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Business English and Teaching of English for Specific Purposes

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Abstract

The world experience of economic development shows that global changes took place in the sphere of education, including Business English. Business English has an important role in our life and is a key to the world of Business. English is the world's leading language studied mostly as a foreign language around the world. Researchers have been investigating how Business English is learned looking from different angles within the framework of ESP (English for Specific Purposes). It is vital to understand the essence and role of ESP and Business English. It is obvious that many institutions offer special courses to the people who are young in order to improve their skills. More active actions and multidisciplinary approaches in the same field will definitely lead to the new findings. Globalization will continue to fulfill new requirements and promote Business English.

Keywords: Business English, English for Specific Purposes, Business communication, Business correspondence.

Introduction

Business English and business communication are relatively new areas of study for the Azerbaijani learners of English. Business English and business communication have become vast subjects for students, economists, businessmen and teachers of English over the past 28 years with the transition to market economy, as the Republic of Azerbaijan became independent in 1991. Our Republic is rapidly developing and the relevant orders have been issued for the improvement of teaching of foreign languages in the higher education institutions, including the Azerbaijan State University of Economics (UNEC). Dual diplomas, student-teacher exchanges, organization of scientific seminars in English, holding international conferences and the steps taken recently by UNEC have created an incentive for the English language among students and faculty members (university collaborators). The English language teaching process is one of the priorities not only at UNEC, but also at the other Azerbaijani universities and institutions and every study on elimination of its teaching problems is urgent and should be evaluated positively.

Method

Using the qualitative research methods, teaching business English for special purposes was analyzed and developed in various directions. To form students' lexical skills necessary for foreign language professional communication in the field of economics. Business English teaching focuses on developing both the language and the style of typical business skills, acquainting the reader with the concept of "vocabulary of professional communication"; determining the essence and structure of terminological vocabulary; identifying the differences between "terms" and "professionalisms".



Communication is our lifeblood, and it's the lifeblood of any organisation. Excellent communication skills are probably the most important career and personal skills you can possess. But people aren't just 'born' writers or speakers. The more you write and the more you speak, the more your skills will improve. Improving your communication skills will put you ahead of other people when it comes to getting a job, gaining promotion, even just getting your job done. More importantly developing your communication skills will help you to build successful both personally and professionally. (*Shirley Taylor, 2012*)

People from different paths of life would like to get a better idea of the English used for business purposes and the business world. Therefore, it is advisable to introduce these fairly new and rather complicated subjects step by step, mediating understanding and purposefully avoiding conceptual leaps. In practice, it means explaining the underlying terms and demonstrating the complexity and interrelatedness of things in the reality of business communication, without misleading simplifications and misrepresentations. (*Nazarova T.B.2008*)

In recent decades, a business foreign language has continued to attract keen interest among the business people all over the world. Those who want to learn and to master business terms and business language seek effective ways of learning. The students of economic based institutions and universities are interested with the effective learning of Business English and business communication. Foreign language courses which are organized by educational institutions and numerous language training centers, offer different versions of foreign language teaching for successful communication of business people. (*Makeyeva M.N. 2008*)

The British Council offers services for the preparation and reception of a certification exam for business English. As a part of the International Association of Teachers of English as a Foreign Language, more than 1,5 million members around the world are included in the Business English Section. Nevertheless, despite the huge interest in it, the business foreign language remains as a less studied sphere by linguists: they prefer well-established varieties of foreign language for specific purposes. The goal of the “Business English” is the improvement of the systematic knowledge of basic issues of Business English as a means of global communication, forming general understanding of key business terminology, teaching students to adequately interpret certain features of cultural behavior in business-related contexts. The educative goal of the course is to develop socio-cultural competence and cross-cultural tolerance in students. On completion of the Business English course students are also supposed to be able to use computer-based technologies in business-related contexts (writing business e-mails, using online and offline electronic dictionaries and glossaries). The innovativeness of the course also reveals itself in the complex approach to Business English as an interplay of various registers.

Lots of people find business writing challenging. It is possible to motivate it by the fact that business writing requires decision making about a startling number of factors, unconsciously or consciously. Often, it is not a problem for routine messages if someone makes those decisions unconsciously. However, it can be an important problem for more complex messages. The word- world of business- in this context means a particular area of activity or work, and the people who are involved in it, for example: the world of politics; an influential figure in the business world; the show business world. (*Longman Dictionary of Contemporary English, , 2014*).

Business is a firm or person, company or other organization with the purpose of making profit by manufacturing product, buying and selling goods or providing services; trading generally; the practice of commerce. In the post-Soviet countries, the term business invariably carried a tint of negativity. Undeniably it was a westernized concept and was treated consequently- kept on the edge of standard usage and restricted to a limited number of language users. (*Nazarova T.B.2010*). The names of the phenomena and concepts of the socio-economic spheres are included to economic terminology. It forms the actual part of the lexical system of the language. Developing and changing with society, economic terms represent a history of economic forms and economic ideas. The ties of economy is extremely connected with the socio-political life of the country. The consequence is as following:



the penetration of socio-political terms into economic terminology (strike, democracy, kakistocracy, full employment, privatization, demutualization, entrepreneurship, price denationalization, public ownership, redistribution of income etc.). (Mascull B. 2010). The economy is a part of social and political life, and therefore economic terms, in their turn, are included in the field of socio- political terminology. Bill Mascull made a new attempt at systematizing and structuring essential business vocabulary. The thematic classification of business terms is presented in his book “Business vocabulary in use” in 40 units. Bill Mascull’s books presented foreign students of Business English with a wide range of paradigmatic connections and associations between business terms. (Mascull B. 2013).

The same was true of concepts like income, profit, capital, share, shareholder, entrepreneur and many others. However, gradually, with its restrictions and limitations the command-and-control reality gave way to the market economy. In present-day standard Azerbaijani language, nothing is wrong with word-combinations and short utterances like; open your own business / business; to run a business; open your business; he is a businessman; he has a solid income; firm / company capital; to run a civilized business etc. The former negativities have subsided under pressure from the new realities and priorities. Several terms testified to the spread of market economy in the Republic of Azerbaijan as follows: kapital, kapitallaşma (capital, capitalization), market (market), portfolio (portfel), investisiya portfel (portfolio; investment portfolio), kredit, kredit reytingi (credit, credit rating), tranzaksiya (transaction), audit (audit) etc. (Longman Dictionary of Contemporary English., 2014). These, and many other, terms sound fairly new to the native Azeri speakers; their English counterparts, however, have been part and parcel of standard business usage for a long time and have rightfully been included in “Azerbaijani-English Economic dictionary” compiled by A.A. Aghayev. (Aghayev A.A. 2010)

As a part of economic terminology you can find on the one hand, terms that will be incomprehensible to a wide range of native speakers, for example: futures, warrant, dispatch, factoring, and on the other hand, such terms that are known to the overwhelming majority of native speakers, such as market, demand, employment, tax, interest rate, debt, credit. The analysis of texts on the discipline “Business English” showed that they are dominated by economic terms that are widely functioning in the socio-political speech practice. The frequency of use of economic terms today is much higher than the frequency of use of scientific and technical terms. At the threshold of the third millennium, significant quantitative and qualitative changes occurred in the vocabulary of the English and Azerbaijani languages on the economic sphere, caused by the rapid development of business, economic globalization, the introduction of modern information technologies into the economic life.

Findings

The process of formation of the professional language for economists is as follows:

1. Professional vocabulary is formed on the principles of complementarity: insufficient meanings of market terms are added to the basic registry.
2. Its derived from the capacity of memory and pass into the active vocabulary of a cultural series, related to the general conception of a market economy; general history, literature, cinema are the sources of information; the knowledge is involved on the history of economic studies and economic history.
3. The mass translations of English economic literatures, predetermining the language and peculiarities of borrowing have an important role in the formation of the dictionary.
4. The changes influenced to the terminology of professional vocabulary of economists in the adjacent sciences.
5. The transition of scientific terminology to everyday vocabulary is not occasional.
6. A new terminology is being created in a number of areas of economic research.
7. The speech standards are reduced, first of all, by attracting the corporative slang of the “black marketeer”, as well as the everyday slang.



The study of English lexical and phraseological neologisms in the field of economics shows that the English language creates resources for replenishing the word stock of the economic sphere primarily within its own system: due to word-formation and semantic derivation, as well as through interviant contacts, and professional jargon; foreign language borrowings in the new economic English vocabulary insignificantly. The changes that have occurred in the last decades in the economic sphere of the life of an English-speaking society are reflected not only in the lexical and phraseological neologisms, but also in innovative semantic and word-building processes. (*Mascull B.2013*). A significant concentration of neologisms are observed around the concepts associated with the modern macroeconomic trends of world development, with the globalization of markets, the reorganization of enterprises, personnel management and the introduction of modern information technology. The centers of innovation processes were such socio-functionally labeled units as; economy, entrepreneur, global, corporate, market. These take an active part in word-formation processes, even at the expense of fragments that turn into derivational elements:-nomics, wiki+nomics,) -omics(women+omics), -preneur (entre+preneur) . (*Mackenzie I.2010*) . The sphere of e-economics completely or partially uses a whole range of new word-formation elements (info-, tele-, cyber-, e-) and lexical units, or their individual lexico-semantic variants (digital, information, electronic, physical, online, INTERNET, Intranet, virtual). The role of the language of the economic sphere in the presentation of innovations in the common language, in enriching the phraseological fund, is becoming increasingly noticeable.

For mastering the economic terminological units, it is necessary successfully to solve communicative tasks in the professional sphere of communication. We offer a set of tasks for familiarization, training and control on general and highly specialized vocabulary of English. Tasks are based on the original English and American texts from the world economic textbooks. The subject of the texts cover the basic economic issues:

- The contradictions between limited resources and unlimited needs of people;
- Tasks of empirical, theoretical and applied economics;
- Scientific methods of knowledge used by economists;
- The main economic goals adopted in society;
- Types of economic systems;
- Classification of production factors;
- The problem of minimizing production costs;
- Economic functions of the government;
- Structural, cyclical and frictional unemployment.

At the same time, unlike other varieties of a foreign language for special purposes, a business foreign language is an integration of specific content (corresponding with a specific professional activity) and general content (connected with general effective communication skills in business situations).

The purpose of Business English is to help university students, especially those studying economics, finance and management, accounting etc. as well as businessmen, in order to actualize the language norms and rules in real professional communication.

The essential material, based on modern authoritative sources in the field of Business English for specific purposes, theory and practice of translation and interpretation, practical tasks aimed at solving communicative problems in specific business situations should be taught to the students.

Firstly the basics of knowledge about the vocabulary of professional communication, including the definition of the essence and structure of terminological vocabulary, identifying the differences between "terms" and "professionalisms", describing the specifics of economic vocabulary should be given in the teaching process. It is possible to significantly expand the scope and composition of the vocabulary units necessary for reading and



understanding of professionally oriented text, to form skills for lexically acceptable formulation of oral and written statements in an economic context.

Secondly we turn to the study of the specifics of scientific and business speech in English in the framework of the studied specialty. The students will get acquainted with the concept of a functional style, determining the definition of a scientific style, learn about the inner of the stylistic and genre varieties of the scientific style, reveal the specific peculiarities of the scientific style and linguistic means of their manifestation in professional writing (using the example of an English economic text), clarify the concept of official business style, its sub-style and properties. Specific examples of business style (summary, agenda, business letters, emails, faxes and memos) and instructions their compilation will help to master the specifics of the official business style of speech. Practical tasks for comparing the formal style of presentation with the informal contribute to the assimilation of the foundations of scientific presentation.

Thirdly the problems of general regularity of translation transformations, the formation of the skills of translating English texts of various genres within the framework of scientific and business styles of speech should be clarified for the students. The meaning of translation within the framework of the communicative-functional model of translation is clarified, the levels and difficulties of meaningful text analysis are stated, dominants that ensure the invariance of the text while translating scientific and educational texts, instructions, business letters, newspaper-information texts are revealed; some lexical and grammatical transformations are analyzed as a means of achieving the semantic equivalence of the translation; English economic texts are offered for their semantic analysis and translation.

The fourth is aimed at developing the skills of communicating in a foreign language in a professional context. Its goal is to form and improve the communicative skills and abilities of students studying business English, that is, the ability to communicate through a foreign language in various situations in the process of professional interaction with other participants in communication. For the solution of the assigned tasks, topics such as Job Interview, Presentations, Business Meetings, Negotiations must be proposed.

In the fifth, the students should have an opportunity to put into practice the developed communication skills for solving specific problems in real business situations. The improvement of the communication skills of a specialist is carried out due to plausible context and strengthening of the elements of problematical character, promoting the development of thinking mechanisms and argumentative discursive skills of students.

Vocabulary of professional business communication

The term “lexis” (from the Greek. Lexicos - verbal, vocabulary) is understood as a collection of words related to the scope of their use. The lexis of professional communication is a vocabulary inherent in a certain professional group and used in the speech of people united by a common profession. The vocabulary of professional communication consists of three layers: 1) common used (neutral), 2) terminological, 3) professionalism.

Common lexis includes the most common words used independently of the style of speech, which can be found in all types of oral and written statements. It includes a significant part of nouns (chair, economy, book, world, word, progress), adjectives (wide, right, written, past, potential, present), verbs (to make, to take, to go, to solve, to read), all numerals and pronouns, most adverbs, prepositions and conjunctions.

Terminological vocabulary - the words or phrases denoting special concepts of any sphere of production, science, art etc. In contrast to common words - often polysemantic-term, as a rule monosemantic-terms are not inherent to expression as well. Every branch of knowledge operates with its own terms, forming the essence of



the terminological system of this science. “The terms in the field of lexis and the formula in the field of syntax are those ideal types of language expression to which scientific language inevitably tends. (Abbasova A.M. 2013) Some “layers” should be included to the terminological vocabulary, distinguishing the sphere of common use, features of the designated object:

First of all, these are general scientific terms that are used in various fields of knowledge and in general belong to the scientific style of speech (analyze, function, identify, significant). These terms form a general conceptual fund of various sciences and have the highest frequency of use.

The specific terms are also distinguished, which have been obtained on a certain scientific disciplines, branches of production and technology; for example, in the economy (equilibrium price, quantity demanded, frictional unemployment, entity); in accounting (cash receipts, going concern principle, gross profit). In such terms, the quintessence of every science is concentrated.

Unlike the other vocabularies, terminological vocabulary is so informative. Therefore, the terms are indispensable in the language of science; they allow to briefly and accurately formulate a thought. The frequency of the use of terms depends on the nature of the presentation and text addressing.

Professionalism is the words and expressions inherent in the speeches of a particular professional group. Unlike terms, they do not form a system, as a professional name is often conditional or built on a metaphor, the term of scientific meaning tends to reveal the essence of the concept. Professionalism often act as a colloquial equivalents of terms, for example, cut down, that is, turn off (from the speech of electricians), batten down, that is, close tightly (from the speech of sailors). In economics, for example, speaking of managing in offshore companies, the phrase “throw on the pillow” is used. Professionals know that this is a procedure shelter for offshore profits from taxation. Professionalisms serve to differentiate and specify meanings.

“Business English” language for specific purposes

Teaching of foreign languages at our university is carried out in a complex manner: phonetics, grammar, lexis are taught in parallel, special attention is paid to the study of economic terminology. In addition to this, language skills such as reading, writing, listening, speaking and, interpretation of the original texts, their free interpretation, business letters and writing documents are put into practice. Practical language learning is the first stage of foreign language teaching. Language elements are studied in close proximity. Knowledge, skills and habits are gained through reading the text independently and communicating freely with the interviewer around the text. At this stage, special attention is paid to the development of students' oral speech. For the speech material professional, sociopolitical, texts related to the life of Azerbaijan, as well as the language of the country we are learning.

The student learns 2500 words and phrases in the teaching process and is able to freely use them in verbal and written speech. In the second phase of the course, a non-business language is taught. The student acquires the minimum terminology in his / her specialty and has the ability to read and understand the original texts, to communicate freely with his / her profession, to make independent comments and judgments, and to use the various scientific sources. The main focus of the course in the teaching of non-formal foreign language is to help students understand the oral speech. The main purpose of foreign language teaching is to enable students to practice the same language. In other words, when completing a student, learning foreign language course, must be able to read and understand the original literature in a foreign language on the specialty and participate in oral debate on any topic in the field of economics. (Nabiyev N. H. 2013). Later on, the student gains skills such as free communication around the world economy, compilation of business documents.



The materials are mainly based on modern teaching and learning methods of foreign languages, the development of innovative and effective reading, writing and listening skills, strengthening vocabulary, new strategies, various fields of economy, entrepreneurial activity, modern terminology relating to foreign economic relations, cooperation and technical assistance forms, joint ventures, marketing, insurance, transportation, exchange, customs, exhibitions, fairs, tourism, financial and financial institutions, diplomacy, concluding and implementing various contracts.

Texts and assignments, business relationships, insurance, leasing and cooperation with different types of economic and daily life, contracts for mortgages in Azerbaijani and English will become valuable aids for students. Specialists in the field of international economics are facing with certain language problems in order to create an optimal management model, organize a modern sales system, and provide the necessary services properly. Nowadays, the education and training technologies in the world economy are rapidly changing and naturally, are increasingly used in the establishment of international business and regional relations from commonly used economic concepts in the process of rapid change and modernization. As we know, today's latest technology becomes obsolete of tomorrow's technology. Foreign entrepreneurs engaged in entrepreneurial activity, local legal entities and individuals have to apply frequently to economic terms in establishing business relations, including contracts, negotiating and rendering services. The use of actual diplomatic, political, economic, speech labels and models in foreign languages, as well as teaching materials and literature used to improve the speech process, is a generalized set of scientific and practical knowledge in this area.

Results, Conclusions and Recommendations

Business English and business communication is one of the rapidly developing areas of foreign language research, which means that knowledge of the language and its function will be incomplete without taking into account the peculiarity of the language of business communication, which constitutes an essential layer of communicative competence.

The task of business communication is to reveal the features of interpersonal and mass communication in one of the multifaceted spheres of human communication - business interaction. At the same time, taking into consideration the fact that the English teachers are not the experts in the field of economy. They try to explain the basic concepts used in the business field, thereby help the student to master unfamiliar linguistic material. General knowledge about business communication, business meetings and negotiations, their planning and implementation and making a successful presentation or telephone conversation should be offered on the recommended tasks.

In our opinion, the study of various contexts of monological and dialogical character of business communication and Business English can promote the formation of linguistic and socio-cultural competence of specialists, and also can facilitate the process of social and professional business language adaptation of the future specialists.

References

- Abbasova A.M. (2013) *Business English*, Baku.
- Aghayev A.A. (2010) *English-Azerbaijani Economic Dictionary*. Baku.
- Longman Dictionary of Contemporary English, sixth edition. *Longman Dictionaries*, (2014).
- Mackenzie I. (2010) *English for Business Studies: A Course for Business Studies and Economics Students*. Cambridge University Press, United Kingdom.
- Makeyeva M.N. (2008) *Business English for students of economics*, Moscow.
- Mascull B. (2013) *Natural Business English*, Delta Publishing.
- Mascull B. (2010) *Business vocabulary in use*. Intermediate, Cambridge University Press.
- Nabiyev N. H. (2013) *English on Economics*, Baku.



Nazarova T.B. (2008) *Business English*, Moscow.

Nazarova T.B. (2006) *Business English*, Moscow.

Shirley Taylor. (2012) *Model Business Letters, Emails and other documentations*. 7th ed. Pearson Education Limited.



Methods of Optimization of Income and Expense of the Organization

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Abstract

It should be noted that the increase or decrease in the profitability of the entity is related to many factors that are or may not depend on the level of economic activity. Important factors should be emphasized in terms of sales volumes, reduction of production and circulation costs, and price factor. It is important to emphasize that there are interdependencies and different tendencies among the factors mentioned. So, increasing the sales volume may require a lowering of your product and service cost. At this time, it is impossible to exclude the need to buy resources at higher prices. Of course, the apparent increase in the volume of sales may lead to a decline in costs for the product unit, and the lowering of the cost value of the product may lead to a decline in the quality of the product and, consequently, a decline in demand. The price factor affects different aspects of the price of the product or purchased resources.

Keywords: Income, Expense, Cost, Sales volume, Product

Introduction

It should be noted that the increase or decrease in the profitability of the entity is related to many factors that are or may not depend on the level of economic activity. Important factors should be emphasized in terms of sales volumes, reduction of production and circulation costs, and price factor. It is important to emphasize that there are interdependencies and different tendencies among the factors mentioned. So, increasing the sales volume may require a lowering of your product and service cost. Currently, it is impossible to exclude the need to buy resources at higher prices. Of course, the apparent increase in the volume of sales may lead to a decline in costs for the product unit, and the lowering of the cost value of the product may lead to a decline in the quality of the product and, consequently, a decline in demand. The price factor affects different aspects of the price of the product or purchased resources.

Increasing profitability of farmers depends largely on the level of revenue and expenditure and their optimization. Revenue and expense optimization involve finding additional options for improving performance.

Of course, increasing the organization's revenues is primarily accomplished by increasing product sales and sales, and improving the quality of the product by using cutting-edge technologies. In the modern era, competitive product production paths are diverse, and in general, this is due to increased product quality and production costs. Notwithstanding, there are a number of issues related to improving the quality of the product - improving the quality of the product, improving the technical level of the production, developing methods that characterize the quality of the information, the characteristics of the products with a higher specific weight economic content, the design, analysis and interpretation of the models that reflect the impact of the technical level of production on the quality of the product, and especially those of other types. About cost reduction, productive use of production resources at the expense of increasing the organizational and technical level of production will reduce the cost of the product.

One of the issues of raising corporate income is optimization of costs to minimize losses during product cost management and sales. The cost optimization tool includes tools for routine management and planning. From the point of view of efficiency, it is important to emphasize that if cost reduction does not affect the production process and the overall quality of the product, optimization of revenue and expenditure is relatively "painless".



Optimization of expenditures is a measure of the amount of expenses that maximizes the profitability of the same under other equal conditions. Excluding costs (many or less), or excessive overheads or a decline in production, will result in a decline in theoretically the amount of profit. When designing the budget, mitigation of costs on items is usually not accompanied by actual cost savings, because no change in the business process at this time. It is particularly important to emphasize that in some cases, even if the actual cost reduction is achieved, its positive effect will be short-term and negative consequences will soon come to an end.

Method

The solution to the problem of income and cost optimization in the organization depends on the expectations of first-class optimization rules. Thus, the purposeful solution of this issue allows the organization to achieve maximum efficiency with fewer losses. Minimizing costs is a good idea to achieve. Of course, it should always be an attempt to effectively manage, rather than reduce costs. Thus, their minimization and maintenance at the required level can be optimal. Sometimes it is necessary to increase expenses for certain directions in order to reduce overall costs.

For the purpose of optimization, the following grouping of costs is appropriate:

- raw materials, input costs;
- production costs;
- expenditure on financial transactions;
- general and administrative costs [79, 93, 108].

Expenses are distributed among each of these groups for the same sex function. For this purpose, a list of the functions performed first within the enterprise is compiled. Executive, labor, time, other resource costs, and after each function Expenses are distributed among each of these groups for the same sex function. For this purpose, a list of the functions performed first within the enterprise is compiled. For each function, performance, labor, time, other resource costs, and then features that are not too costly are defined. The formal work will be completed, and the creative phase will be started: methods that will reduce the cost of more cost-effective functions should be found and already and recurring functions should be identified and eliminated, and the same resource should be sought in several functions.

It is absolutely unacceptable to deduce the expense items in the process of production optimization in the following sections:

- Maintenance costs and maintenance costs (lack of service is causing equipment failure, production disruption, financial loss);
- quality control of the product. Production and enterprise-controlled products are essential to losing customers and attracting new ones.
- Staff maintenance costs. Compensation of employees' labor is the fulfillment of their duties, at the same time, the loss of employees negatively affects the production and sale of the product.

In our view, the following set of rules should be expected in the process of the optimization plan:

- It is necessary to periodically deal with costs, not when required.
- In some cases, it is possible to achieve a reduction in the total cost of expenditure at the expense of increased expenditures for any direction.
- Each expense unit must yield a maximum result.
- There can be no shortage in spending cuts.
- Cost reduction cannot always be the maximum. Minimizing costs can be optimal by keeping the acquired level back later.



- It is dangerous to reduce expenses (insurance, product quality, protection, etc.) that protect against major losses.
- All employees should be involved in the cost reduction process and each must have a personal assignment.
- Cost optimization should be accomplished simultaneously with optimization of revenues.

It is important to consider that a number of questions must be answered to justify the decision to reduce any costs:

- How can you increase the effectiveness of reducing costs and is this possible?
- How can this cost reduction affect the activities of the organization in one or several years?
- How much are the costs associated with the risks and how their decline will affect the likelihood of these risks?
- What are the responsibilities and functions of these expenditures, and their volume does not have critical weight?

The cost optimization policy is more urgent in crisis situations. Reducing communication costs can play a key role in raising cash incomes through expanding the sales network. Looking for ways to increase revenue before reducing costs (what's new to customers, finding new buyers, finding markets, lowering the cost of their goods and services). In order to minimize the risk of non-repayment of debtors, the entity should periodically monitor the customer's credit history (purchase and repayment date). Customer credit repayment capability can be assessed based on the credit history of its relationship with the entity. Comparative analysis of the costs and benefits of credit policy should allow for identifying a strategy that the number of outstanding receivables is expected to be recovered. At this time, discount programs are used to pay in advance, cash payments and receivables in advance.

If revenue cannot be increased and costs are minimized, then their structure should be seriously analyzed. For example, if travel costs are large, it will not be possible to reduce the cost until you know how much money is spent.

The dramatic increase in revenues in comparison with the enterprise's expenses contributes to its successful activity. Reduction of expenses is carried out by searching for expense items that do not affect production based on analysis of the current estimate of the enterprise.

Findings

Expenditure optimization can be carried out using one of three models of expenditure reduction in the budget:

- Express;
- Fast;
- Systematic.

Costs of the first model are divided into several groups. Financing capabilities are calculated based on cost priority: - high priority costs (it is not possible to continue the operation of such an enterprise without cost) - the necessary raw materials, fuel, labor payment and so on. expenses on - priority costs (costs that can be caused by interruptions or downtime in business venture). Optimization for these costs is inaccurate. - possible costs. This includes the promotion of staff training and discounts. It is possible to stop this group expense (especially under financial difficulties); - unnecessary costs (financing of activities that do not affect the performance of the entity and the quality of production). Such costs can easily be abandoned.



The rapid redundancy model explicitly assumes that certain groups will not be able to cope with costs, but will save on current financial costs:

- Reduction of raw materials and supplies. The probability of product quality decline before the cost optimization process should be considered. From the point of view of this issue, it is common practice to revise the contract with consignors or seek new partners.
- Reduce costs for transport and communications services (as a classic solution, parking lot is reduced, new internet, telephone, new power supply contracts). It is aimed at searching and evaluating the cheapest options of all enterprise divisions of the enterprise.
- Reduction of salaries and staff. Most organizations prefer this variant first. Of course, the optimization of the staff should be such that the lack of workforce does not adversely affect the production process. Reduction of wages must be replaced by discounted amount, free meal, improved health insurance.

Systematic reduction involves more cost-effective management of all budget expenditures and business mechanisms:

- Reducing some investments in favor of quality. Most organizations prefer investment in new technologies in order to increase profits. Management of resources and optimization of investments can give effect if they relate to perspective projects.
- modernization of trade relations and constant search of new consignees (self-governing bodies or organization's management are looking for more favorable contracts with suppliers).
- economical production. The essence of the organization is considered by the potential customer. The focus is on the final product (not its preparation method), resulting in reduced production costs.

The following methods are used to evaluate the costs of reducing costs:

Cost name	Expenditure items	Total
Implementation of Pareto Law	20%	1/20
ABC method (active base costing)	25%	1/25
Target-costing method	30%	1/30
Kaizen-costing method	35%	1/35

The ABC method assumes that costs are split into expenditure items. It uses the same method to determine the real expense level, the lower margins of the calculation items, and the cost of the transaction. In this case, basic production processes, production costs and product costs and their carrier rates are defined. Cost driver - measures the activity's activity and is calculated by the following formula:

$$Rd = P / D$$

Here, Rd- the cost carrier rate, P - process costs, D - the cost carrier (transaction number).

This method is widely used in accounting estimates of product cost in management accounting. It creates favorable conditions for lowering the product cost and optimize costs and is intended to allocate overheads for each product unit produced.

Based on the Target Costing model, the product cost is based on market value and profit. The main indication of this method is the target value of the product, and it is calculated as the difference in the price. The application of this method involves the following consistent stages:

- a) identifying the target cost value of a product unit and cost;
- b) comparing the targeted cost value with the cost value;
- c) preparation of measures to eliminate differences.



The main goal of the Kaizen-costing method is to achieve high returns with high levels of revenue and minimize high profits. Unlike the Target Costing model, the use of this method determines unnecessary costs until the product is fully ready and measures are being taken to reduce them. For example, Toyota is testing the possibility of damage to the environment by their moving parts before the vehicle is fully used. If any problems are identified, then this problem is eliminated and the machines are put on sale, or more precisely, such costs that are likely to occur in the future are predetermined and eliminated. Thus, the above-mentioned methods help reduce and optimize costs and achieve high returns on the net.

Results, Conclusions and Recommendations

In the conditions of a developed modern market economy, the main goal of each enterprise is to obtain high profits. The high volume of profits largely depends on the level of income and expenses, their optimization. Under the optimization of income and expenses refers to the search and identification of additional options for their reduction / increase, application in practice. To increase revenue optimization should pay attention to the following.

1) Ways to increase profits.

- Increase the volume of production and sales of products. To this end, an increase in online sales is one of the main factors.
- Improving product quality with the use of new technological equipment. In production, you can increase the quality of products by using new advances in technology and attracting new equipment. At the same time, raising the level of education of workers will have a largely positive impact on product quality.
- Sale or rental of unused equipment. Selling or renting equipment that is serviceable, but for some reason is not used in enterprises, can also lead to higher incomes.
- Effective use of inventories and labor resources. Computerization and automation of production leads to the rational use of inventory and labor resources, which, in turn, is the reason for increasing income.

2) Ways to improve profitability

- reduction of costs for the production and sale of products
- increase the cost of production by improving its quality
- improvement of production assets
- increase production and management.

One of the ways to optimize revenue is to control the cost of production while minimizing losses when selling products. To solve the problem of minimizing losses, a special program should be compiled. This program should be comprehensive and aimed at exploring the factors affecting loss reduction.

An integral part of this program is to increase profits by influencing labor-intensive and able-bodied indicators using new equipment and technology, material resources. For this reason, along with commodity labor, it is necessary to look for ways to reduce the costs of living labor, which leads to an increase in profits.

Much attention is paid to this source in labor-intensive production areas.

Use of machinery and equipment produced in the country and abroad, increasing labor productivity and reducing the labor intensity of products through the application of tried and tested technologies in production, reducing unnecessary staff and jobs, improving the system and management structure, combining small workshops and production areas, reducing labor the cost of re-work on the correction of defective products, the elimination of payments for downtime and additional working time during the holidays, non-working and other organizational



and technical measures aimed at reducing wages may lead to an increase in profits. Since the organizational and technical measures to reduce wages are different, the methods for calculating their impact on costs and profits also differ.

References

- Abbasov Q.A Principles of managerial accounting. Monograph. - Baku, Science. 2006-275 p.
- Aleksandr D., Brittone A., Yoichissen A .. Financial Standards for Financial Reporting: From Theory to Practice. Translation from Russian. Prof. Under the guidance of S. Sabzaliyev / - Baku."University of Economics". 2010-762p
- SABzaliyev SM, Guliyev V.M. Management flew. - Baku. Science and Education, 2014. - 524 p.
- Абрютина М.С. Express-analysis financial reporting: method, subject / MS Abrutina. - М.: Издательство «Дело и Сервис», 2003. - 256 p.
- Kondrakov N.P., Ivanova M.A. Management accounting: Ucheb.posobie. - M.: INFRA-M, 2013. - 352 p.
- Krylov E.I., Vlasov V.M., Zhuravkova I.V. Analysis of financial results, profitability and cost of production. - M.: Finance and Statistics, 2005. - 716 p.
- Kuvaldina T. B. Information on changes in estimates: disclosure in financial statements / TB. Kuvaldina // Audit bills. - 2009. - № 9. - Reference and legal system "Consultant Plus"
- Kuznetsova A.A. Formation of production costs. - M.: Tax Bulletin ", 2003. -208 p.
- Kuter M.I. Accounting Theory: Textbook. - 2nd ed. reclaiming and add. - M.: Finance and Statistics, 2002. - 640 p.
- Larionov A.D. Accounting financial statements: studies. manual / / A.D. Larionov and others. Ed. HELL. Larionov]. - M.: TK Velbi, Avenue, 2005. - 208 p.
- Lyubushin, N.P. Economic analysis / N.P. Lyubushin. - M.: UNITI, 2007. - 423 p.
- Maksyutov A.A. Economic analysis. - M.: Unity, 2005. - 543 p.
- Marenkov H.JI. Accounting and financial reporting in commercial organizations: Tutorial / H.T. Marenkov. - M.: Exam, 2004. - 336 p.
- Matveev, A.A., Suits, V.P. Consolidated reporting: methodology and practice: A training manual. - M.: Publishing House FBK-PRESS, 2001. -173 p.



The Role of Education in Raising the Efficiency of Human Resources Use in Azerbaijan

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Abstract

Azerbaijan is currently experiencing improvements in its economic development model. Today, the vast majority of economic reforms have been completed in our country. The article considers investigated adequate mechanisms and identified directions of the use of human resources in the country in socio-economic challenges of the modern era. There were analyzed organizational and economic mechanisms of the search process of the reforms in education, raising the level of education, implementation of measures to form a modern vocational education system, the increasing investment which focuses on human development, adequate mechanisms of human capital development at the level of modern requirements. As one of the most noticeable areas of the modern era, it is the qualitative improvement the use of human resources in working places and working conditions. The article also includes the assessment of such factors.

Keywords: Human resources, Efficiency, Human capital, Reforms in education

Introduction

Under current conditions, the development model associated with the assurance of sustainable economic development in Azerbaijan is in the process of improvement. Thus, our country is demonstrating a stable macroeconomic development model; moreover, it is at the stage of successful realization of such measures as diversifying the national economy, raising its competitiveness, forming the sources of economic growth through the most efficient utilization of national resources, as well as human resources, and accelerating socio-economic development in all regions of the country. Nevertheless, as a long period of time is required for the implementation of processes aimed to reduce dependence of the country's economy on mineral resources, oil prices have decreased on the world markets, as a result of problems in the credit and financial system, difficulties occurred in regard to the consequences of the global financial crisis for the last years, devaluation of the national currency of our country, negative tendencies in the banking system, an increase in problem loans and other such issues the processes of strengthening the sustainable economic development criteria of Azerbaijan have been relatively facing problems. In such a situation, to intensify development indicators of the national economy, a serious necessity has arisen for enhancement of the efficiency and productive use of the country's resource potential and improvement of the relevant processes.

Today, one of the strategic objectives facing our country is to provide sustainable economic development and increase the living standards of the population through further modernization of the socio-economic life and adaptation to the best world practice. Modernization is primarily associated with the successful application of advanced technologies and management techniques, as well as the application of innovation created based on scientific and technological progress in the socio-economic life of the country. The main direction in this regard is the acceleration of the integration of national economy into the world economy, as well as the development of human capital in the country and the assurance of the acquisition of modern knowledge and skills by a person. As a result of new order and developments, it has gained topicality importance of having manpower and labor, and at the same time the necessity of establishing a qualified society for ensuring economic development (Zeynalova Z., 2017; p-13). Being one of the most important conditions in the process of successful integration of the economy into the global system and reaping benefit from the international competition, the development of human capital is the main objective of the education system of the country.



Following the development concept of the Republic of Azerbaijan, to provide the individual with comprehensive knowledge and skills institutional bases, infrastructure and human resources should be developed. The educational development creates a basis for the improvement of the population wellbeing in the country and building high-quality life for the individual. Education allows people to promptly adopt technology, to get a decent place in the labor market, and to join the lifelong education process, to choose a healthy lifestyle and the right attitude towards the environment.

Human resources and related labor resources are of great importance among the country's economic resources and have specific features significantly impacting on sustainable economic development. Prof. Sh. Muradov and a group of researchers note that the labor market is one of the most complex elements of the market economy. The labor market ensures the distribution and redistribution of public labor over the various sectors and areas of activities of the national economy, identifies the level of efficiency of employed labor and forms the real demand and supply of human resources (Муратов Ш.М., Гёзалова А.К., Эфендиев Р.Дж. 2007; p-264). Prof. T. Guliyev noted that the main purpose of human resources management is to efficiently benefit from their potential and creative capabilities. In the prevention of risks, Japan gives priority to human resources, assurance of intra-company stability and resource-saving, while the USA gives priority to financial resources and dynamic development of capital (Quliyev T.Ə., 2001; p-522). As we can see, Japan as one of the strongest countries in terms of economic development attaches great importance to human resources, and as a result, the cycles of the prompt delivery of human intellects to production processes in the country has been organized optimally. Moreover, today, conceptual approaches to human resources management and the principles of systematicity are more needful, so the relevant complex, long-term measures need to be implemented. To ensure the efficient use of human resources, the features of these resources affecting economic development processes and factors of human motivation should be seriously taken into account (Əliyev T.Q., Əliyeva Ş.T., Əliyev T.R., 2012; p-303). At the same time, the historical features of human resource management and its impact on the development of public relations should be widely observed (Məcidbəyli R.X., 2013; p-112). At the same time, the assurance of the most effective management of human resources and their effective use should be in the focus of attention as an important issue such as balancing human resource management in the context of social development (İsmayılzadə Ə.A., 2012; p-472). The researchers, H.Allahverdiyev, K.Gafarov and A.Ahmadov state that the labor market is an integrated system reflecting all elements of economic circles. Effective use of labor resources can be observed in two ways. On the one hand, employment of the able-bodied population to eliminate unemployment, and, on the other hand, the employment of qualified personnel and specialists able to meet the demand of the economy. Efficient use of labor resources and its placement over economics areas is a perpetual problem (Allahverdiyev H.B., Qafarov K.S., Əhmədov Ə.M., 2012; p-508).

Method

In this respect, due to a large number of internal regulators of the labor market in the country as well as considering the social importance of its effective functioning, it is necessary to effectively manage and regulate the labor market. Therefore, the main priority is to ensure efficient use of labor and human resources and to cover the employment of the labor force existing in the country. Hence, the main problem is the appropriate determination of the development priority and implementation of the relevant comprehensive measures, in this case, additional opportunities may arise for balancing labor and human resources and optimizing their use regulation system in the context of sustainable economic development. In this respect, to regulate the maximum use of labor and human resources, the development priorities should be considered in the following areas:

— first of all, source data related to the labor, human resources and labor force of the country should be thoroughly investigated and clarified;



- the indicator system of the labor market of the country should be analyzed via scientific-economic approaches and adequate regulatory mechanisms should be identified for the gained results;
- necessary components, as well as the composition of the economically active population, should be analyzed to determine the supply indicators of the country's labor force;
- relevant regulatory mechanisms should be developed through studying the current state of the labor market, its balance indicators, and structure;
- analysis of labor market infrastructure and efficiency indicators should be carried out and necessary measures should be taken;
- conceptually strategic targets and relevant regulatory mechanisms should be defined to efficiently involve human resources to the sustainable economic development processes;
- employment of the population in the country, measures for boosting employment on qualitatively new level should be provided and so on.

Improvement of the labor and human resources recording and analysis in the regulation of labor and human resources use can be considered one of the important measures. The researcher, E.Ahmadova, notes that today, increasing the efficiency in the use of labor resources being closely associated with the appropriate placement of the workers within the company requires strengthening the interaction of elements within the "working time-production-money" scheme, which is the attribute of the market economy (Əhmədova E.K., 2011; p-31). At the same time, as important economic development in regulating labor and human resources use, the complex development of entrepreneurship and stimulating and encouraging mechanisms are of great importance in world practice. According to researcher A.Orujov, small and medium-sized enterprises should be used more widely to effectively use local labor resources from the regions of the country (Orucov A.İ., 2013; p-48). This issue positively affects the enhancement of economic development and provides additional incentives, practical tools, and mechanisms to constantly create new workplaces, ensure efficient use of human resources, increase incomes of the population living in the regions, ramp up consumption levels, and in general, to organize sustainable economic development. It is known that more than half of the population lives in rural areas in our country. In this regard, the intensification of the solution of economic problems in agrarian entrepreneurship development in the regions can create new opportunities for efficient use of human resources, as well as provide effective and productive distribution of labor resources concentrated in the regions. While investigating economic problems hindering the development of entrepreneurship in the agrarian sector, E. Ibrahimov states that the dynamic development of the national economy directly depends on the character of country's integration into the world economic system, and the level of the financial well-being of the population directly depends on the effectiveness of entrepreneurship in the country ... Notwithstanding the important activities carried out in the direction of assessment of the level of the relationship between employers and employees, overall assessment of labor market situation, balanced development of the regions, opening new workplaces, comprehensive support of the economic activities, strengthening the regulatory framework for entrepreneurship development, a need for discrete approaches to entrepreneurship occurs at different stages of development. Such a situation is related to changes in entrepreneurship development priorities (İbrahimov E.R., 2011; p-44). Considering the complex and new prerequisites for the problems that led to the slowdown in entrepreneurship development would undoubtedly allow for the formation of modern approaches to the use of labor resources. Furthermore, the expansion of the development of small and medium-sized businesses, along with the labor market regulation, creates new trends in the population's employment boosting. While studying these problems in Nakhchivan region the researcher, N.Adilova notes that there is no sharp unemployment problem in the labor market in Azerbaijan. However, the labor market has quality problems, labor resources do not meet the needs of our economy and these problems should be solved ... To prevent unemployment and solve this problem in the Azerbaijan Republic and the Nakhchivan Autonomous Republic, the development and implementation of the employment program for all populated areas are taken under the control of the government. Today, as the only way to eliminate unemployment is the establishment of a comprehensive environment for the creation and



development of small and medium-sized enterprises, more attention has been paid to the development of this sector at the state level (Adilova N.Q., 2014; p-24). Nevertheless, in order to use efficiently the human potential of the region, with the purpose of carrying out structural changes in the agrarian sector in line with modern market relations and enhancing its impact on employment boosting it was considered important to establish new structures in such an important area of the region's economy and to develop the modern infrastructure for agricultural products sale, which is crucial to raising the incomes of the rural population. All of this, at the same time, will provide an opportunity for a comprehensive overview of the use of human resources in various sectors of the economy, identification of the new development priorities in the management system of the use of these resources and enhancement of the country's sustainable economic development. The formation of qualitatively new models and development priorities for the use of human resources in the regions is directly associated with the determination of economic resources and economic maneuver potential in this sphere in each region of the country.

Findings

There is no doubt that each of these issues is useful in terms of sustainable economic development, but a comprehensive approach to the development of adequate mechanisms and implementation of the relevant measures that will enable the solution of management issues on the use of labor resources and human resource for achieving productivity. Human resources being an important economic resource are capable of intensifying or preventing the country's sustainable economic development by influencing every sphere of the national economy. From this point of view, there is a need for a deeper study of each element of human resources, systematization of their features, and their consideration in the practical processes of economic development.

In the fast-growing Republic of Azerbaijan, there is a need for new steps in responding to the education system to the challenges of human resources development and adapting the quality of education to European standards. To improve the quality of education it is necessary to re-establish the education management system, to improve human resources in this area and to increase the authority of the teacher profession. One of the important steps in educational development in the country in recent years is the "State Strategy for the Development of Education in the Republic of Azerbaijan". This strategy envisages large-scale measures in five strategic directions for the establishment of an advanced education system in the Republic of Azerbaijan for professional teachers and education managers taking leading positions among world countries for quality outcomes and coverage.

The first strategic direction focuses on the creation of personality-oriented educational content based on competence and covers such important goal as development of curriculum for all levels of education, including pre-school, general, primary vocational, secondary specialized, and higher education. The second strategic direction envisages the modernization of human resources in the field of education. The third strategic direction involves the creation of responsible, transparent and efficient management mechanisms in education. The fourth strategic direction envisages the creation of an educational infrastructure that meets modern requirements and provides lifelong education. The fifth strategic direction entails the development of the model of educational system financing in the Republic of Azerbaijan, which is economically stable and meets the same standards as the world's leading educational systems. (Order of the President of the Republic of Azerbaijan 2013).

A professional human resource with a high level of education is the basis of the country's intellectual potential. Today, successful and sustainable economic growth is being achieved through the purposeful development of human capital. All of this increases the priority of education in public expenditures. State education expenditures have high economic profit for society.

In modern life, the role of education in economic has significantly increased. At the moment, education should implement such duties as the tanning of the required knowledge and skills in the economy, as well as the



comprehensive training of the citizen for the integration into future life and society. The most important factor raising the role of education in economic life is the satisfaction of human need in lifelong education. At the same time, rapid technological progress requires regular updating of knowledge and skills. This increases the demand for new and more relevant qualifications and the development of competence.

According to the United Nations Human Development Report for 2018, ranking 80th place it was included in the "High Human Development" group from the "Middle Human Development" group. Accelerating the pace of economic growth Azerbaijan has achieved great success in terms of poverty reduction and average lifetime growth. At the same time, the statistical analysis of leading international organizations shows the necessity of raising the level of international competitiveness indicators of Azerbaijani education, as well as the rating of higher education institutions located in the territory of the Republic of Azerbaijan.

Table 1. International competitiveness indicators of Azerbaijani education

HDI Rank		1995	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017
80	Education index	0.618	0.640	0.652	0.681	0.684	0.689	0.698	0.709	0.709	0.709	0.709
80	Government expenditure on education (% of GDP)	3.3	3.9	3.0	2.8	2.4	2.1	2.4	2.6	3.0	3.0	3.0

Source: World Bank (2018a). World Development Indicators database. Washington, DC. <http://data.worldbank.org>. Accessed 6 July 2018.

Steps are being taken to gradually increase the duration of education in many progressive countries. The total duration of study in Canada, France, the Netherlands, and the Czech Republic is 14 years, in Germany, Great Britain, Sweden, Australia, and New Zealand is 13 years, in the USA, Finland, South Korea, Poland and in some other countries is 12 years. The total education period of eleven years exists in a small number of countries. According to the Organization for Economic Co-operation and Development, a one-year increase in education duration in any country leads to 3-6% of GDP growth in the country.

Education, which carries theoretical character only and is not being enriched by practical knowledge and skills as a result of scientific-technological progress, innovation and modernization over the past 30-40 years, has lost its fundamental importance. In this regard, along with academic knowledge, the importance of practical competence, knowledge, and skills is also pulled out in the formation of educational content. Competence is the ability to effectively and efficiently apply gained knowledge and skills in practice. It ensures the knowledge and skills gained by the individual to result in a specific activity. Competence-based education provides more effective social and economic development.

Table 2. Education index of Azerbaijan Republic

Education index	2017
Expected years of schooling (years)	12.7
Education index	0.709
Expected years of schooling, female (years)	12.6
Expected years of schooling, male (years)	12.7
Government expenditure on education (% of GDP)	3.0
Gross enrolment ratio, pre-primary (% of preschool-age children)	23
Gross enrolment ratio, primary (% of primary school-age population)	106
Gross enrolment ratio, tertiary (% of tertiary school-age population)	27
Literacy rate, adult (% ages 15 and older)	99.8
Mean years of schooling (years)	10.7



Mean years of schooling, female (years)	10.5
Mean years of schooling, male (years)	11.0
Population with at least some secondary education (% ages 25 and older)	95.6
Population with at least some secondary education, female (% ages 25 and older)	93.8
Population with at least some secondary education, male (% ages 25 and older)	97.5
Primary school dropout rate (% of primary school cohort)	1.1
Primary school teachers trained to teach (%)	90
Proportion of schools with access to the Internet (%)	27
Survival rate to the last grade of lower secondary general education (%)	96

Source: HDRO calculations based on expected years of schooling and mean years of schooling from UNESCO Institute for Statistics (2018) and other sources. Accessed on 15 June 2018.

Globalization processes require the integration of education systems of different countries. A set of competencies recommended by the Council of Europe is assumed as a basis for targets. Given the growing student-teacher exchange, the Bologna process, aimed to unify education standards, is accelerating. The role of the private sector in higher education is gradually growing, and public funding is replaced by private sector funding. While public funding is 90 percent in Germany, Austria, and Italy, it is only 50-70 percent in the United States, Australia, Japan, and Canada.

Table 3. State budget allocated for science

	2000	2005	2010	2012	2013	2014	2015	2016	2017
The state budget allocated for science, mln manat	9,3	28,8	92,8	116,7	117,0	124,2	113,2	110,2	109,8
The proportion in Gross domestic product - percent	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2
The proportion in The state budget expenditures - percent	1,2	1,3	0,8	0,7	0,6	0,7	0,6	0,6	0,6

Source: Azerbaijan figures. Statistical summary. SSCAR. Baku, 2018

The amount of educational expenditures in the state budget stands at the very first places in Azerbaijan. Thus, 2 billion 1.5 million manats were allocated for educational expenses from the state budget of the 2018 year. This figure is 210.3 million manats or 11.7 percent more while comparing with that in 2017. It should be noted that 1 billion 830 million manats were allocated for education in 2016.

First of all, the identification of the specific personnel requirements of tax authorities for different areas and the implementation of the recruitment, transfer, and advancement of the personnel following these requirements are intended providing that the human resource management starts with the selection of personnel.

Table 4. Work, employment and vulnerability

Work, employment and vulnerability	2017
Employment to population ratio (% ages 15 and older)	62.8
Employment in agriculture (% of total employment)	37.4
Employment in services (% of total employment)	48.5
Labour force participation rate (% ages 15 and older)	66.1
Labour force participation rate (% ages 15 and older), female	62.9
Labour force participation rate (% ages 15 and older), male	69.5
Old-age pension recipients (% of statutory pension age population)	81.1
Unemployment, total (% of labour force)	5.0



Unemployment, youth (% ages 15–24)	13.7
Vulnerable employment (% of total employment)	56.1

Source: Human Development Indices and Indicators: 2018 Statistical Update

Results, Conclusions and Recommendations

The measures on increasing international exchanges upon the organization of effective employment, using labor resources in the country based on modern modeling principles, and creating all conditions for increasing economic activity are being expanded. An intensive phase of the development of entrepreneurship, in particular of small and medium-sized businesses, as well as economic incentives and promotions of individual employment activities, is being observed (Order of the President of the Republic of Azerbaijan 2011).

Realization of reforms in the field of education, implementation of works on raising the educational level, implementation of measures for the formation of the modern vocational education system, closer attention and investment into human factor development, and the processes of searching for adequate mechanisms of human capital development at the level of contemporary requirements are widely covered by organizational and economic mechanisms. Workplace and work conditions are the factors increasing the quality of human resources use, moreover, measures for their improvement are characterized as one of the more emphasized areas in modern practice. Also, the efficient use of human resources is now regarded as one of the key indicators of socio-economic effectiveness in society. However, there is still a need for several tasks to be implemented in the field of improving labor organization in permanent workplaces that are considered to be one of the main directions in the efficient use of human resources in our country. The researcher, S.Gurbanova notes that the experience of foreign countries and advanced enterprises of the country should be used in the evaluation of workplaces. Today, the issue of the organization of workplaces is not scientifically approached and is not economically, sociologically, psychophysiologically justified. In modern conditions, the effective organization of the workplace, the effectiveness of workflow and mobility, training, the evaluation of criteria for workplace designing and coordination, the development of contemporary methods, investigation of the measures on improving the workplaces, assurance of their application in labor and production processes have become very important problems and all of them should be solved on a large scale in the country (Qurbanova S.Ə., 2007; p-27). All of these problems and issues make actual the tasks of setting up more modern and up-to-date technology-based labor mechanisms, workplaces, and working conditions to increase the effectiveness of human resources use in the country. The most effective ways to increase the efficient use of human resources are to allocate the worker in the workplace following his/her activity and abilities, to optimize the human activity in terms of scientific-economic and practical realities, and to provide productive mechanisms, as well as to normalize their activities optimally. Factors that hinder the realization of human potential should be taken into account, barriers should be eliminated, and the condition enabling to unravel the individual's creative and skill elements in the operational processes should be established. The measures on developing and forecasting the scientifically-economically-driven models and methods should be undertaken in the improvement processes of the labor market. In this case, the justification and benchmarks of the measures taken should be coordinated with the most effective utilization of the human factor (Ганбаров Э.И., 2007; p-20). Also, improving the existing labor market structure in the country with the view to improve the efficiency of human resources use, providing new methodological approaches to the organization of the use of human resource potential, identifying and applying models based on world practice in this field could be useful (Tahirova G.İ., 2010; p-20). On the other hand, such the issues as the organization of human resources in decent workplaces in our country, high level of organization of activities in enterprises, firms and companies operating based on scientific, economic and world experience are waiting for their solution. It is no secret that sometimes there are more candidates for a decent workplace, that is, a vacancy, requiring definite training and intellect, in our country. Enabling the use of a few of these human resources having such qualities in optimal conditions does not allow the efficient utilization of the resource potential, the resource potential that can provide additional potential for the sustainable



development of the economy and society remains unused, etc. Despite the low level of unemployment in the country and the formation of highly qualified human resources, the ability to model human resource use based on high level, efficient methods and productive mechanisms are limited. A large number of highly qualified human resources, formed with the help of large companies and enterprises operating on large projects with the foreign capital, especially modern administrative managers that are of importance for our country, are not able to use their potential in a permanent and reliable way, with the help of large companies and companies operating on large projects. After the completion of large-scale projects carried out for several years, the activity of full-fledged, highly qualified human resources becomes limited, and they have to pursue a long-term job, often being forced to agree on less qualitative and underpaid works because of material need. All of these make it necessary to create decent and sustainable workplaces in our country, to develop business and entrepreneurship entities based on long-term business principles and apply relevant mechanisms. Soon we deem it to be appropriate to summarize the necessity, tasks, and ways of increasing the effectiveness of human resources use in our country as follows:

- criteria providing a systematic and comprehensive approach to "human resources" understanding in the country should be updated and the relevant legislative framework should be improved;
- existing labor laws and normative documents should be adequately upgraded and, if necessary, revised to effectively model the use of human resources in the modern era based on the concept of "human factor";
- establishing and developing a fair competitive environment in different sectors of the economy, entrepreneurship and business should be ensured, and some of the revenues from oil exports should be directed to the development of the human factor;
- considering the needs of the labor market, the regulatory mechanisms for the preparation of highly qualified human resources and their effective use should be applied;
- for the quality improvement of human resources and increase of their economic activity, the development and implementation of a balanced state economic policy, including the development and implementation of a new model of effective use of human resource and effective employment policy should be provided;
- assimilation of systemized knowledge, skills and habits, and additional education should be provided, learners should be trained for social life and effective labor activity;
- the human capital that is necessary for modernization of the country should be developed and thus the international competitiveness of the Republic of Azerbaijan should be enhanced and so on.

Rapid progress in the world processes shows that new information sources and technologies are emerging, and trends are constantly changing. This creates the need for employees to keep up with changes and innovations and constantly improve their knowledge and skills. Therefore, our expectation is the continuous increase in the qualification of our employees. The process of increasing the qualification should gradually pass into voluntary form; employees should be interested in self-development. For this, their motivation should be strengthened and new incentive mechanisms should be developed. The works implemented in the sphere of human resources management should be organized as result-oriented, and resources expended for the development of human resources should be adequate to the outcomes we have achieved. Therefore, it is essential to ensure a high return on "investment" in human resources development.

References

- Adilova N.Q. (2014). *Naxçıvan regionunun əmək bazarı və əhali məşğulluğunun yüksəldilməsi istiqamətləri (Aqrar sahənin materiallarına əsasən). İ.ü.f.d. dissertasiyasının Avtoreferatı. Naxçıvan.*
- Allahverdiyev H.B., Qafarov K.S., Əhmədov Ə.M. (2012). *Milli iqtisadiyyatın dövlət tənzimlənməsi. Bakı: "İqtisad Universiteti" Nəşriyyatı.*
- Azerbaijan figures. Statistical summary. (2015). SSCAR. Baku.



- Əhmədova E.K. (2011). *Material və əmək resurslarının uçotu və təhlilinin təkmilləşdirilməsi. İ.ü.f.d. dissertasiyasının Avtoreferatı. Bakı.*
- Əliyev T.Q., Əliyeva Ş.T., Əliyev T.R.. (2012). *İnsan resurslarının idarə edilməsi. ADNA. Bakı.*
- HDRO calculations based on expected years of schooling and mean years of schooling from UNESCO Institute for Statistics (2018) and other sources. Accessed on 15 June 2018.
- Human Development Indices and Indicators: 2018 Statistical Update.
- İbrahimov E.R. (2011). *Aqrar sahibkarlığın inkişafının iqtisadi problemləri. İ.ü.e.d. dissertasiyasının Avtoreferatı. Gəncə.*
- İsmayılzadə Ə.A. (2012). *İnsan resurslarının idarə edilməsi və sosial inkişafı (monoqrafiya). Azərbaycan Dövlət İqtisad Universiteti. - Bakı: Gənclik.*
- Məciddbəyli R.X. (2013). *İnsan resurslarının idarə edilməsi: insan resurslarının idarə edilməsinin meydana gəlməsi, anlayışı və tarixi inkişaf prosesi. Bakı: Bilik.*
- Musayeva C.Q. (2013). *Neft gəlirlərinin səmərəli istifadə edilməsinin modelləşdirilməsi. İ.ü.f.d. dissertasiyasının Avtoreferatı. BDU, Bakı.*
- Mustafayev A.X. (2012). *Regionda əmək potensialının formalaşması və istifadəsi (Lənkəran iqtisadi rayonunun təmsilində). İ.ü.f.d. dissertasiyasının Avtoreferatı. Bakı.*
- Order of the President of the Republic of Azerbaijan (November 15, 2011). *State Program on Implementation of the Employment Strategy of the Republic of Azerbaijan for 2011-2015.*
- Order of the President of the Republic of Azerbaijan (October 24, 2013). *State Strategy for the Development of Education in the Republic of Azerbaijan.*
- Orucov A.İ. (2013). *Azərbaycan Respublikasında sahibkarlığın inkişafının və onun səmərəliliyinin artırılmasının təşkili-iqtisadi problemləri. İ.ü.e.d. dissertasiyasının Avtoreferatı. Gəncə.*
- Quliyev T.Ə. (2001). *Menecmentin (idarəetmənin) əsasları. Bakı.*
- Quliyev T.Ə. (2013). *İnsan resursların idarə edilməsi. Bakı.*
- Qurbanova S.Ə. (2007). *İş yerlərində əməyin təşkilinin təkmilləşdirilməsi və onun sosial-iqtisadi səmərəsi. İ.ü.f.d. dissertasiyanın Avtoreferatı. Bakı.*
- Tahirova G.İ. (2010). *Azərbaycanın əmək bazarının modelləşdirilməsi. İ.ü.f.d. dissertasiyasının Avtoreferatı. BDU, Bakı.*
- World Bank (2018a). *World Development Indicators database. Washington, DC. <http://data.worldbank.org>. Accessed 6 July 2018.*
- Zeynalova Z. (2017) *Sosyal politika və gelir dağılımının sosial politikaya izdüşümü. Bakü*
- Ганбаров Э.И. (2007). *Модели и методы прогнозирования некоторых аспектов рынка труда (на примере Азербайджана). Автореферат. дисс. канд. экон. наук. Баку.*
- Мурадов Ш.М., Гёзалова А.К., Эфендиев Р.Дж. (2007). *Глобализация, демографическое развитие и трудовая активность населения в Азербайджане. Баку. «Элм».*



Lifelong Education in Business: Role of Simulation Games in the Teaching Process

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Abstract

The significance of business simulation games (BSG) rapidly increases. And this is quite understandable. Because simulation games are based on the model playback mode realistic processes, events, locations or situations. The necessity of BSG in the educational process can be explained on the one hand by the growing demand of the labor market in specialists with practical skills, and on the other hand by growing needs of students to be able to navigate themselves through unfamiliar situations and find their decision in a proper and responsible way, instead of blind copying teachers instructions. BSG offers a broad scope of the forms of competencies students such as an ability to work in group teamwork, find a common language and understand that is globally relevant and informed while providing space to adapt the framework to local contexts. Business simulation games train students create risk-free spaces where everyone can work out specific skills and feel the effects of own decision-making, requiring a certain level of risk. Entrepreneurial activity is pivotal to the continued dynamism of the private sector, as the generation of new businesses fosters competition and economic growth. This is particularly relevant for Azerbaijan, whose entrepreneurship and business innovation levels are low, and it faces a central challenge to create conditions that will facilitate growth in nonoil tradable sectors. Therefore the proposed paper has three objectives: development of teaching resources and tools for delivery of entrepreneurship education. BSG will facilitate strategic problem-solving in life-like simulated business environments and it will be attached to the existing UNEC incubator. BSG should become an integral part of the educational process. Simulation games allow students to practice and improve their entrepreneurial skills in a 'virtual' environment by making informed decisions and applying the knowledge and skills acquired in the class. According to OECD LEARNING COMPASS 2030, the educational process should be focused on evolving learning framework that sets out an aspirational vision for the future of education. The wider goals of education open new horizons of orientation towards the tomorrow we want to see. Thinking globally acting locally we will create collective well-being for every society's member.

Keywords: Simulation games, Entrepreneurial activity, Virtual environment

Introduction

In 1991 after the collapse of the USSR Azerbaijan restored state independence and became the country in transition that has inherited an inefficiently functioning system of a planned economy. Inherited Soviet high education service also fell into disrepair. Even though Soviet education had positive sides, such as free education, the strong reputation of exact sciences, high-quality technical education, motivating factor of enlightening, this system also had its flaws. The most and the worse one was the fact that the key place in the higher education system was occupied by theoretical knowledge instead of a practical one. Besides, there was a very low demand for learning foreign languages, software development and programming languages, which became a barrier to integration into the global education system. With the collapse of the planned economy, the country began a transitional crisis, which of course has also affected the activities of higher education institutions.

New reforms in the education system of Azerbaijan began since the early 1990s. However, there were difficulties associated with the lack of a legal framework for education. There was no law on education, baccalaureate, and magistracy, the credit system was also absent. Digital teaching staff skills were extremely poorly developed. Even though Internet media appeared in Azerbaijan in 1996, there was no digitalization policy in the country, teachers did not know even how to use a computer. It took a long time and was quite difficult to



penetrate people's mind, explain them the role and essence of e-learning and digital possibilities on the way of quick and easy search of needed materials.

In the context of globalization, one of the main tasks of the educational system in Azerbaijan was to integrate into the European educational system, along with the creation of a competitive educational system capable to meet the needs of the global labor market. This task became even more urgent when in 2001 Azerbaijan became a member of the Council of Europe. The integration of the national education system and implementation of European education standards have become the main and priority goal of the newly obtained a sovereignty Azerbaijan.

To achieve this goal, it was necessary to create national educational standards, determine the possibilities and advantages of the Bologna credit system and its appliance in Azerbaijan.

In 1999, after the approval of the main educational reforms, comprehensive changes began in the entire educational system of Azerbaijan. In 2005, an official document on the inclusion of Azerbaijan into the Bologna system was signed. The theoretical and legal basis of the process was set out in the document "The Structure of Minimum State Requirements for the Level and Content of Bachelor's Degree adopted in 2006". By joining the Bologna system, Azerbaijan automatically assumed obligations to further improvement of education quality, as well as to adapt its educational system to the advanced educational systems of European countries and accepted several other commitments to deal with. The country for sure faced a need for fundamental reforms in higher education. Structural changes were made to the higher education system, new specialties and subjects in computer science were added to the curricula. However, the transition to a new system did not solve all the problems associated with higher education in Azerbaijan.

The usage problems of digital technology still exist in the education system. Since the ICT industry is constantly developing, computer knowledge must constantly be improved too. Azerbaijan State University of Economics (UNEC) like other universities of higher education often have a lack of advanced experience, qualified specialists in the field of digital technology.

Creating a digital environment at UNEC require an appropriate digital concept, the training of specialists, who will use modern digital technologies and then provide training for trainers, transfer new knowledge students and thus develop a great value for a new generation.

Effective education at business schools should be oriented on designing of simulation games that will be very useful and requested from the labor market. To be able to meet the main requirements of the business world each institution has to look for suitable methods to providing not only theoretical basis but also mainly practical skills and should guide students to creative, logical and innovative thinking. Designed for a business student's Business simulation games (BSG) is an effective educational tool today because games allow you to simulate various economic occasions and conditions in the market and motivate students to personal decision-making.

BSG are active didactic tools used in teaching Economics, Marketing, Management, HR, Procurement and other disciplines and considered learning methods designed on empirical learning. They encourage students to obtain new knowledge and skills through experience. Playing on BSG, students may check and forecast the short-and long-term impact of economic indicators on the business, and then check and correct their decisions if needed.

This paper aims to emphasize the importance and efficiency of business games in the modern learning process. The BSG invites students to be innovators even virtually because they will see opportunities for local



developments, use engineering achievements to design new products/services. Student investigations such as surveys, different forms of collaboration, interviews can be very interesting for local entrepreneurs.

Method

Experiential and Action Learning Pedagogies, Case Method Teaching, Design-thinking, problem-based learning.

1. Theoretical view

The BSG have been widely used in most universities since the second half of the 20th century. The use of BSG at business schools as a learning tool becomes very popular nowadays. According to Faria about 95% of the all business schools united within the framework of the American Association to Advance Collegiate Schools of Business known as AACSB International included simulation games in their curriculums. The leading universities of the USA, Canada, France, Great Britain, Australia, New Zealand, Turkey, the United Arab Emirates, China, Singapore, Taiwan, South Korea, India, and Lebanon are members of this association. Is this the secret of the successful adaptation of companies in these countries to the changing global business environment? As we can see, none of the CIS countries are members of this association. Is this the reason for lagging behind the trends of the world market?

In most cases, new businesses fail. But most of those failures are preventable. And we consider that learning students by playing simulation games in a virtual competitive environment can orient and focus them to think comprehensively and practically, weigh the pros and cons before making a decision.

Development of ICT and computer sciences has created a wide platform for holding practical lessons using digital business games. Simulation games can incorporate various management-related disciplines such as marketing, accounting, HR, corporate social responsibility, procurement, entrepreneurship, logistics, and others. Thinking and acting entrepreneurially can and should be taught in classrooms.

1.2. Learning process

The simulation is digitally based and doesn't need to install a special application and can be generally recognized from the existing computer that has access to the Internet. The simulation base encourages team participants to work collectively. Each member of the group is given an account that allows them to make decisions create various situations on their own. To be able to make the right decision all results should be combined with findings of other teams. The web-designed platform should obligatory include web-forum to communicate with every team in the on-line market. Business simulation games train students and managers create risk-free spaces where everyone can work out specific skills and feel the effects of own decision-making, requiring a certain level of risk.

The main characteristics we can give as followings:

- Reality
- Risk control
- Skills training (practice new behavior)
- Feeling and understanding the consequences of their own decisions.

We can imagine the learning process as given on the fig. 1.

Students will be given a basic set of learning materials and tasks and a fixed time to create and design their decisions. To be able to manage virtually a fully integrated company and start a business student will be given the conditional seed capital. The whole class will be divided into teams and every team will have a chance to earn money in a virtual environment. In the process of BSG, they can hire and dismiss from work employees, open affiliated offices and then close them if it is necessary.

For a brief demo of the strategy and business policy simulation, please go to <https://www.marketplace-simulation.com/strategy-business-policy-demo>



A brief demo of the BSG can be observed at the <https://www.marketplace-simulation.com/strategy-business-policy-demo>
A teacher of strategic management has to use a combination of methods like lectures, videos and case studies to impart learning. Learning through case studies is better than listening to lectures or videos. The role of the decision-makers allows students to think pragmatically and practically and this is undoubtedly the most effective tool for learning. The scope of interesting issues may touch such questions as what strategies can be used to occupy market niches? what changed? what was lost? And etc.

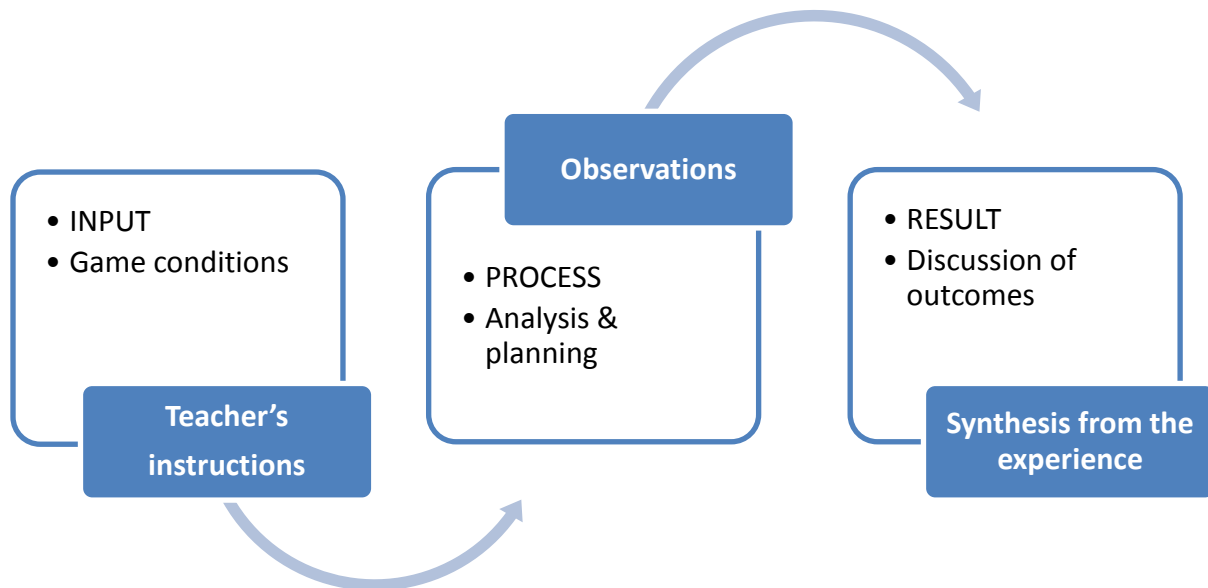


Figure 1. The main stages of the learning process through BSG (compiled by the author)

Entrepreneurship Educators have to be equipped with approved and tested concepts and technical tools to teach experientially. Experiential and Action Learning Pedagogies, Case Method Teaching, Managing Classroom Challenges, Curriculum and Course Design, Use of Technology in the Classroom should be provided too.

Anyone who wants to be educated based on the action will receive the benefits of entrepreneurial education. No matter what discipline you're from, if you're an academic or an entrepreneur who teaches or has a desire to teach entrepreneurship, you'll leave the program prepared to pass along the benefits of entrepreneurial education. Participants come from all around the world, allowing for a diverse group of peers in the program.

To be able to provide continuous learning process on the base of simulation games universities should recruit and train mentors and coaches. Findings of this study may help teachers in the designing of curriculum that will include BSG and a mechanism of their providing.

2. Motivation for the BSG

To be able to counter the competitive labor market, higher educational institutions should include into the teaching process BSG. Students after graduation not always enough to ensure a job. Every employee requires an experience from a young candidate.

It is obvious that getting an experience at universities not an easy task because it is not always possible to study full-time, some of students have work on the side, not all universities can provide and know how to play BSG. According to Crookall (2010a) we would not fly with a pilot who was not thoroughly trained on the simulator before he or she is allowed fly on airplanes.



To be able to provide continuous learning process on the base of simulation games universities should recruit and train mentors and coaches. Findings of this study may help teachers in the designing of curriculum that will include business simulation games and a mechanism of their providing.

Aram and Noble (1999) notice that “business schools are not adequately preparing students to understand and cope with the levels of ambiguity and uncertainty they will inevitably face when they take up positions in organizations. They [the authors] believe that this is because the models of teaching and learning that dominate academic practice are those that are appropriate to the stable, predictable aspects of organizational life and do not include the paradoxical and unpredictable characteristics of the professional business environment” (Aram, E. and Noble, D., 1999, as cited in Lainema, 2000, p. 1 of 14).

Copenhagen Business School (CBS) has successful practice, namely introduced BSG into the teaching process on bachelor’s and master’s degrees. (Löfvall, S., Email communication, June 23, 2011). Despite advantages of BSG, CBS first evaluated its suitability through a successful pre-testing of HotelSim in fall 2010. Test gave a positive results. Each university can follow this practice and increase the number of listeners with regard BSG. Students can implement their capstone projects combining theoretical knowledge with simulation games, provide research on a sample group from a higher educational setting and etc.

The important task for the Azerbaijan economy is to promote growth in the nonoil tradable sectors. Azerbaijan’s economy has developed around its strong natural resources base, which accounts for over half of gross domestic product (GDP) (figure 2.1) and 90 percent of exports. Although Azerbaijan has experienced rapid oil-driven growth over the last decade, this has not spilled over systematically into other areas of the private sector. Nonoil growth has been dominated by nontradable sectors led by construction, which accounts for about 60 percent of nontradables

Students are provided with the seed capital to start up their business. They will be a totally integrated company that does it all from marketing to production to human resource management. They will have limited financial resources and complete accounting responsibility. They will build a factory, open sales offices and launch a website, design brands and advertising campaigns. They will hire salespeople and decide on the compensation packages, deal with demand projections and a simple production scheduling process. After several quarters in business, students’ firms will be able to receive additional funding from the venture capitalists by making a presentation of their business plan and negotiating with the interested venture capitalists. They will invest this money in new R&D, bring out improved products, and expand their distribution and production capacity in order to maximize their performance

Conclusion

The important task for the Azerbaijan economy is to promote growth in the nonoil tradable sectors. The number of acting small and medium entrepreneurship subjects will grow if they play simulation games without fear of losing their capital. BSG may become a very important tool and make a significant impact for increasing the employment in the labour market and also to the development of SMEs in Azerbaijan. According to Internet World Stats organization the number of the country’s Internet users exceeds 7,531 million people or 75,5 % of the total population. Thus we can say that e-educated students will contribute to the the national wealth of the country.

Recommendations

The main recommendations are as follows:



1. Inclusion of BSG into the curricula in the sphere of high education is highly recommended. For this reason, the relevant experience of the world leading universities can foster UNEC and other institutions from Azerbaijan to integrate into the modern education system.
2. BSG will push the game participants to be capable in making own decisions in the future in real conditions, develop an ability to make quick and efficient decisions, track the dynamics of the current and future business trends and predict expected final outputs.
3. Learning by playing, imitation of the real conditions will make students more savvy and in demand in the modern labor market.
4. Using BSG will bring benefits not only the students, but also for teachers of the business schools. As a moderator teachers have the leading role that means that they define the main conditions of the game. Teaching based on gaining empirical experiences through BSG makes the learning process quite interesting and entertaining. Students see a teacher as a trainer, who is ready to help them to reach their goals.
5. The demand for universities that will conduct business simulations will be much higher among applicants, and this is a guarantee of a high rating of the University among educational institutions.
6. Summing up I would like to recall the words of Confucius – “I hear and I forget, I see and I remember, I do and I understand”

References

- Anderson, P., & Lawton, L. (2009). Business simulations and cognitive learning: Developments, desires, and future directions. *Simulation & Gaming*, 40(2), 193-216.
- Aram, E., & Noble, D. (1999). Educating prospective managers in the complexity of organizational life. *Management Learning*, 30(3), p. 1 of 14
- Brown, J. S., Collins, A., & Duguid, S. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32–42
- Faria, A. J. (1998). Business simulation games: current usage levels-an update. *Simulation & Gaming*, 29(2), 295-308.
- Harley, S. (1993). Situated learning and classroom instruction. *Educational Technology*, 33(3), 46-51.
- Lainema, T., Makkonen, P., Applying constructivist approach to educational business games: Case REALGAME, DOI: 10.1177/1046878102250601, p. 132
- Löfvall, S., Email communication, June 23, 2011)
- McLellan, H. (1994). Situated learning: Continuing the conversation. *Educational Technology*, 34(10), 7-8.
- Reiser, B. J. (2004). Scaffolding complex learning: The mechanisms of structuring and problematizing student work. *The Journal of the Learning Sciences*, 13(3), 273–304.
- Sorensen, M., (2012), Learning with simulation games, Copenhagen Business School p.8,
- Vij S, & Sharma R. (2018), Experiential Learning through Business Simulation Game in Strategic Management, 6th 20th Annual Convention of Strategic Management Forum, “Strategy, Innovation and Entrepreneurship Curriculum in the Era of Disruption”, 25-27 December 2018, Indian Institute of Management Tiruchirapalli (IIM Trichy) p 3-5
- Walters, B. A., Coalter, T. M., & Rasheed, A. M. (1997). Simulation games in business policy courses: Is there value for students? *Journal of Education for Business*, 72(3), 170-174.
- Avramenko, A. (2012). Enhancing students' employability through business simulation. *Education+ Training*, 54(5), 355- 367



OECD Learning Compass 2030, http://www.oecd.org/education/2030-project/teaching-and-learning/learning/learning-compass-2030/OECD_Learning_Compass_2030_concept_note.pdf
<https://www.internetworldstats.com>
<https://www.marketplace-simulation.com/strategy-business-policy-demo>



Foreign Students Growth Trends in Georgia

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Abstract

"Educational Migration" is quite common in Georgia, as it is one of the fastest growing migration. Therefore, studying this type of migration, making relevant conclusions and developing recommendations is more important in the modern stage. Therefore, quantitative analysis of educational migration is the main goal of the article. Hence, quantitative analysis of educational migration is the main goal of the article. The average cost of a foreign student is 7,733 dollars (the cost of living, leisure, travel and other expenses), or 195 million GEL per year (USD -2.7 GEL), which is 0.6% of GDP and 6% of service exports. By According to the forecast, the number of students in 2020 will be 20 thousand and the income will be 0.5 million GEL. Economic benefits will be further increased by improving teaching quality and service. 2020 the number of students will be 20 thousand and the revenues will be 0,5 million GEL. Economic benefits will be further increased by improving teaching quality and service.

Keywords: Migration, Students, Education, International mobile, Statistics.

Introduction

Today the globalization has become a crucial issue in the everyday political, economic or social and cultural life, (Quliyev, A., Abesadze, N., Abesadze, O. Amanova L., 2019, pp.51) especially when the foreign interests of Georgia include sharing with the advanced European values and experiences and joining the European Union (Abresadze, 2014). On this background, the education system in many countries around the world does not respond rapidly to the rapid change of knowledge and technology that forces young people to take abroad. In scientific literature, the term "educational migration" is quite often found today, as it is one of the fastest growing migrations. Therefore, its study and quantitative analysis are, of course, more important, in the context of relevant information provision. Within the background of the globalization processes taking place in the world economy, one of the principal preconditions for the development of Georgian economy is the availability of highquality statistical data depicting the integration processes. This, surely, means the perfection of the activity of the National Statistics Office and its maximum harmonization to the international standards (Abesadze, N.2015pp.333). This puts forth new challenges to the National Statistics Office.



The main reason for the emergence of educational migration is the adoption of adequate education in the modern stage of economic development and, consequently, the competition on the labor market. Educational migration is an exemplar of migration, the distinguishing feature of which is the voluntary, short-term, predetermined time and life of the age group defined by abroad. Today, a very large number of young people choose education outside their country. According to the growing demand for education abroad, "Mobility students" start searching for new directions to get higher education outside the boundaries of the country. With the increase of the number of people abroad year by year, universities all over the world are struggling to mobilize the best and most talented people. But it also increases the growing competition between students of developing countries in terms of learning more accessible and appropriate learning programs. Increase in the segment of international mobility students increases the number of applications applicants and students enrollment in the world universities.

Today it is possible to prove that the World Education Service market is established and the largest volume of services in this regard is conducted by higher education organizations. That is why they promote the most important flows of educational migration. Many state and educational institutions are trying to attract foreign students, advertise their own programs, create certain conditions for learning and organize training exhibitions in different parts of the world. Competition is becoming increasingly aggressive in this direction and plays an important role in this fight. But this is not the only choice for young people. Based on this literature the main goal of the work is to reveal the main trading trends between Georgia and Azerbaijan.

Method

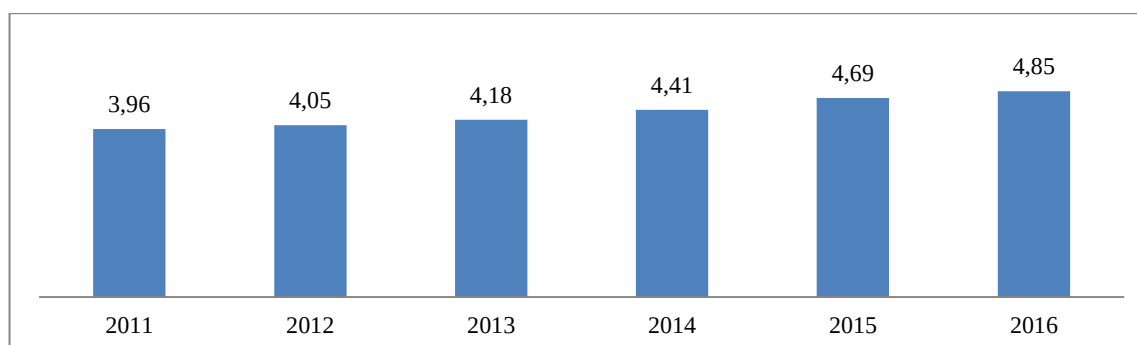
In the article is applied qualitative and quantitative methods of data analysis widely accepted in economic science (Gelashvili, S., Abesadze, N., Abesadze O., 2015:37): the methods of statistical observation, grouping and analysis were used in the research process. The graphical expression method is widely used. In addition, the methods of induction, deduction, analysis and synthesis, selective observation were used in the research process. Comparative indicators of the structure, dynamics, comparison were calculated.

Findings

As it is known, educational migration is the movement of people to get education outside their country. This kind of migration allows young people to discover new opportunities, the latest technologies, world culture, quality education, and international labor markets. And this is a very important thing for a young man who chooses to choose his own way of life and whose lives are starting now. Foreign students - these are temporary migrants who take abroad, the predominant, medium, and others. Kind of education. According to the prevalent opinion, people prefer education abroad because they do not allow their environment to get the desired education. They choose education in countries where their preferred educational establishment is.

According to UNESCO's Institute of Statistics,(Global migration indicators. 2018) the number of international mobile students in the world has increased by almost 70% over the last 10 years and exceeded 4.85 million by 2016 (see Fig. 1). Along with stabilizing the number of foreign students, internationalization of education plays a crucial role in modern education systems.

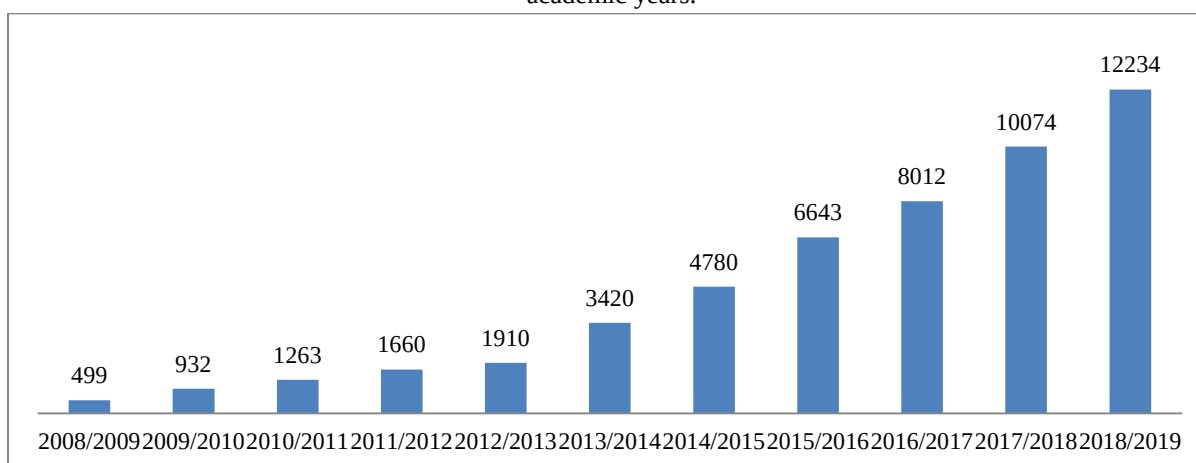
Chart 1. Number of foreign students (mln man) 2011-2016



Source: Data of UNESCO

In Georgia, according to the level of education in 2018, the number of foreign students in the last years has increased significantly in the last years and it is ranked 26th among 189 countries worldwide. (United Nations Development Programme: Education Index 2018 (see Figure 2).

Chart 2. Number of foreign students in higher education institutions of Georgia in 2008 / 2009-2018 / 2019 academic years.



Source: National Statistics Office of Georgia

As shown in the graphic image, if Georgia hosted 499 foreign students in the 2008/2009 academic year, more than 12 thousand students study in the country by 2018/2019 academic year and 21%, And increased 23.5 times in comparison with the 2008/2009 school year. Over the years their number increased by 1173 students.

90% of foreign students in Georgia are citizens of Azerbaijan, India, Iraq, Nigeria, Turkey and Russia. In addition, the number of students in Azerbaijan, Iraq, India and Nigeria has increased significantly in recent years, while the number of Turkish and Russian citizens is relatively stable.

Table 1. Foreign students in Georgia according to the countries of 2008/2009 -2018/2019 academic years.

	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019
Azerbaijan	86	229	135	280	583	860	1372	2388	2650	2702	2124



Turkey	106	140	227	330	384	373	492	484	360	224	229
India	129	248	409	585	825	911	1104	1435	2507	3834	5830
Iraq	8	3	1	1	65	304	657	793	974	821	759
Nigeria	..	..	...	49	486	305	478	587	441	439	366
Russia	84	77	232	124	191	167	157	253	249	257	306

Source: National Statistics Office of Georgia

According to Geostat data, 10074 foreign students were studying in Georgia in 2017/2018 academic year. Of them, 3 650 state and 6 413 private schools are studying. The largest number of foreign students - 3 834 students from India, 2 702 from Azerbaijan and 821 students from Iraq.

As for the 2018-2019 academic year, 12234 foreign students study in Georgia and 5830 of them are still from India and the growth rate is 52%. While the number of students dropped from Iraq and Azerbaijan to 8% and 21% respectively. It is interesting to note that in 2011/2012, 49 students from Nigeria studied in Georgia, the number of which is growing annually and increased by 6.5 times (366 students) for 2018/2019 academic years. The majority of foreign students have been selected by Tbilisi State Medical University for several years already. However, in recent years the number of foreign students has increased significantly in the University of Georgia and Caucasus International University. Most of them think that learning in Georgia is because of a safe country and a living in comparison to other countries.

According to the Ministry of Education and Science of Georgia, the absolute majority of foreign students (95%) in Tbilisi study in Tbilisi, 2.2% in Kutaisi and 1.8% in Batumi. Medical education, which is most expensive, is particularly popular among foreign students, half of which takes education in medicine, health care, pharmaceuticals or dentistry, almost a quarter studying at the faculty of business, economics or law. European students are mainly interested in studying Georgian art and history of medieval.

The 2017 report of the Government Commission on Migration states that one foreign student spends about \$ 7,733 (tuition fees, added life, vacation, travel and other expenses), or 195 million lari per year (published in the study, in November 2017, the dollar rate was 2.7 GEL) Which is 0.6% of gross domestic product of Georgia and exports of services 6%. (A short form of migration profile for foreign students in Georgia".)

As noted above, the number of those willing to study in Georgia increases from year to year, meaning that if by 2020, the number of foreign students may reach 20,000, which means it will automatically increase the country's budget revenue. If we define the same rate, it will be half a million. Based on simple calculations, it may be possible to cover the expenses incurred by foreign students in order to study in Georgia by foreign students.

It is an interesting study conducted by the Tbilisi State University International School of Economics (ISET) Migration State Secretariat ordered and the European Union and the Migration Policy Center for International Development (ICMPD) managed the project - "Migration Management in Georgia" (ENIGMMA), the aim of the economy on foreign Students were found to influence rate. According to the research, Georgia plays a key role in attracting foreign students in Georgia as a reputation for a safe country and a low cost of learning, while choosing a particular university, access to English language courses, qualification of academic personnel and paying attention to teaching fees. Most of the interviewed students (89%) state that they are financially dependent on their families remaining in their homeland. Azerbaijan's students have the smallest financing, while the largest - Iraq (yearly, 2157 and 9985 dollars). The largest share of student expenses is the study fee (38.88% of all expenses), on average it is 4777 USD according to all university. (ISET Online Survey, 2016)



In addition to economic benefits, internationalization of education increases the awareness of the country, and even after the students return to their countries, they will still continue to have a relationship with the state where education is taken. At the same time, some advertisements will be made on the continuation of studies in Georgia. It is noteworthy that a vast majority of foreign students are planning to get education in Georgia and leave the country, which will have their future impact on the labor market largely negligible. 65% of foreign students plan to continue their studies after completing their studies, including 8% in Georgia. Less than 30% thinks about employment after learning, including only 5% going job search in Georgia. (ISET Online Survey, 2016). The latter indicates that the influence of foreign students is largely short of the Georgian economy and is limited to what the students are studying in Georgia, which certainly reduces the potential long-term effects of foreign students on the country's economy. In order to stay in Georgia or continue to work, what the data indicates will further increase the economic benefits received by foreign students. This will facilitate improvement of teaching quality and service in universities. It should change the legislative framework, increase the autonomy of universities and increase the internationalization of academic programs, and create more foreign language programs. Besides, it is very important to support the state, even in terms of granting student visas. Without a united approach of the state, environmental conditions and infrastructure that will make international students come and make learning easier and more attractive. Strategy and Action Plan will also be set up in order to increase the number of international students, as well as the platform Study in Georgia, which helps international students and universities to connect with each other.

Results, Conclusions and Recommendations

- Educational migration is important for Georgia.
- Number of foreign students is systematically growing
- 90% of foreign students in Georgia are citizens of Azerbaijan, India, Iraq, Nigeria, Turkey and Russia. In addition, the number of students in Azerbaijan, Iraq, India and Nigeria has increased significantly in recent years, while the number of Turkish and Russian citizens is relatively stable.
- The absolute majority of foreign students (95%) in Tbilisi study in Tbilisi, 2.2% in Kutaisi and 1.8% in Batumi. Medical education, which is most expensive, is particularly popular among foreign students, half of which takes education in medicine, health care, pharmaceuticals or dentistry, almost a quarter studying at the faculty of business, economics or law. European students are mainly interested in studying Georgian art and history of medieval and s.o.

References

- Abesadze, N. (2015) The main trends of integration of Georgia into the world economic system. Journal Procedia-Social and behavioral sciences. Volume 156. Elsevier pages 166-169
- Abesadze, N. (2015) Statistical analysis of the economic integration of Georgia with the European Union and prospects for development. Journal. Economics and Management p.333-337
- Gelashvili, S., Abesadze, N., Abesadze O., (2015) Expected Trends in Trade Relations Between Georgia and the European Union. Journal Folia Pomeranae Universitatis Technologiae Stetinensis. Oeconomica Issue 81, pp 37-46
- Global migration indicators pages 9-15.
Retrieved from https://publications.iom.int/system/files/pdf/global_migration_indicators_2018.pdf
- Global Migration Data Analysis Centre (GMDAC) International Organization for Migration (2018)
Retrieved from https://publications.iom.int/system/files/pdf/global_migration_indicators_2018.pdf
- Quliyev, A., Abesadze, N., Abesadze, O. Amanova L. (2019), Statistical aspects of Trade Relations between Azerbaijan and Georgia Economic and Social Development: Book of Proceedings. pp 51-56.



United Nations Development Programme: Education Index 2018. Retrieved from

<https://gtmarket.ru/ratings/education-index/education-index-info>

"Migration profile of short format foreign students in Georgia" (2017).

Retrieved from http://migration.commission.ge/files/migraciis_profili_a5_geo.pdf

ISSET Online Survey, 2016



The Role of International Standards for Risk Management to Ensure High quality at Enterprises

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Abstract

It is important that the products produced in modern times meet the quality and safety requirements. The implementation of these requirements is possible by taking precautionary measures into consideration and risk management that may appear at any point during the production process. Disregarding risks in any activity significantly reduces the competitiveness of the enterprise and the quality of the process and product. In world practice, many advanced companies have achieved profit and high quality products through a systematic implementation of the risk management process and then smaller companies gradually began to take advantage of their experience. The world's two most widely used International risk management standards are HACCP system and ISO 31000. High quality and competitiveness of the product depends on implementing requirements of these standards. Establishing a risk management system in enterprise and identifying potential risks minimizes losses, increasing profits and achieving high quality products with lower cost value.

Keywords: Risk management, International Standards, Requirements, Quality

Introduction

As the requirements for products of today's production are very high, it is also crucial that they meet both quality and safety requirements. The meeting of these requirements is possible by managing of risks that arise before the manufacturing process and that occur during the production process. To date, various international organizations from several leading countries have developed a number of international standard projects that allow the to make significant progress in assessing the potential risks in production, economy, construction, medicine and many other areas, by minimizing or eliminating their potential negative impacts. The risk management process and the broad disclosure of this approach are included in the requirements of these standards.

The process of Risk management is a comprehensive, extensive and important process. The implementation of this process should comply with the requirements of relevant regulatory and technical documents, each stage must be regularly documented, based on a predetermined plan, and all changes should be noted. Thus, these notes prevent the loss of time during the relevant assessments. Numerous standard projects, guidelines and regulatory and technical documents covering the risk management process have been implemented in various parts of the world so far. It may be an example of AS / NZS 4360: 2004 – in Australia and New Zealand, CSA Q 850: 1997 - in Canada, JIS Q 2001: 2001 - in Japan [1], [4], [12] . Later, these standards have been summarized and a single standard was prepared from those standards and applied in the food industry. It was HACCP system principles and nowadays these principles and ISO 31000 are the most widely used standards in risks management field.

These standards envisage taking appropriate measures to identify, assess, and eliminate the existing risks. Standard requirements also include early warning of potential risks and preparation of a precautionary plan in case of appearing new risks.

To ensure the effectiveness of the risk management process in any field of action, it is necessary to pay attention to the following four questions of general character:



1. *What can happen?* Specific attention is paid to the detection of potential risk when examining the answer to the question.
2. *What is so important?* (evaluation). Depending on the outcome of the first question, management should make assessments and make decisions about whether the various outcomes are desirable or unwelcome.
3. *What can be done?* (action). As a next step, management should prepare a plan for managing potential risk in one or another way, minimizing risk, and avoiding risk. In some cases, it is also important to have a reserve plan that can be applied during an unexpected event.
4. *What happened?* (analysis). At this stage, the management should determine whether the expected effects have been achieved by analyzing the outcomes of the work already done and whether there is a need for additional changes. All of these should be accompanied by an effective exchange of information with those who may be in danger of risk and may be able to assist in the fight against risks.

The application of the risk management system in enterprises and organizations and registration and maintenance of records of this process has the following advantages:

- arranging assessment of risk-related approaches within the organization;
- revealing the strengths and weaknesses of the organization's risk management system in terms of standards;
- developing key documents for the corporate risk management system;
- preparation for risk management process and reducing costs for the process;
- making appropriate changes to the organizational structure;
- avoid the negative consequences of possible risks, fully or partially.

Overall, risk descriptions of general risk indicators in risk management system are given in Table 1.

Table 1. Description of the risk management in the risk management system.

1.	Risk name	Risk determination
2.	Risk area	Description of events, dimensions, types, quantities and impact areas
3.	Type of risk	Strategic, operational, financial information, compliance with legislation
4.	Interested parties	Interesting parties and their expectations
5.	The amount of risk	Importance, probability, results
6.	Suitability of the risk	Possible losses and their material costs
7.	Risk management and control mechanisms	Value of risk
8.	Opportunities for improvement	The risk management objectives and the desired level of performance of the assigned tasks at any level
9.	Strategic and management changes	Existing methods / experience of risk management

Regardless of the area of activity, production volume and size, enterprises and organizations set specific objectives and goals when they start operating. when it commences. The effects of internal and external factors that prevent them from determining how and when they achieve they goals and objectives they value are assessed as "risk." Businesses and organizations can only make this objective more realistic by taking into consideration the risks that may affect the outcome on the road to that end. The concept of "risk management" is used to avoid the risk of negative impacts or to eliminate them. Risk management covers all processes related to risk identification, assessment and decision making, risk reduction or pre-requisite review, as well as monitoring and analysis, communication and consultation.



Risk management is important for businesses and organizations, and this process should be carried out step by step in a systematic way. The main purpose here is to completely or partly avoid the negative effects of risks to the organization and its image, the quality of its products, the position of the product in the local and foreign markets and the health of consumers of these products.

In order to implement the risk management process, activities such as establishing a risk management system in enterprises and identifying potential risks, preparing the necessary documents and procedures, taking into account the estimated risks and implementation of a reserve and corrective action plan are applied. Here, also, the quality of

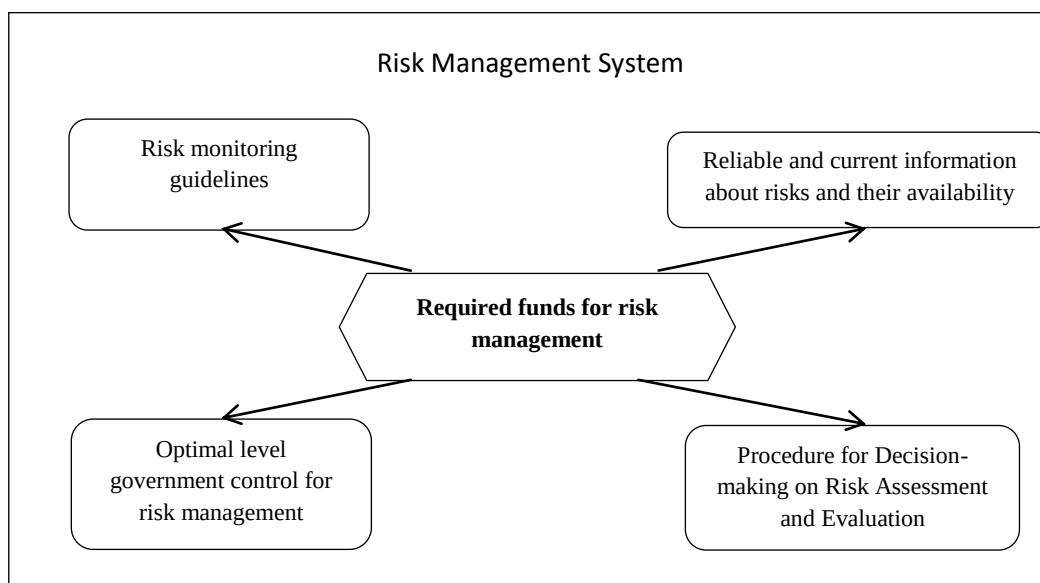


Figure 1: Risk Management System and The funds required for this process

the risk management process itself is measured on a regular basis, and the negative aspects of the process (if any) are corrected. The main purpose of the risk management in the enterprise is to minimize losses, ensure the safety of the work process and maximize the revenue. The list of funds required for risk management in enterprises and organizations is given in Figure 1.

1. International Standards and Risk Management

A number of standard projects have been developed by international organizations that make significant progress in managing the risks in production, economy, education, transportation, medicine, and many other areas. Gradually, these projects have been tested and implemented by different enterprises, and the problems have been solved and projects have been improved. These normative documents have been renewed over time and new versions have been widely used in modern times. The HACCP principles of the above-mentioned standards are used only for the management of risks that may arise in every area of human activity, including the production of food products, and the ISO 31000 standard for food production. Some countries have drafted and implemented number of standard projects that was prepared by harmonizing national standards with some of these international standards. [9] - [12]

The requirements of International standards for risk management indicate that regular monitoring is the most important action to ensure that the processing plan is consistent and adequate. Each stage of the risk management process, including the proposals applicable methods, data sources, analyzes, results and reasons for the decisions taken must be documented and noted. [14]

1.1. HACCP system principles



The main principle of applying the HACCP (Hazard Analysis and Critical Control Points) system is to conduct a thorough analysis of risks and to identify critical control points. The application of the elements of this system in the

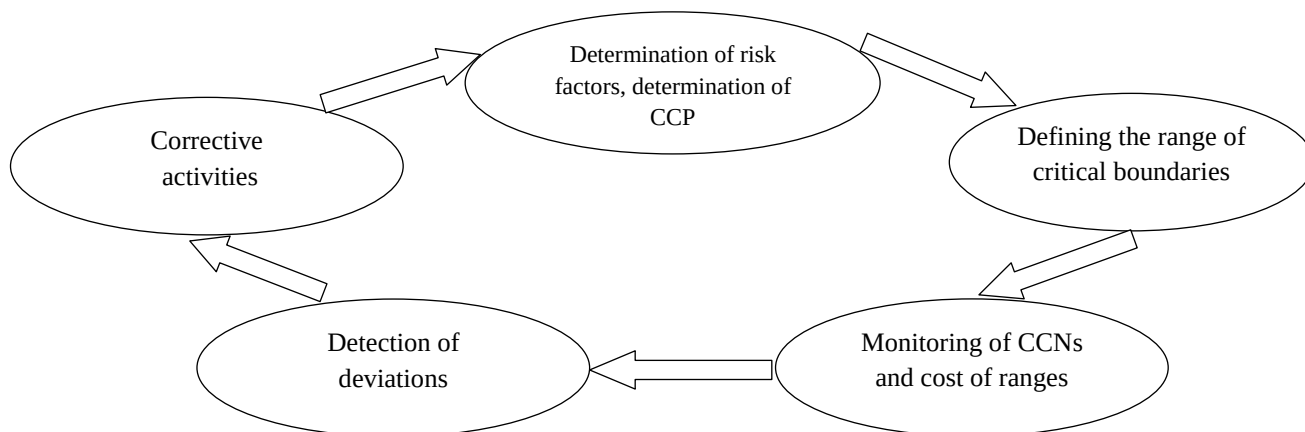


Figure 2. Periodic scheme of risk management, based on the principles of the HACCP system

production envisages control of the risk at any point in the production activity and the implementation of the necessary measures. HACCP is a food safety management and risk management system, primarily a warning system that systematically detects, evaluates and controls potentially hazardous factors that may arise during production [5]. These factors are biological, chemical and physical risks.

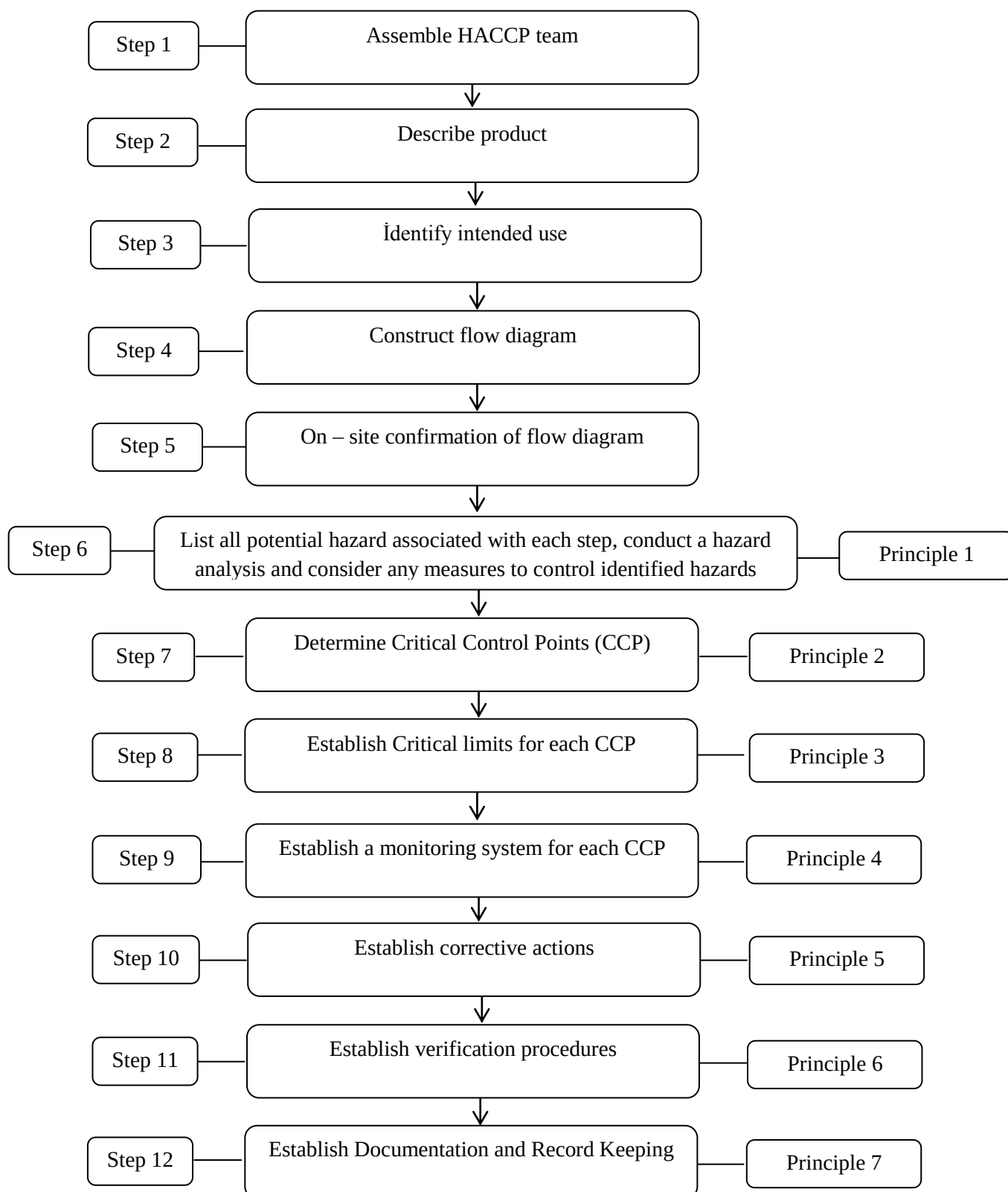




Figure 4. Stages of application of the HACCP system and its 7 principles

For the first time, the HACCP system was designed to provide safe nutrition for astronauts in NASA in the United States in 1960 [11]. The principles of the system that self-sustained in this field have gradually been studied and applied by ordinary manufacturers acting in different countries over the world. The principles of the HACCP system are designed exclusively for food manufacturers and so far, many researchers have conducted assessments before and after the system's application to determine the benefits of its application. The results are almost identical: the application of the HACCP system elements ensures the safety of foodstuffs, the protection of consumers' health, and the control of critical control points by monitoring the entire production cycle of produced products.

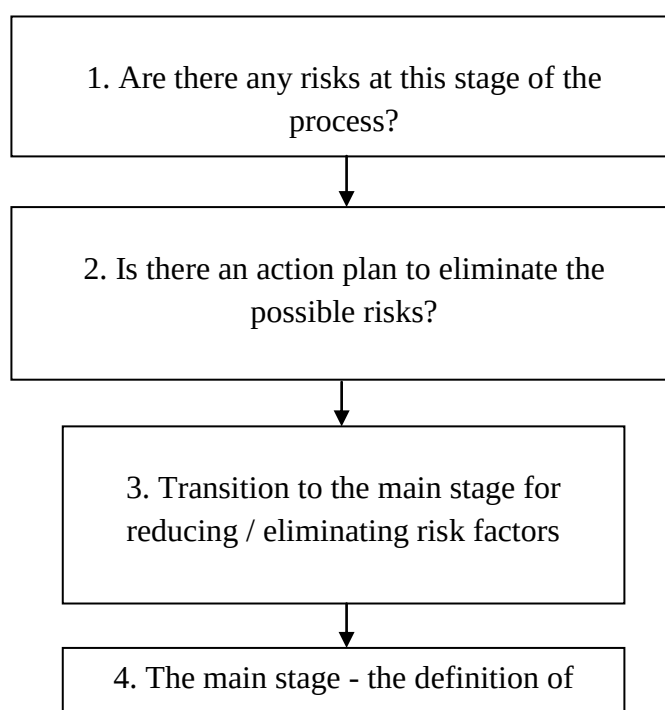


Figure 3. The sequence of Critical Control Points (CCN) assignment

The main objective of the HACCP system implementation is to provide a high-quality product, to provide comprehensive security controls that ensure safety in all the rings of the food chain, and educate personnel involved in this process through training. This system has emerged as a result of systematization of pre-existing world-class safety requirements and has been widely used by leading countries, many secular alliances, and have been widely used [4]. The HACPP system also requires proper documentation of all processes, renewal of documents, accessibility for everyone, training of employees and management involved in training. For the introduction of the HACCP system, manufacturers should not only research their products and production methods, but also apply this system and its requirements to raw materials suppliers, supporting materials, and wholesale and retail trade systems.

1.2. ISO 31000 standard

ISO 31000: 2009 The "Risk Management, Guidelines and Guidance" standard includes the principles and comprehensive requirements for managing potential and existing risks including the indirect healthcare industry, so as to minimize their negative impact on the outcome (Figure 5). This standard was developed by the ISO Technical Guidance Group [3]. Although this standard provides generalized guidance, it is not intended to ensure uniformity of risk management across all organizations. When creating and implementing plans for infrastructure risk



management should take into account the different needs of a particular organization, its particular objectives, situation (context), structure, operations, processes, functions, projects, products, services, or assets and specific practices adopted In the organisation.

Until the end of 2015, national standards bodies in 57 different countries adopted ISO 31000 as a national standard for the risk management in their country. ISO 31000 is broadly accepted by many public and private companies, government owned, nonprofits, different charitable organizations and as the standard is not specific for any field of activity the list of its implementing by organizations and enterprises is quite large. Nowadays 2018 version is available and the main changes from first edition is given in figure 4. And while ISO was developing the 2018 version of this standard, was received over 5000 comments from over seventy countries [16].

A working group organized by ISO reviewed the existing normative and technical documentation as well as the best practices of New Zealand, Canada, Australia and other countries. Summarized by defining effective areas of work in the field of risk management. Thus, a new architecture was created that was ISO 31000, the latest terminology that has always been updated, and the necessary work has been done to ensure that the requirements of this standard should be applied to different cultures, enterprises and languages as easily as possible [8].

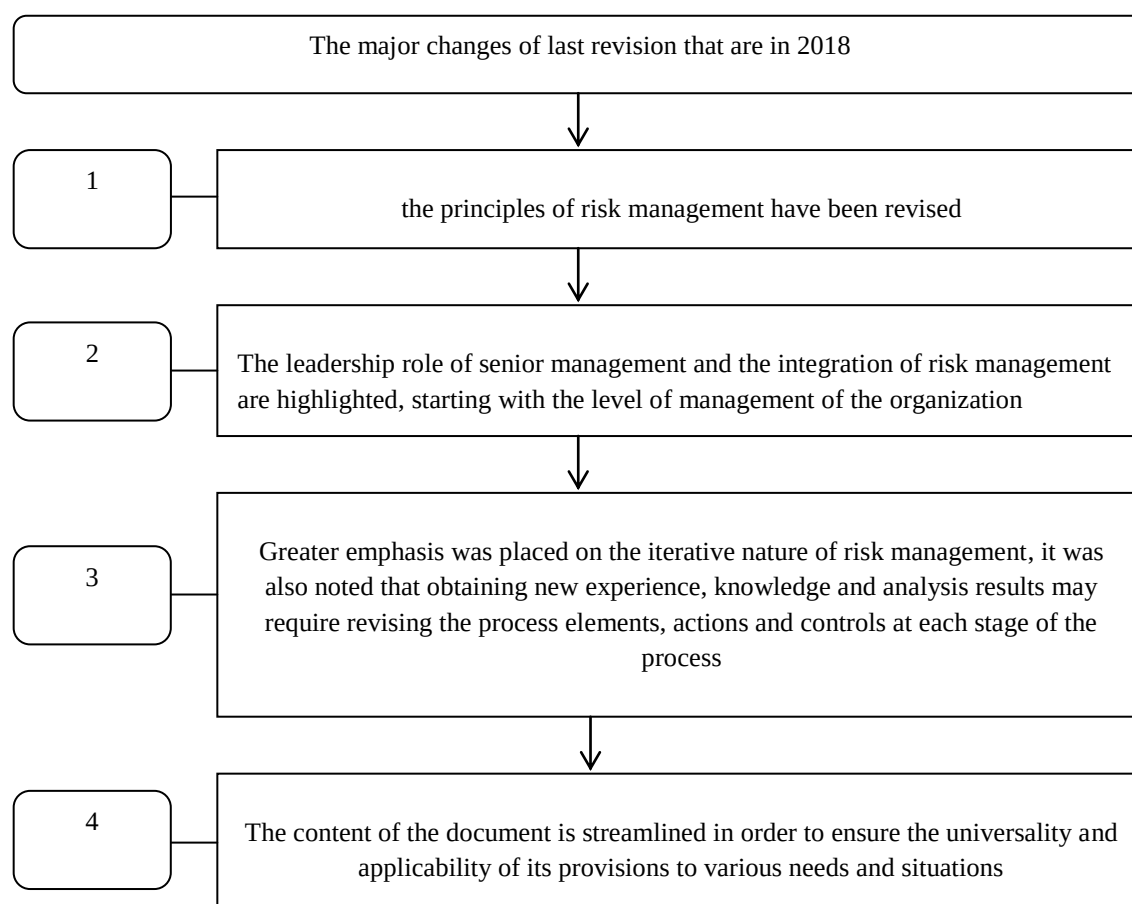


Figure 3. The main changes of 2018 version of ISO 31000 standard

ISO 31000 is the first international standard of risk management practice and was first published in 2009. The draft standard has been recognized as an internationally recognized document, with its very easy implementation rules and requirements, as well as examples of best practices in the field of risk management. The Working Group has developed ISO 31004 - Technical Presentation to facilitate the application of the standard in various enterprises and



organizations. The ISO 31000 standard, as well as other ISO standards, is revised every 5 years, and in the context of the requirements can be reviewed and necessary changes in the new version are offered.

The risk management process in enterprises and organizations is carried out according to the requirements of ISO 31000: 2009 standard [7]. Keeping contacts with internal and external stakeholders and arranging consultations are essential at all stages of risk management. Therefore, plans for communication and consultation should still be developed at the first stage of implementation of the standard, ie at the planning stage. This plan should cover direct risks, their nature, impact rate, their causes, and, if known, the measures taken to remedy such risks. When building a context, the organization explicitly identifies its objectives, identifies internal and external factors that will be taken into account when managing risks, and chooses the scope and criteria for the risk exposure for the remaining processes. Although many of these parameters have been considered during the risk management concept development, they should be re-examined during the context of the context and how they should affect the management process in any particular risk area.

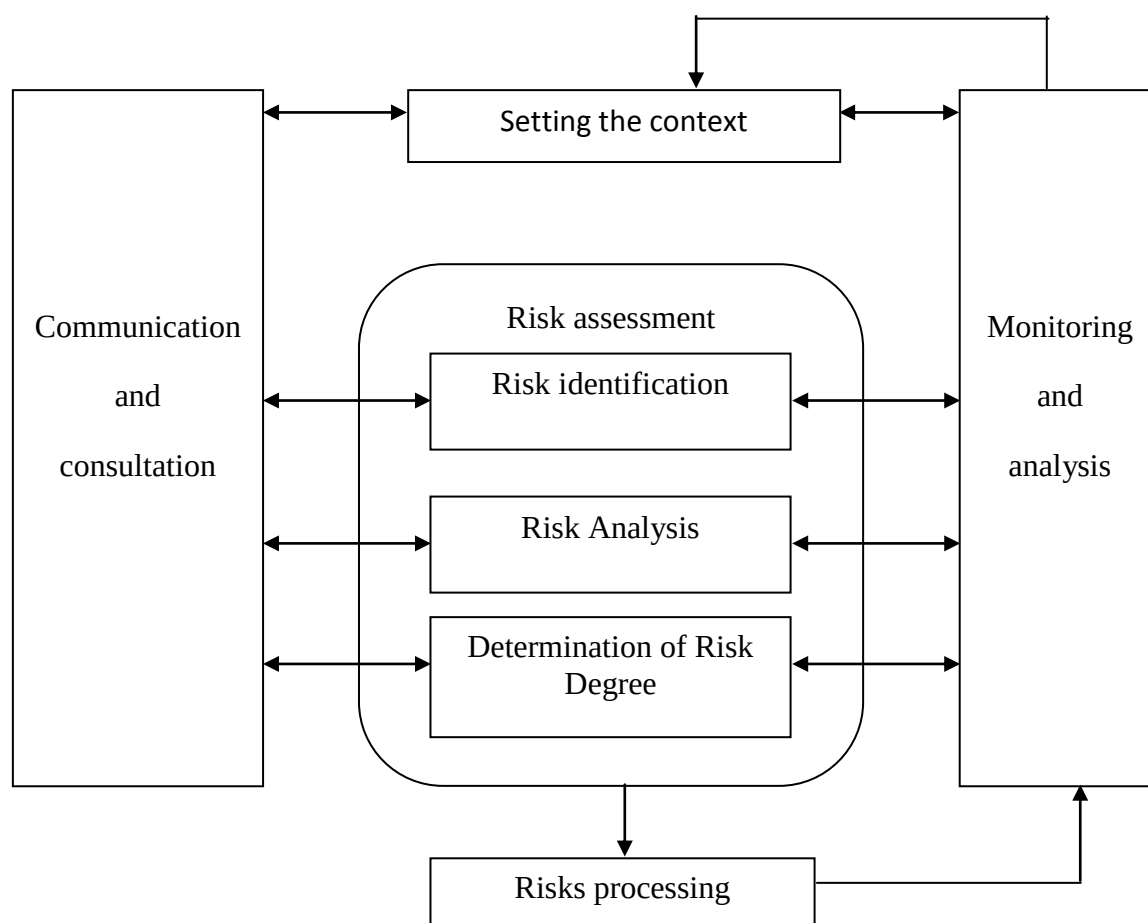


Figure 4. Risk management process at the enterprise according to ISO 31000: 2009 standard

There are some factors that hinder the effective risk assessment when creating a risk assessment system for risk management: it is important to overcome these barriers to properly arranging the risk management process and to properly evaluate the risk. These barriers are given at table 2.

Table 2. Risk barriers [ISO 31000:2009 — Principles and Guidelines on Implementation, 2009.]

1	The absence of planning
2	Limited resources
3	If the planning is designed for a short period of time



4	Lack of high quality actual information
5	Absence of qualified personnel, experience and resources at the enterprise
6	The difficulty of accurately evaluating risks and opportunities and achieving a rational balance between them
7	Fear of innovation failure
8	In some cases, political concerns related to the need for open risk acceptance

Many of these factors operate simultaneously and in unity. These obstacles indicate the need for adequate and timely risk assessment and formulate a database of information that decision makers and their advisors have the information they need and also create an organization's culture and incentive that ensures that the risk is well thought out.

The organization should identify the source of risk, its impact areas, risk situations, causes, as well as their potential outcomes before commencing work. For this purpose, risk identification should be undertaken, which is to compile a complete list of risks that the organization can achieve to achieve the desired outcome. It is also important to identify the risks associated with lost opportunities. Also, full identification is very important, as if at this stage there is an unequal risk, it will not be included in the analysis at a later stage. And thus, there is a potential risk of future risk. Identification should cover all risks, even if the source of the risk is unknown. It does not matter if the source of the risk is under the control of an entity.

Employees with relevant knowledge in risk identification should be involved in the risk identification process.

Understanding it is crucial to the risk analysis. Risk analysis ensures that decisions are made on different types and levels, particularly those related to choice. Risk analysis incorporates the causes and sources of risk, its positive and negative consequences and the likelihood of these consequences. Also, existing management methods, their effectiveness and adequacy should be kept in focus. Factors such as overlapping of experts' opinions, constant reliability and regularity of information, and restrictions in modeling should be clearly formulated and put to the forefront.

The purpose of the risk assessment is joint action when making decisions based on the results of the risk analysis that is important. Determination of the degree of risk involves the comparison of the criteria of the degree of risk found in the risk analysis process with the criteria set out in the context of the context. The importance of processing is reviewed on the basis of such comparisons. Decisions should be made in accordance with legislation of country and relevant regulatory requirements. In some cases, the risk assessment results indicate that additional valuation is essential. Stages of the risk treatment process are shown in Table 3 in sequence.

Table 3. Stages of the risk treatment process in accordance with the requirements of the ISO 31000 standard

1	Evaluation of risk processing
2	Adopting a decision on the availability of existing risk
3	Application of new generation processing techniques, if risk is not acceptable
4	Evaluating the effectiveness of processing

A risk treatment plan is prepared for risk treatment purposes. The objective of risk treatment plans is to document how the selected processing method will be applied.

Risk management is an integral and important part of the overall good governance of the organization. Based on ISO 31000 standard requirements, the following 10 principles are proposed for ensuring effective risk management:

1	The organization should be careful about the risk management process
2	Risk management should be closely interconnected with organizational management



3	Responsibility for risk management should also be closely related to strategic management
4	The integrity of the approaches should be ensured. The risk management should be considered during the selection of the benefits and the distribution of revenue, and the decision making should be integrated both at the employee and the strategic level.
5	Risk management is a catalyst for changes in the organization's culture. Effective risk management has an inevitable effect on the organization, creating a favorable environment for communication, culture, leadership and innovation, which is essential for the economic growth of the organization.
6	Risk management is a non-static, dynamic, continuous process. The risk management process is aimed at achieving the organization's goals. When the goals are changed, the risk management process is also changed.
7	Risk management should be systematic, consistent and proportional to the level of risk.
8	Risk management should be a serious process that meets the expectations of decision-makers and stakeholders based on internal or external context, adapted to the organization's strategic goals or needs of any project.
9	Risk management should be a justified decision. Risk management should ensure that all objective factors of the risk are reviewed.
10	Risk management should be a transparent process.

Method

In this research, the international standards applied to risk management, their application processes, and the benefits obtained from the application of these standards have been studied. Also, were reviewed researchs on the implementation of international risk management standards of different researches from various countries. The results of different studies have been compared and conclusions have been made.

Findings

The manufacturer of the ISO 31000 standard gets a guarantees for the quality of the product, regardless of the production volume and the type of product he/ she is accustomed to. And most importantly, the high quality products obtained by the requirements of international standards do not require large amounts of material facilities and resources. And here the number of losses and disadvantages is at a minimum level.

Any manufacturer who applies and maintains the HACCP systems principles is able to evade from 5 from dangerous factors that are shown in table 4.

Table 4. Hazardous factors that Enterprises can be prevented by applying the HACCP system

1	The application of a wide range of potentially hazardous materials	
2	3 types of risk	Chemical
		Biological
		Physical
3	Endangering human health	
4	Waste of financial resources	
5	Losses that may result from improper or incorrect production	

Results, Conclusions and Recommendations

The researchers used the elements of the principles of the HACCP system at the University cafeteria, provided staff with training, and organized microbiological tests to identify the bacterial content of 894 samples. Consequently,



harmful microbiological bacteria and organisms have not been identified in the samples taken from them and the researchers emphasized the importance of the application of this system and the importance of organizing trainings [6]. Another group of researchers from Turkey conducted a research on the quality of the food at the hospital, the views of patients who eat these dishes, and the testing of samples. In the study, 466 patients were evaluated before and after the HACCP system, evaluating 74.7, and later, 81.3.

Establishing and applying a risk management system that meets international standards for risk management protects the production process from the risks of the risks, low product quality and high quality. In this regard, taking into consideration the requirements of world-class standard projects and the application of these standards directly to the production process, which are tested during the risk management process, make the risk management process more efficient.

Thus, given the fact that the risk management process has been applied to many important areas of high risk, which can directly affect the health of people and the environment, we clearly see the importance of this process based on the requirements of international standard technical documents - standard projects.

Oxqarlıq hesabı



Universitet:	Azerbaijan State University of Economics (UNECE)
Yarımçoba:	Ölkələrimiz qəbəsi
Ad:	The role of international standards for risk management to ensure high quality at enterprises
Müəllif:	Khayri UMUDOVA, Məhəmmədali MURİYEV
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References

1. AS/NZS 4360:2004 "RISK MANAGEMENT", Avstraliya və yeni Zelandiya.
2. Аршакуни, В. Л. От системы ХАССП – к системе менеджмента безопасности пищевой продукции по ИСО 22000 // Стандарты и качество. – 2008. – № 2. – С. 88–89.
3. B.T. Cenci-Goga, R. Ortenzi E. Bartocci A. Codega De Oliveira F. Clementi A. Vizzani, "Effect of the Implementation of HACCP on the Microbiological Quality of Meals at a University Restaurant"
4. CSA Q 850:1997 "RISKMANAGEMENT GUIDELINES FOR DECISION MAKERS", Canada.
5. Dorothy Gjerdrum. A Brief History of ISO 31000 – and Why It Matters. (<https://riskandinsurance.com/a-brief-history-of-iso-31000-and-why-it-matters>)
6. https://en.wikipedia.org/wiki/Hazard_analysis_and_critical_control_points
7. <https://www.erminsightsbycarol.com/iso-31000-vs-coso>
8. <https://www.iso.org/home.html>, 2018, International Organization for Standardization.
9. ISO 31000:2009 "RISK MANAGEMENT – PRINCIPLES AND GUIDELINES".
10. ISO GUIDE 73:2009 "RISK MANAGEMENT – VOCABULARY".



11. ISO 31000: 2009 — Principles and Guidelines on Implementation. 2009.
12. JIS Q 2001:2001 “GUIDELINES FOR DEVELOPMENT AND IMPLEMENTATION”
13. Patients Satisfaction Level Before and After HACCP/ISO 22000 Implementations to Food and Food service in University Hospital, Ankara, Turkey. D. Dikmen, M.F. Uyar, Mevlude Kizil, M. Tengilimoglu
14. ГОСТ Р 51705.1 — 2001 Системы качества. Управление качеством пищевых продуктов на основе принципов ХАССП. Общие требования. Область применения
15. ГОСТ Р 56671-2015 «Рекомендации по разработке и внедрению процедур, основанных на принципах ХАССП»
16. ГОСТ Р ИСО 31000 – 2010 «Менеджмент риска. Принципы и руководство»



Paradigms of Modern Education: Perspectives of Life-long Learning Technology Development in Azerbaijan

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Abstract

Nowadays, there is an increasingly important basic skill in ever-changing technological universe: ability to learn and adapt to the needed new skills and training. The main purpose of lifelong learning is to allow individuals to take active part in all walks of socio-economic life in order to be able to adapt to the information society they live in and better secure their lives. Lifelong education is the provision or use of both formal and informal learning opportunities throughout people's lives in order to foster the continuous development and improvement of the knowledge and skills needed for employment and personal fulfillment. Significant efforts have been carried out in latest years to develop education, particularly in establishing and developing processes for lifelong learning and ongoing education in Azerbaijan. The 4th strategic direction of the State Education Strategy for the Republic of Azerbaijan, provides an educational infrastructure to fully satisfy the demands of the modern world and provide long-term education. With the aim of implementing this Strategy in the scope of its Action Plan, The Cabinet of Ministers of the Republic of Azerbaijan has approved, the "National Qualifications Framework for Life-Long Education in the Republic of Azerbaijan."

Keywords: Lifelong education, Technology, Quality of education, Labor market requirements.

Introduction

The most important factor to consider when building a competitive national economy is the direct proportion of sustainable economic growth with the quality of education in the country. The ever-increasing importance of education in human life today makes the ideology of the transfer of ready knowledge to the ideology of the formation of competences over time. Already in the world, the quality of education is no longer measured by the number of years of study of the person receiving the education, but by the usefulness of what he has learned for the life of him and members of society. In our constantly changing technological world, a basic habit becomes even more important: to be able to adapt to the necessary new habits and be able to learn.

In our time, there are serious changes in the "education paradigm" of post-industrial and information societies in comparison with the "education paradigm" of the industrial society, and according to the philosophy of these changes, being the achievement of individuality, education acts as a means of self-realization in life. In the hundreds of years since the introduction of the Humboldt model of university activity, approaches to the content, purpose and methods of teaching in traditional education are rapidly changing and updating. Education is at the heart of human progress. Economic and social prosperity in the 21st century depend on the ability of nations to educate all members of their societies to be prepared to thrive in a rapidly changing world. An innovative society prepares its people to embrace change.

The growth of the globalized and rapidly changing knowledge economy once again proves that people need to increase their professionalism and professional level in order to be competitive in the work process and to be successful in their personal lives. Thanks to this new thinking, a new progressive principle in public consciousness and public policy has been put forward in developed countries that seek to reach more people in higher education: education is not simply a specialist training, but rather a general intellectual, technological and cultural purpose of society. The international community has developed a number of strategic programs to ensure the appropriate role of education for all age categories of the population. These programs cover two main



areas of innovation in education - 'education for all' and 'lifelong learning'. The main provisions of the UNESCO-initiated strategy "Education for all" (Education for All, EFA) were put forward at the "Education For All-World Conference" held in Jomtien, Thailand in 1990. The World Declaration on Education for All adopted at the conference stressed that "education is the fundamental right of all women and men, regardless of age, all over the world... education should lay the foundation for a safer, healthy, developed and ecologically clean world and at the same time lead to social, economic and cultural progress, tolerance and international cooperation... education is a necessary condition for personal and social improvement". Educational Conference for All and Jomtien declaration highlighted the crucial role of education for the national development of states, as well as for the preparation of young people for active and productive life in 21st century societies. The concept of "Lifelong Learning" adopted by the ministers of education of OECD countries in 1996 has essentially completed the strategy of "education for all" and serves to promote the human being to the modern information-market environment. The concept of lifelong learning is particularly important for developing countries and transitional economies, because in these countries, the environment of both society and individual is changing rapidly.

Table 1. Changing paradigms in traditional and modern teaching (Human Development, 2014).

Elements of paradigms	Industrial Society	The Postindustrial Society
Values	Education is for public production Education is for life readiness	Education is for one's moving forward in life (personal career, dreams) Education continues throughout life
Motives	Education is compulsory for learners The activity of the educator is the fulfillment of the professional duty	Education should increase the interest and enthusiasm of learners The educator is genuinely interested in the development of students
Norms	The educator is responsible for the success of the teaching ("there is no bad student, there is a bad teacher") Teacher's authority is formed by keeping distance and requiring disciplinary and serious effort from students.	Learners are responsible for their own learning ("no teacher can teach you unless you want to learn") The educator's authority comes at the expense of his personal qualities
Goals	Education contributes to the acquisition of scientific knowledge	Education shapes human culture and teaches practical skills
Participants	Educator transmits knowledge The educator is superior to the learners	Educator creates conditions for independent learning Educator is a partner of learners
Methods	Hierarchical and authoritarian methods Stable structure of subjects Group exercises are preferred under the guidance of the educator	Active participation and egalitarian methods Dynamic structure of subjects Emphasis is placed on the independent work of learners
Tools	The main teaching material is textbook	In addition to the textbook, various information, telecommunications, traditional, and social media resources are encouraged to use
Control and evaluation	Supervision and evaluation are mostly performed by educators	Self-control and self-assessment of learners are emphasized

Lifelong education can be viewed as a learning process that equals life expectancy. Lifelong education takes place everywhere at school, at work, at home, and in short, within society. Boundaries such as age, social status or level of education for Lifelong Learning are not subject to discussion. For this reason, it is necessary to perceive lifelong education as a continuous activity that supports the acquisition of knowledge and skills that will ensure the success of both individuals and society both professionally and socially (Strengthening the system of vocational education and training (SVET), 2006). The main purpose of lifelong learning is to allow individuals to take active part in all walks of socio-economic life in order to be able to adapt to the information society they live in and better secure their lives. (Turkey lifelong learning strategy document, 2009). At present, education, along with the knowledge and skills required in the economy, should carry out such tasks as



comprehensive preparation of the citizen for future integration into life and society. The satisfaction of the need for lifelong learning is one of the factors that increase the role of education in economic life". (National Strategy for the development of education in the Republic of Azerbaijan, 2013)

Lifelong learning is based on the idea that children, young people and other people can benefit from the educational opportunities they need throughout their lives. The fact that school education takes place in the individual's childhood and youth period can cause the individual to remain incompetent in solving real life problems that he will face in the period after graduating from school. For this reason, the period of post-school and post-university education is becoming more important in solving the problems of people who have exceeded childhood and youth. The term continuous education and lifelong learning was first used in the materials of UNESCO in 1968, and in 1972 UNESCO adopted a decision on the principle of continuous and lifelong education as the basic principle, "leading structure" for innovations and reforms in the field of education in all countries of the world. (Zaitseva, O., 2009). Lifelong learning is no longer just one aspect of education and training; it must become the guiding principle for provision and participating across the full continuum of learning context.(Abukari, A., 2004). Lifelong learning offers people the opportunity to bring up to date their knowledge of activities which they had either previously laid aside or always wanted to try but were unable; to try out activities and pursuits that they had previously imagined were outside their time or competence; or to work at extending their intellectual horizons by seeking to understand and master some of the recent cognitive advances, that have transformed their worlds. (Aspin, D. & Chapman, J., 2001.)

The main element of the European Union's educational policy is lifelong education. In the texts that shape the education policy of the Union, lifelong learning is not only a form of education and vocational training, but also the concept of guiding individuals to form a learning environment and participate in this learning environment. (Erhan Baghji, 2011). Life-long education policies in the European Union have gained importance with the adoption of the 1996 "European Year of Lifelong Learning" and accelerated by the Lisbon summit in 2000, which set the 10-year strategic goals. (Osman Samanji, Ebru Ojaklı, 2017). According to the Lisbon strategy, lifelong education covers all forms of education and training at all stages of life - from preschool to retirement and beyond, with the aim of providing any purposeful education that is carried out continuously in order to improve the knowledge, skills and competences needed for personal and social development, as well as for employment. The following are some of the key points of Lisbon's strategy for lifelong education:

- High quality preschool education;
- Elementary education that enables all children to read, write, score, and master the skills of information and communication technologies and to develop basic social skills;
- Secondary education to develop the necessary knowledge and skills in all students, taking into account the requirements of the labor market;
- Professional education and training that builds skills and habits that meet the requirements of the labor market and state-of-the-art technology, as well as achieving higher professional qualifications in various fields;
- Higher education, which provides opportunities for every person who will be able to make a profit in the labor market as a specialist with a diploma and provides conditions for benefiting from these opportunities;
- Professional training of citizens and their families, providing real opportunities for life-long professional development, carried out with the appropriate support of employers or the state.

On October 30, 2000, the European Commission declared a "Lifelong Learning Memorandum" and defined lifelong learning as an umbrella that provides a combination of all types and forms of education. The commission recommended the formation of a society in which equal opportunities for all people for lifelong learning are recognized, educational services are determined and regulated according to the requirements of



individuals. The European Union is preparing and developing strategies to continuously upgrade and improve lifelong learning systems so that its citizens can actively participate in the business, adapt to changes in society, and easily access needed education programs.

The goal of the lifelong learning process is not only to teach a person all his life, but also to ensure his own learning. Today, lifelong education is realized through both formal and informal education. Formal education is related to the acquisition of certain qualifications and degrees, in the end, the person receives a diploma of graduation of any secondary or higher education institution, a diploma of a doctor of philosophy or a professional qualification recognized in the labor market. Informal education is an education where the level of formal qualification cannot be obtained, and at the end of this education frame, it is also possible to obtain any document (preschool education of children, additional education, certificate programs, foreign language and refresher courses). Informal education is the process by which each person learns himself at any time in his daily activities, in the process of work, at home, at rest.

The Communication on lifelong learning (European Commission, 2001) defines core concepts as follows: (a) formal learning is typically provided by education or training institutions, structured and leading to certification. Formal learning is intentional from the learner's perspective; (b) non-formal learning is not provided by an education or training institution and typically it does not lead to certification. However, it is structured, in terms of learning objectives, learning time or learning support. Non-formal learning is intentional from the learner's point of view; (c) informal learning results from daily life activities related to work, family or leisure. It is not structured. Typically, it does not lead to certification. Informal learning may be intentional but in most cases, it is non-intentional. (Colardyn, D. & Bjornavold. J., 2005).

Lifelong learning takes place at all times and in all places, as:

- Age 0-5 years: A lot of learning takes place during this age group to provide a foundation for future learning habits and talents. This is probably the age with the highest amount of informal learning as children imitate almost everything from parents, peers and their environment.
- Age 6-24 years: Learning at this age group primarily takes place in educational institutions, from primary and secondary to tertiary levels.
- Age 25-60 years: This age group can learn informally through the use of instructional media, mostly from their occupations, work-places, colleagues, touring, mass media, information technologies, environment and nature. Adults learn from experiences and problem solving.
- Age 60+ years: Elderly people can learn a great deal from activities suitable to their age e.g. art, music, sports for the elderly, handicrafts and social work. (Marjan L., 2011).

Issues related to formal education in Azerbaijan are regulated by the "Rules of Formal Education Organization" approved by the Cabinet of Ministers decision No. 147 dated August 6, 2010. According to the rules, formal education is a form of education, which ends with the issuance of a state educational document. According to the rules, since general education, primary vocational education, secondary vocational education, higher education, retraining, higher or secondary vocational education is completed with the issuance of the state educational document, formal education is carried out through visual, correspondence, distance (distance), free (eksternat) forms defined by the legislation. According to the rules, formal education is carried out in general, primary vocational, secondary, higher and additional educational institutions.

Methods

The beginning of this article provides an overview of the concept of lifelong learning and explores the concepts of lifelong learning. The answer to the main questions on this topic was determined as a result of the analysis of



the literature on lifelong education, as well as the analysis of the legal normative base of the modern education system of Azerbaijan and the real situation of the development of the education system. The main objective of the study was to investigate the following topics:

1. To determine the importance of developing lifelong learning technologies in ensuring sustainable development of the country in the era of knowledge economy;
2. A comprehensive analysis of the main directions of the state policy and the current state of the legal framework in this field, implemented in order to re-establish the concept of lifelong education, which acts as a new paradigm of education in the popularization of education in Azerbaijan and wide application of the concept of continuous education;
3. Investigation of the present state of activity of elements of the education system that ensure the reintegration of the concept of lifelong education in Azerbaijan;
4. Identification of existing problems in the development of lifelong learning system, as well as measures necessary to be implemented by the state in this field.

The data required for this study were obtained from the the reports of the Statistical Committee of the Republic of Azerbaijan, the Ministry of Finance, the World Bank and other international organizations. Comparative, historical and statistical analysis, analysis and synthesis, induction and deduction, abstraction were used in the course of the study.

Findings

In recent years, important work has been done to develop education in Azerbaijan, especially to establish and develop lifelong education and continuing education. In Article 11 of the Education Law of the Republic of Azerbaijan adopted on June 19, 2009, as one of the main tasks of the organization of education, it was determined that the students should receive continuous education, acquire knowledge and outlook which are constantly updated, conforming to modern standards, meet the needs of society more effectively, develop as a personality and ensure that lifelong education is open and equal for all.

The development concept of “Azerbaijan 2020: outlook for the future”, approved by the decree of the president of the Republic of Azerbaijan dated December 29, 2012, is intended to modernize library activities to meet the growing demand for self-education and lifelong learning, increase the number of electronic libraries, support the development of distance education and wide application of distance education in higher education. [*\(DEVELOPMENT CONCEPT “AZERBAIJAN - 2020: OUTLOOK FOR THE FUTURE”*](#). (2012)

The fourth strategic direction of the “State Strategy for the Development of Education in the Republic of Azerbaijan” adopted in October 2013 is intended to create an educational infrastructure that meets modern requirements and provides lifelong learning, which includes measures such as establishment of infrastructure in accordance with information and communication technologies based training methodology in educational institutions, establishment of regional universal centers providing distance education, education and development for children in need of gifted and special care, education of the elderly, vocational and educational advisory services, modern vocational and educational centers and schools, creation of campuses.

On July 18, 2018, the Cabinet of Ministers of the Republic of Azerbaijan approved the “National Qualifications Framework for lifelong learning of the Republic of Azerbaijan” in order to ensure the implementation of the action plan on the implementation of this strategy. As one of the main objectives of the National Qualifications Framework for lifelong education of the Republic of Azerbaijan, support for lifelong learning, recognition of skills acquired through non-formal and non-formal education has been determined, as well as levels of National Qualifications Framework and level descriptors, documents confirming them have been determined.



Provision of vocational training and qualification for elderly persons has been determined as one of the strategic targets and priorities of the “Strategic Road Map on the Development of Vocational Education and Training in the Republic of Azerbaijan” prepared in 2016 in order to develop the vocational education system that prepares qualified personnel based on educational programs in accordance with the requirements of the labor market in Azerbaijan. The strategic road map shows that the education of elderly people is an integral part of the lifelong education system, and it is an educational process that enables the population to adapt and flexibly adapt to dynamic changes in society and economy. According to the strategic roadmap, older persons are the ones who have passed the age of maturity, have lived an independent life, have life experience and, in many cases, a profession.

In order to ensure the opportunity of each citizen to receive continuous education, the Cabinet of Ministers of the Republic of Azerbaijan approved “The procedure for the content, organization of supplementary education, and the provision of relevant documentation to those who received additional education” with the decision No 163 of September 6, 2010. This rule is the main normative framework for the implementation of lifelong education in Azerbaijan. It is indicated in the procedure that additional education provides an opportunity for each citizen to receive continuous education and carries out the tasks of development of human potential, enhancement and improvement of the level of human resources and vocational training, their adaptation to constantly changing and renewing working conditions, ensuring active and effective participation of elderly citizens in the social, economic, political and cultural life of the country. According to the procedure, for the purpose of lifelong education in the Republic of Azerbaijan, it is possible to benefit from such directions as further education, retraining of personnel, stacking and improvement of personnel, re-higher education and secondary specialized education, raising degrees and elderly education, and persons who have received education in one of these directions are given the relevant document on the basis of mastering educational programs. According to the rules, the main purpose of the qualification education is to raise and improve the level of intellectual and vocational training in the specialty of each specialist, to adapt to constantly updated working conditions, to ensure active and effective participation in the social, economic, political and cultural life of the country. Training and professional development aims to improve the professionalism of the staff, to improve the skills of the personnel, to link theoretical knowledge with the experience, to gain more modern professional knowledge and skills, to gain experience in the application of new technologies and innovation systems. Raising the rates reflected in the rules is the type of education that provides for the preparation of personnel who have graduated from secondary vocational education institutions and received a sub-bachelor's degree in the appropriate specialties. The direction of education of the elderly is due to the need to re-specialize, adapt to new conditions and create new job opportunities for a large part of the able-bodied population to be competitive in the labor market. The purpose of the education of the elderly is to ensure the active participation of the elderly citizens in the ever-changing life of society.

Table 2. Key indicators of education during independence years in Azerbaijan

	1990	1995	2000	2005	2010	2015	2016	2017
Number of pre-school education institutions	2185	1973	1790	1764	1638	1722	1750	1 785
Number of children in preschool educational institutions - persons	180870	136796	111020	110017	112892	117239	118685	124 221
Number of full-time secondary schools	4268	4480	4548	4550	4532	4462	4452	4 438
Number of pupils in full-time secondary schools - persons	1349489	1487700	1653703	1583628	1324564	1353309	1461748	1520186
Number of teachers in general education institutions	123813	152959	161492	171788	172579	158275	157018	155 940



Number of primary vocational education institutions	176	160	110	107	109	113	112	111
Number of pupils in primary vocational education institutions	82188	27689	22944	22189	27330	24482	23814	24 024
Number of secondary specialized educational institutions	78	89	71	60	62	61	55	55
Number of students in secondary specialized educational institutions - persons	58838	33553	42612	57896	53451	56427	51702	47 402
Number of higher educational institutions	17	46	47	47	51	54	51	51
Number of students in higher educational institutions - people	105063	98812	119683	129948	140241	161234	163779	167 677
Number of students in higher education institutions per 10,000 people	146	133	147	152	154	168	169	171
Number of students admitted to higher educational institutions:								
undergraduate - total, persons	19497	19238	26403	28747	29904	33645	36126	38 546
magistrature- total, persons	-	-	2752	3236	3698	4953	5098	6 515
Number of specialists graduated from higher educational institutions - persons	18235	17436	24488	32508	31071	33705	36951	37 506
Number of specialists issued by higher education institutions for every 10000 people of the population	26	23	30	38	34	35	38	38
Number of enterprises implementing the program of training of doctors of philosophy	64	84	83	94	95	111	110	117
Number of students enrolled in the PhD program	1340	1282	963	1479	786	2282	2182	2 168
Number of institutions implementing doctoral programs	...	15	21	21	26	78	77	88
Number of students enrolled in doctoral program – persons	...	38	47	80	91	593	541	555

In 2017, there were significant reductions in all indicators of preschool education in Azerbaijan compared to 1995. Thus, a decrease was observed both in the number of preschool institutions (a decrease of 18 percent) and in the number of children in preschool institutions (a decrease of 31 percent). Taking into account the increase in the number of population in Azerbaijan by 1-1.5 per cent annually, we can say that this is an indicator of the fact that these people do not direct their children to preschool institutions. In contrast to pre-school education, there is an increase in all indicators in general education schools. The number of general education institutions increased by 4 per cent, the number of children studying in these institutions by 12.6 per cent, and the number of teachers teaching in these institutions by 26 per cent. The low growth observed in the number of general educational institutions should not mean that the material and technical base is not enriched. Over the past period, very serious work has been carried out to update the educational infrastructure. Over 3200 new school buildings in Azerbaijan have been renovated in the last 15 years. This indicator is more than 70 per cent of the total number of schools in the country. The most serious decline in the education system is observed in the field of vocational education. The number of vocational education institutions decreased from 176 in 1995 to 111 in 2017, and the number of students studying more than 3 times. The reason was a decrease in the interest in this field of education in Azerbaijan, which was in transition period. Although there is also a decrease in the number of secondary vocational education on all indicators, there was an increase observed in the number of higher



education institutions in the comparable period, by 3 times in 1995-2017, the number of students studying at higher education institutions by 60%, the number of students per 10,000 people by 17%, the number of students admitted to undergraduate studies by two times. The number of specialists graduated from higher education institutions also increased by 2 times. Increasing interest in the field of science in the country can be seen in the increased interest in doctoral and PhD programs. Significant increases for the comparable periods in both directions were recorded (Table 2). In 2018-2019 academic year, by organizing school preparation groups at the expense of the state budget in general education institutions, the level of involvement of 5-year-olds in education reached 75 per cent from 24 per cent in 2013. According to the Ministry of Education of the Republic of Azerbaijan, in the coming years this indicator will reach 90 per cent and cover all 5-year-olds in the future are the main targets.

Table 3. The share of education costs in the gross domestic product and the state budget of Azerbaijan (in manats).

	2012	2013	2014	2015	2016	2017	2018	2019
Gross domestic product	54743,7	58182,0	59014,1	54380,0	60425,2	70337,8	79797,3	
Expenses of the state budget	17072,0	19850,0	20063,0	16264,0	18495,0	17941,0	22731,6	25190,0
Government expenditure on education, total	1453,2	1437,7	1553,9	1605,1	1754,4	1742,7	2044,0	2274,6
Share of education costs in gross domestic product	2,7	2,5	2,6	3,0	2,9	2,5	2,6	
Share of education expenditures in the state budget	8,5	7,2	7,7	9,9	9,5	9,7	9,0	9,0

Source: The table is based on the data of the Ministry of Finance of the Republic of Azerbaijan and the State Statistical Committee of the Republic of Azerbaijan.

Based on statistical analysis, it can be said that there is a rapid growth of state care for the development of the education sector in Azerbaijan. Thus, the proportion of expenditures on education in the state budget increased by about 50% in 2018 compared to 2012 and by about 60% in 2019 (Table 3). There has also been an increase in the share of education expenditure in GDP, and in 2012-2014, the share of education expenditures in GDP increased from 7.2-8.5% to 9.0% in 2019. However, despite all this, the total public expenditure on education sector in Azerbaijan and the share in the gross domestic product is less than in other CIS countries and world countries (Table 4)

Table 4. Government expenditure on education, total

Countries	% of government expenditure	% of GDP
World (2015)	14,0%	4,8%
Azerbaijan (2016)	8,2%	2,9%
Japan (2016)	9,1%	3,5%
United Kingdom (2016)	13,9%	5,5%
Ukraine (2016)	12,4%	5,0%
Chile (2016)	21,2%	5,4%
Malaysia (2017)	21,1%	4,7%
Georgia (2017)	13,0%	3,8%
Moldova (2017)	18,3%	6,7%
Kazakhstan (2017)	11,4%	2,9%
Kyrgyz Republic (2017)	18,6%	7,2%
Uzbekistan (2017)	20,0%	6,4%
Pakistan (2017)	13,8%	2,8%



Iran, Islamic Rep. (2017)

20,0%

3,8%

Source: The table is based on the data of the World Bank. Available online:

https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS?most_recent_year_desc=false

Results, Conclusions and Recommendations

Taking into account the work carried out by the state above, it is possible to say that certain work has been done to formalize the legislation in the field of lifelong education in Azerbaijan, and the work within the framework of the state policy on adaptation of the work to be done and the normative base to be prepared to the advanced international experience in the field of lifelong education is continuing.

It is possible to draw conclusions from all this that the topic of lifelong education in Azerbaijan begins to be more active over time despite the fact that the concept of lifelong education has appeared relatively recently, its importance and necessity as one of the important elements of the national education model is fully manifested. Poor education and awareness in the lifelong education community in Azerbaijan is currently associated with a lack of interest in life-long education and lifelong learning activities, as well as poor participation in the process. The interest in lifelong learning will not be strong unless the public can be provided with extensive information on the work done in the field of lifelong learning, the activities and technologies in this direction, in other words, the existing opportunities. For this reason, it is important to inform and educate the whole society about the benefits of lifelong learning. The following should formulate the main directions of activities, strategic plans and programs to be implemented by the state in the direction of lifelong education in Azerbaijan:

- formation of a lifelong learning and learning culture in society
- increase lifetime education opportunities and reach these opportunities, improve lifelong learning, monitoring and evaluation system;
- formalization of the state policy on the solution of such issues as the need for a manpower with the technical skills required by the labor market.

References

- Abdulai Abukari. (2004). Transformations experienced by higher education and research institutions in European countries. First International Eurodocs Conference. Paris. June the 24th. P. 16.
- Aspin, D & Chapman, J. (2001). "Lifelong Learning: concepts, theories and values". Paper presented at SCUTREA, 31st Annual Conference, 3-5 July, University of East London. Available online: https://www.leeds.ac.uk/bei/Education-line/browse/all_items/125701.html
- Erhan Bağcı. (2011). LIFELONG EDUCATION POLICIES IN TURKEY IN THE PROCESS OF EUROPEAN UNION MEMBERSHIP. Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi, 30(2), 139-173. <http://dergipark.ulakbim.gov.tr/omuefd/article/view/5000035701>
- Colardyn, D. & Bjornavold, J. (2005). The learning continuity: European inventory on validating non-formal and informal learning (p.21) National policies and practices in validating non-formal and informal learning. Cedefop Panorama series, Thessaloniki; Luxembourg,
- DEVELOPMENT CONCEPT "AZERBAIJAN - 2020: OUTLOOK FOR THE FUTURE". (2012). Available online: https://president.az/files/future_en.pdf
- European Commission. Commission staff working paper: A memorandum on lifelong learning. (2000). Brussels. Available online: http://arhiv.acs.si/dokumenti/Memorandum_on_Lifelong_Learning.pdf
- Human Development. (2014). United Nations Development Programme. Baku. P. 134-156.
- Marjan Laal. (2011). Lifelong learning: What does it mean? Procedia - Social and Behavioral Sciences 28. (p.470 – 474). Published by Elsevier Ltd.
- Mesleki Eğitim ve Öğretim Sisteminin Güçlendirilmesi Projesi (MEGEP). (2006). Türkiye'nin başarısı için itici güç: Hayat boyu öğrenme politika belgesi. Ankara.
- National Strategy for the development of education in the Republic of Azerbaijan. (2013). Available online: <https://president.az/articles/9779>
- Osman Samancı, Ebru Ocakçı. (2017). Hayat Boyu Öğrenme. Bayburt Eğitim Fakültesi Dergisi. Cilt: 12 Sayı: 24, 711-722
- Zaitseva, O.V. Continuing education: basic concepts and definitions. (2009). Vestnik. №7. P.106



Türkiye hayat boyu öğrenme strateji belgesi. (2009). Available online:
<http://metek.meb.gov.tr/dosyalar/Turkiye.HAYAT.BOYU.%20OGRENME.STRATEJI.BELGESI.2009.doc>

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Social Development and Education Interaction

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Abstract

Education is one of the most important development criteria of countries. In the evaluation of development, it is not wrong to say that the place of education comes first, besides social, economic and political parameters. There are many reasons for this. Development and social development cannot be unilateral, that is to say, only economically. Today we can understand more. It is observed that all development parameters pass through the education chain and the related quality evaluations, considering the current conditions more clearly. Considering the development principles and expenditures on education, or rather the investments of all the countries of the world, it will be better understood what the development values of highly developed, intermediate developed and underdeveloped countries are. Because education expenditures mean more investments for the future for countries and countries can transfer their investments to other living sectors through education.

Key words: Education, Social development, Economy.

Introduction

Since social development is based on individual development, that is, the individual possesses the necessary equipment to keep up with the rising values in his age, the most important preliminary stage of social development depends on the position of the individual, on the level of education. It is not in vain for development economics to be among these new rising values. Education is the most important factor affecting development due to its development. Therefore, it can be said that there is a positive relationship between education and development. At this stage, it should not be forgotten that education of individuals should have a systematic that educates healthy individuals. It cannot be denied that healthy education can only produce healthy societies. This should be considered as a precondition for advanced contemporary society.

The concept of development constitutes a network that includes qualitative data as well as numerical data. The scale of the increase in the national income of the country presents data as a parallel indicator of the increase in welfare. Social development, economic development, or growth has a close meaning and the concept of growth, not only the increase in the national income in a country, while taking into account the development of social, political and cultural situations (Berber, 2006). Countries with slow pace of development are identified as underdeveloped countries. In this context, many economists evaluate why these countries have not developed yet. Underdeveloped countries have many similar features in political, social, economic and cultural terms. In general, per capita income of economically underdeveloped countries is lower than that of developed countries. Inadequate infrastructure, malnutrition, low quality education, high birth rates, inadequate health conditions, rapid population growth, traditional community structure, high unemployment rates, lack of confidence in political authority, and so on. Today, only economic factors are not taken into consideration in the evaluation of many developed or developing countries in terms of development. It is also evaluated in political, social and human factors. In this respect, the phenomenon of education has recently reached an important point in terms of economic development.

Education is not only perceived as a literacy phenomenon. The aim of the education in the economy is to raise people with high human capital. In this context, the importance given to education is increasing day by day. Countries now consider spending on education and labor as future long-term investments. In other words, they emphasize not only a monetary capital but also the importance of human capital. In an economy, not only monetary concepts machinery and equipment but also human factor have started to play an important role in



increasing productivity. This human factor is also seen as a high human capital, equipped with the ability to produce new products and technologies in the country.

In other words, they emphasize not only a monetary capital but also the importance of human capital. In an economy, not only monetary concepts machinery and equipment but also human factor have started to play an important role in increasing productivity. This human factor is also seen as a high human capital, equipped with the ability to produce new products and technologies in the country.

Therefore, education not only increases the knowledge level of people, but also contributes to the economic development of countries and their survival from competition with world countries. In general, there is a close connection between development and education. At the same time, while examining the development of countries, these phenomena and situations based on education are evaluated.

In addition to being a positive link between economic development, social development and education, education also has positive relations with political and cultural factors. Countries, especially developed countries, attach great importance to education. The importance given to education is not only manifested by individuals, but also by the importance given to the development of productive and innovative minds. In this way, it contributes greatly to the development of the products produced in the country, the production of new products and technologies as well as the development of the countries both economically and socially and politically.

Methodology of Research

In this study, qualitative data are examined and articulated with quantitative data. The data were analyzed and their equivalents in practice were evaluated and compared with qualitative data. Domestic and foreign written products were examined; The problematic topics that are concentrated around the subject are explained with numerical and indicative values. Comparison and analysis approaches were used.

Findings

Since the research subject with problematic and widespread impact is of great importance for our country, qualitative data has been explained with numerical values and new provision area has been created for the future. In this way, suggestions are made for the development of the country and the increase of the quality of manpower, and it is aimed to add human capital in parallel with the developing values. The biography of human capital, which is the multiplier of value in the development of the country, will reach the highest level with education has been revealed.

Development Concept and Domain

Development in a broader sense can be defined as any desired change and development in economic, social and political sphere in a society. Historically, development involves the reduction of human suffering and the mobilization of the potential to increase material well-being in countries that are less developed (Tok, 2010: 2). Historically, the concept of development is defined as an effort to reduce human suffering in less developed countries and to mobilize its potential to increase material welfare. There is a close relationship between the position of economic relations in social life and the usage of the concept of development in the historical process. In the periods when economic relations were considered as a part of social life, the concept of development was used in a wider context than the economic one; the content of this concept is limited to the economy. However, the fact that the development phenomenon is intertwined with non-economic areas and the backwardness that can be explained by the concept is dependent on a number of reasons other than economic factors; the concept can be explained not only economically but also in different fields. However, in this case, there are problems in its differences with close concepts. The concept of development in the real sense refers to



the concept of growth with the concept of structural change; The concept of industrialization is closer to the concept of modernization (Yavilioglu, 2002: 74).

Development is essentially a challenge. It becomes a voluntary intervention in economic and social life and eventually a race of wealth. This intervention is directed towards distribution relations as well as nature. Economic development with a human dimension is defined as the increase of living standards, in other words, the welfare level, that is, bringing the distribution of income to a more equitable form and taking more people from the growing cake. Even though the increase in the quantity of production and the development of its quality are of great importance, the fair distribution of the wealth resulting from this situation among the income groups living in that society is also of great importance (Source, 2011: 83).

The Lorenz curve is a geometric method used to measure inequality in income distribution. The Lorenz curve shows how much of the income goes to the population. The inequality in income distribution grows as the Lorenz curve moves away from absolute equality line. The ratio here is in the range of 0-1. When this coefficient approaches to 1, it shows that income injustice increases, and when it approaches 0, it shows that inequality in income distribution decreases. Gini coefficient is also used in creating the Lorenz curve (Top, 2006: 110-138).

Table 1. Gini Coefficients in Selected Countries

<u>Kyrgyzstan</u>	<u>Ethiopia</u>	<u>India</u>	<u>Egypt</u>	<u>China</u>	<u>Russia</u>	<u>Mexico</u>	<u>Turkey</u>	<u>Norway</u>	<u>England</u>
2009	2005	2005	2008	2005	2009	2010	2008	2013	2012
0,36	0,30	0,33	0,31	0,43	0,40	0,48	0,39	0,23	0,33

Source: Worldbank, 2014.

When the table above is analyzed, it shows the injustice of the countries' income distribution according to Gini coefficients. The extent of injustice in income distribution provides information on the level of development of that country. Injustice in income distribution decreases as middle-income countries go to high-income countries (Berber, 2006: 248). This can be explained by the Kuznets Inverse U Curve, which shows the relationship between Gini coefficient and per capita income. In his study published in 1963, S. Kuznets showed that the Gini coefficient increased to a certain point (threshold income level) as the per capita income level increased, and the gini coefficient decreased as the per capita income continued to increase (Source, 2011: 19). The table above confirms Kuznets' theory. Kyrgyzstan and income distribution in developed countries like Ethiopia and in underdeveloped countries such as Norway and the UK, is more justification than developing countries such as Mexico and Turkey.

Education

In general, development is an economic and social process. In this sense, the contribution of education to the high levels of development criteria of countries is quite large. Raising a large number of young people in line with the goal of a developing economy and constitution indicates that education has economic, as well as social, cultural and psychological impacts. These effects reflected in the economic situation in the country causes countries to be classified as underdeveloped or developed (Çakmak, 2008: 36).

As a result of these explanations, underdevelopment is accepted as the inadequacy of some basic skills rather than income poverty in a country. Literacy rate in a country, enrollment rate, teacher per student, spending shares allocated to education, etc. many cases are evaluated. However, the rates in the country are determined and the country is determined to be underdeveloped or developed. Today, it is clearly seen that education has the biggest share in the success of developing countries. Although the above mentioned criteria are the determinants of a country's development, it is not sufficient to have high numerical data alone. These rates are quite low in many less developed countries. However, human capital ownership in these countries is not sufficient. In developed



countries, these rates are high as well as the importance given to research and development. This means qualified labor force, that is, a country with high human capital (Baş, 1994: 136138).

The concept called human capital is defined as the sum of qualified labor, that is, the knowledge and skills possessed. In countries with intensive human capital, other production factors are used more efficiently and new technologies are developed. In this case, the human capital that underdeveloped countries generally have is not sufficient. This causes the backwardness of the countries (Atik, 2006: 6).

A production requires human capital as well as traditional production factors. Therefore, underdeveloped and developing countries that do not have sufficient human capital cannot produce certain goods even if they have sufficient unskilled labor and physical capital. However, developed countries, whose human capital is relatively stronger, can easily produce these goods that require advanced technology. For this reason, just like physical capital investments, an economy needs human capital investment (Özyakışır, 2011: 54).

Table 2. Turkey was evaluated with the enrollment rate at primary level but also in terms of income groups selected from senior country. Table 2 senior selected from the income group of countries at primary level and between the years 2000-2012 in Turkey shows a comparison of enrollment rates.

Jears	Italy	Japan	Poland	Portugal	France	Netherlands	Spain	New Zealand	Russia	Aver.	Turkey
2000	98,5	99,9	97,1	97	99	99,2	99,9	98,8	83,2	96,9	93,5
2001	98,7	99,9	97,1	97,5	98,5	99,2	99,8	97,1	83,3	96,7	95,2
2002	98,6	99,9	96,6	98,5	98,1	99,2	99,8	96,7	84,6	87,2	92,4
2003	98,5	99,9	96,1	98,5	97,8	98,3	99,7	97,8	94,2	97,8	90,9
2004	98,3	99,9	95,7	97,8	97,3	97,7	99,7	98,1	92,4	97,4	90,2
2005	98,5	99,9	95,2	97,8	98,5	97,7	99,6	98,9	91,5	97,5	89,6
2006	98,6	99,9	95,3	97,7	98,5	98,4	99,6	98,9	91,5	97,6	89,7
2007	98,6	99,9	95,2	97,7	98,6	99,2	99,7	99,2	92,4	97,8	90,1
2008	98,4	99,9	95,3	97,7	98,5	99,3	99,7	99,4	92,4	97,8	97,3
2009	97,7	99,9	95,9	98,5	98,5	99,5	99,8	99,3	93,4	98	96,4
2010	97,7	99,9	96,3	99,1	98,5	99,6	99,7	99,3	93,8	98,2	98,1
2011	97,2	99,9	96,3	98,6	98,2	99,6	99,6	99,1	95,3	98,2	98,4
2012	97,7	99,9	96,6	98,6	98,2	98,4	99,7	98,4	96,2	98,1	98,6

Source: Worldbank, TurkStat, (2014).

The return on investment in education has been made in terms of additional income provided by individuals as a result of education investment, and all of these calculations have shown that education investments are at least as efficient as physical capital investments. Since the differences in earnings after this training show the contribution of educated people to the national income as less than they are-they will also increase the efficiency of the less educated-in fact, the efficiency of educational investments is considerably higher than the average return of physical investments. As a result, the return on education investments may be higher than in developed countries where the loss of time of the people undergoing the education process is less valued than developed countries and the income differences of the skilled and educated people are higher than those of developed countries (Singer, 1971: 58). J. Coleman (2005) says that education is one of the criteria to be used to understand the level and degree of economic development of a country. In addition to economic indicators, the democratic structures of countries and their sustainability in a healthy way are among the development criteria (Tranc. Ergün, 2011: 8).

Economic development is possible with the development of technology that will increase production and the best and rational use of resources and capital. This is provided by educated and high human capital manpower. The



literacy rate of underdevelopment has also started to increase in the underdeveloped countries, but this does not contribute much to the economic situation of the country. The aim is to have a level of education that can read, evaluate and investigate. This situation emerges as the factors separating the less developed and developed countries. For example, many countries with oil, which is a very valuable natural resource, cannot benefit from these resources sufficiently because they do not have human capital power. On the other hand, Germany and Japan, whose natural resources are very limited, can make great economic progress by making the best use of their scarce resources thanks to human manpower (Çakmak, 2008: 37).

According to Öztürk (2005), education increases the development levels of the countries and also helps them to overcome the deficiencies that are shown as common characteristics of many less developed countries.

Accordingly, education;

- Increasing income level
- Ensuring fair share of income
- Increasing the productivity of labor
- Reduction in crime rates
- Ensuring political stability and social solidarity
- Democratization
- Ensuring low fertility and infant mortality rate
- Ensuring technology creation and ease of use

It has functions.

When we look at the above elements, the educational factor contributes to the deficiencies found in most underdeveloped countries. In this case, if the underdeveloped countries have not only the literacy rate but also qualified human capital with a quality education, it is inevitable that they will rise to the level of developed countries.

Education, Adult Model and Its Impact on Development

The main element of education and the main subject is human. The aim of the education and training system should be to train individuals who have reason, heart and pleasure. Turkey is now making splash in the education field, rearing up to a quality over quantity and it is time to perform the moves. The scientific and cultural accumulation that human beings have so far, dating back thousands of years, can sometimes be insufficient to explain what has happened. The scenarios of many experts who thought that the pointer was moving towards mechanization in human and technology interaction; it is seen as an ordinary, lively and up-to-date transmission of what is happening today. The advancement of high value-added technologies at the speed of light has forced all sectors to take serious steps towards transformation. This new period of singularity, expressed as the fourth biggest break in industrialization; biological, digital and physical in one body. Ongoing studies on artificial intelligence reinforce the claim that machines are coming to the stage of breaking the monopoly of human beings on learning and intelligence through what they learn from man (see Education Vision 2023).

The main objective of the 2023 Education Vision is; is to train qualified and moral individuals who are equipped with the skills of the age and the future and who can use this equipment for the sake of humanity, amorous to science, curious and sensitive to culture. We want to educate people who need the education profile and Turkey without putting forward the spirit of determination paradigm, direction, and strength of purpose that we create a universal pedagogy and philosophy. In this respect, human is the focal point of the 2023 Education Vision. Human-centered education approach brings along the values education as human skills and infrastructure. We can show the skillful activities of human resources as the most important whipping factor of production activities. However, this will lead to consulting services and environmental conditions. What will enable this is to channel the pedagogical infrastructure that will contribute to development into practical life supported by



formation. As it is seen that talented individuals are distilled from the generation of values as human centered and added to the service of the country as an added value, it requires an intensive guidance and exploration effort. The heavy burden of responsibility for our teachers plays a major role in this.

The table below reveals that developed countries are also countries that allocate more resources to education and health.

Table 3: Education and Health Indicators of Various Countries

COUNTRIES	Share of Public Education in Total Expenditure (%)	Public expenditure per student/ per capita (%)	Compulsory Education Period (Year)	Health Expenditures / GDP (%)	Average Life.
USA	14,76	23,89	12	15,3	78
CANADA	12,46	-	11	10,0	81
FRANCE	10,59	24,74	11	11,1	81
SWISS	16,33	29,49	9	11,3	82
INDIA	10,74	14,04	9	4,9	63
AFGHANISTAN	-	-	9	5,4	42
MEXICO	25,61	15,47	10	-	-
IRAN	19,98	17,80	8	-	-
ARJANTİN	13,97	15,81	10	10,1	75
JAPAN	9,50	22,31	10	-	-
TURKEY	-	14,35	12	5,6	75

Source: Cumhuriyet; Investigation of the Relationship between Education and Development, International Journal of Social Sciences Education, 2017: 3 (1): 14-32.

As seen from the table, falling public expenditure per student / per capita GDP percentage terms, Turkey ranks lower than any country outside India. The situation is similar in terms of health expenditures. As a result, the average life is lower than the average life in developed countries. the education indicators have emerged as a result of the resources allocated to the education sector and policies in Turkey are shown in the following table. development between European countries and Turkey, the country's education and training when considering factors such as human capital and the contribution to the biography of the indirect contribution of other sectors that education serves an important idea. It also shows that the leading writers of the literary world prioritize education through literary works, and write about the effects of this on the development and development parameters of the country. education is an important fact that needs to be addressed in all human-oriented living spaces. The future of the countries will build on this phenomenon. The most important force in the transformation of the digital age into income sources as human capital and becoming the means of superiority among the competition elements between countries is the technical development and the related innovation activities.

F. Kafka, B. Bichsel, F. Wedekind, H. Hesse and many other writers and thinkers, who are the leading names in Western literature, focused on the theme of education and education as the main thought in their works. It is seen that the importance given to human beings in the development of these people is inevitable and the fact that the force that will provide this is education. It is also worth mentioning J. J. Rousseau's Emile. Sickel related to child education considers all processes in terms of society, institution and development. Emphasizes that the way of social development and becoming the dominant force for the future is through education and especially the orientation-oriented education processes that should start in childhood. Rousseau is one of the most important philosophers who left its mark on the 18th century and guided society with his works and thoughts. Under the influence of the French revolution, philosophers and thinkers living in this century became architects of a period



called “Age of Enlightenment” both in France and around the world. Rousseau is a libertarian and egalitarian thinker and writer who influences, directs and enlightens society in this age with his thoughts and works. He has inspired many philosophers and thinkers with his views in both political theory and educational philosophy.

It is possible to see this close positive interaction and relationship between education and social development in Brief an Vater (Letter to my Father) which is one of the exemplary writings of the world-famous German writer and thinker Kafka (Kafka, 1994: 155). His efforts to become an individual through education and the processes of self-realization can be seen as added value to the future and development of the country. In this article, the relationship between education and children is witnessed as the most important multiplier of building codes of development. Expression attitude in the study is critical. After the culture of criticism, control and fear-oriented culture can only be overcome. The constructive effect of the culture of criticism is a prerequisite in terms of social development parameters in order to establish a culture of development-oriented values (see Cüceloğlu, 2018: 54). The establishment of the culture of democracy depends on this. The development of a culture of values instead of a control-oriented fear culture will be the driving factor of the social development in question. In this way, the pride and self-confidence of the student / child whose personality is not damaged will be complete and affect the social development as added value as a productive individual. The way to do this is through the restructuring of contemporary models that will be articulated in education in accordance with our social spirit biography. Özbek emphasizes the abandonment of obsolete models, which have difficulty in responding to contemporary problems in the context of the subject, and that the way of questioning, studying, criticizing and actively participating in decisions, taking responsibility, and taking responsibility as the basic elements of the culture of democracy depends on educational institutions. (Uzbek, 2004: 106). Time is old, refutes at the same time creates new fertility. Fulfills the judgment of time. Resisting the community, weak resources are exhausted is sentenced to extinction. One should be aware that critical reason is the most effective way to a healthy society.

Results

Education is the most important factor affecting development due to its development. Therefore, it can be said that there is a positive relationship between education and development. Today, only economic factors are not taken into consideration in the evaluation of many developed or developing countries in terms of development. It is also evaluated in political, social and human factors. In this respect, the phenomenon of education has recently reached an important point in terms of economic development. Education is not only perceived as a literacy phenomenon. The aim of the education in the economy is to raise people with high human capital. In this context, the importance given to education is increasing day by day. Countries now consider spending on education and labor as future long-term investments. development between European countries and Turkey, when considering factors such as education and the country's contribution to the human capital, education and other sectors of the indirect contribution to education is important to give an idea about the subject biography.

- The development of a culture of values instead of a control-oriented fear culture will be the driving factor of the social development in question.
- In this way, the pride and self-confidence of the student / child, whose personality is not damaged, will be complete and affect the social development as a productive individual as an added value.
- It should be kept in mind that the basic elements of the culture of democracy, questioning, scrutiny, criticism and active participation in decisions and the way to take responsibility depend on educational institutions.
- It should be the main hope of education systems where the power of the teacher is a creative factor that should never be forgotten.
- It is essential to ensure the growth of the human model, which takes place beyond the 4.0 industrial revolution, not producing and producing new visions in production.



References

- Atik, H. (2006), *Beşeri Sermaye, Dış Ticaret ve Ekonomik Büyüme*, Ekin Kitabevi, Bursa.
- Baş, K. (1994), Eğitim, Kalkınma Gelir ve Doğurganlık İlişkileri: Mersin Örneği, *Ankara Üniversitesi Siyasal Bilgiler Fakültesi Dergisi*, C: 52, S:1.
- Berber, M. (2006), *İktisadi Büyüme ve Kalkınma*, Derya Kitabevi, Trabzon.
- Cüceloğlu, D. (2018). *Öğretmenim Bir Bakar Mısın? Öğretmenin Gücü Üzerine*, Final Yayınları: İstanbul.
- Çakmak, Ö. (2008), Eğitimin Ekonomiye ve Kalkınmaya Etkisi, *D.Ü Ziya Gökalp Eğitim Fakültesi Dergisi*, S: 11.
- Ergün, M. (2005), Eğitim ve Kalkınma, Dicle Üniversitesi Sosyal Bilimler Araştırma Merkezi, Sosyal Bilimler Sempozyumu.
- Kafka, F. (1994). *Babama Mektup*, Taşrada Düğün Hazırlıkları, (Çev. Kamuran Şipal), Cem Yayınevi: İstanbul.
- Kaynak, M. (2011), *Kalkınma İktisadı*, Gazi Üniversitesi, Ankara.
- Milli Eğitim Bakanlığı, 2023 Eğitim Vizyonu Felsefesi, MEB yayınları, 2019.
- Özbek, Y. (2004). *Sağlıklı Eğitim Sağlıklı Toplum*, Çizgi kitabevi: Konya.
- Öztürk, N. (2005), İktisadi Kalkınmada Eğitimin Rolü, *Sosyo Ekonomi Dergisi*, S:1.
- Özyakışır, D. (2011), Beşeri Sermayenin Ekonomik Kalkınmadaki Rolü: Teorik Bir Değerlendirme, *Girişimcilik ve Kalkınma Dergisi*, S:6.
- Singer, H. W. (1971), *Economic Policy for Development*, Çeviren: Selim Erdoğan.
- Top, C. (2010), Küresel Krizin Gelir Dağılımı ve İşsizlik Üzerine Etkileri, Ege Üniversitesi Sosyal Bilimler Enstitüsü İktisat Anabilim Dalı, Yüksek lisans Tezi
- Yavilioğlu, C. (2002). Geri Kalmışlık Olgusu ve Ekonomistik Kalkınma Teorileri, *Cumhuriyet Üniversitesi İ.İ.B.F Dergisi*, C:3, S: 2.
- Woodhall, M. (1987). *Eğitimde Maliyet Analizi*, Çeviren: Şakir Çankırı, Worldbank.
- Worldbank (2006), ‘‘Public Expenditure Review’’.
- www.oecd.org
- www.worldbank.org
- www.maliye.gov.tr
- www.tuik.gov.tr
- www.meb.gov.tr
- www.tubitak.gov.tr
- <http://epp.eurostat.ec.europa.eu/>



Relationship between Morphological Features and Lower Limb Explosive Strength in Boys

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Abstract

The aim of this study was to investigate the correlation between morphological characteristics and lower limb explosive strength. The sample consisted of 100 male respondents aged 4 to 18 years. Variables was composed of 12 anthropometric characteristics, percentage of body fat and vertical jump. For establishment the relationship between morphological features and lower limb explosive power Pearson's correlation coefficient was calculated. The result indicated that there is a statistically significant positive correlation between the morphological characteristics that are predisposed by regular growth and development (body height, arm length, leg length, etc.) and the explosive strength. Also, it shown statistically significant negative correlation between the variables that are indicators of wellbeing (fat percentage, skin folds) and motor performance. It can be concluded that boys who are overweight and obese reported poorer results in motor skill. Therefore, it is very important for children to be physically active to maintain normal health status.

Keywords: Anthropometric characteristics, Children, Motor abilities, Physical activities

Introduction

Morphological features (i.e. somatotype and body configuration) have an essential part in the performance of numerous physical actions (Saha, 2015). Somatotyping has a quite long practice in human biology. In the meantime of the early growth of Sheldon's somatotyping system, investigators have researched the association of somatotype and body composition to physical performance (Raudsepp and Jurimae, 1996). A youth finishes dissimilar stages of motor actions which be influenced by mechanic demands and morphological features (Bjelica, Gojković, Pržulj, Cicović and Joksimović, 2018).

The quantification of muscular ability seems to be of main significance in the identification of the prospective for motor enactment. Between experts, the agreement is that muscular power (or "explosive strength" as frequently converted into practice) is greatest significant for success in numerous everyday lifespan jobs as well as in physical activities. But muscular power is determined by a several of aspects, amongst them neuro motor (e.g., variations in coordination), biomechanical (e.g., muscle contraction physiognomies) plus somatotype and body configuration (Liebermann and Katz, 2003).

Vertical jump is frequently used as an manifestation for the power of the lower limb or explosive leg power (Chu, 1996; Moir, Button, Glaister and Stone, 2004; Richards, 1968; Shellock and Prentice, 1985). Vertical jumping skill is an significant essential ability for many physical actions. Vertical jump height is a dimension that trainers, health care experts, and strength and conditioning specialists regularly practice as an objective functional dimension (Waggener, Barfield and Sessoms, 2002). Papers concentrated on vertical jump concerning



performances propose distinct tests of characteristics for different age groups, followed by morphological features which may essentially affect the performances (Haguenauer, Legreneurm and Monteil, 2005), as well as gender and genetic indicators (Okely and Booth, 2004). Accordingly, countermovement jump without arm swing is commonly used test for define an explosive strength, also lower limb explosive strength is a very important fragment of basic motor abilities that indicates and is in relation with health and quality of life of children. Lepas, Papp, Ihasz, Nagyvaradi and Zrnzevic (2019) in their study concluded that boys who accomplished superior outcomes on measurements of motor abilities are additional physically active, filled of energy, feel well, spend extra period with associates and adore the care of their earls.

So, the objective of this study was to investigate the correlation between morphological features and lower limb explosive strength between boys from early age till adolescent age. From the objective of the study the null hypothesis are appointed. The first hypothesis is that there is a statistically significant positive correlation between anthropometric characteristics that reflect the proper growth and development in accordance with the age and vertical jump in all age groups of respondents. Another hypothesis is that there is a statistically significant negative correlation between the variables which are indicators of obesity (skin folds and body fat percentage) and the vertical jump.

Method

According to the purpose of this study, the investigation was provided on population of boys from early age in kindergartens to adolescents in high schools. Therefore, the sample consisted of 100 male respondents aged 4 to 18 years. The research was conducted in kindergartens and schools from city of Zagreb. All children included in investigation were healthy and parental permissions were collected. The measurements were carrying out in morning hours always by the same educate experts from Faculty of Kinesiology. Variables included in this study was composed of 12 anthropometric characteristics (BH-body height, AL-arm length, LL-leg length, ED-elbow diameter, AD-ankle diameter, SW-shoulder width, BW-body weight, UC-upper arm circumference, LC-lower leg circumference, BS- back skin-fold, US- upper arm skin-fold, SS- suprapatellar skin-fold), percentage of body fat (BF%) and vertical jump without arm swing on platform (CJ-Countermovement Jump). All collected data was analyzed by program Statistica 13.0. For all variables descriptive parameters were calculated (arithmetic mean, minimal results, maximal results, standard deviation). On behalf of normality of distribution Kolmogorov-Smirnov test was provided. In place of founding the connection between morphological features and lower limb explosive strength Pearson's correlation coefficient was calculated.

Findings

In attendance to investigate the relationship between morphological characteristics and motor abilities, precisely lower limb explosive strength, in boys and adolescents the measurements in kindergartens and schools were provided and the following results were collected. The obtained outcomes were analyzed and showed in Tables 1. to 5. Descriptive parameters show the highest range of results in variable *body height*, and the lowest standard deviation in variable *suprapatellar skinfold* (Table 1.). The minimum jump was 12,07cm, and the maximum countermovement jump was 50,77cm. In this table it is not detailed, but from results of descriptive parameters for specific age it is clear that with age the skinfolds of respondent's drastic extent.

Table 1. Descriptive parameters of morphological features and vertical jump

Variables	Valid N	Mean	Minimum	Maximum	Std.Dev.
BH	100	150,16	108,30	196,50	24,66
AL	100	63,42	44,40	84,40	11,26
LL	100	85,11	55,60	109,50	16,11
ED	100	59,39	37,00	86,00	11,82
AD	100	65,69	53,00	83,00	7,17
SW	100	22,37	13,60	35,20	5,64



BW	100	47,09	17,28	123,64	22,22
UC	100	25,31	15,60	39,40	5,96
LC	100	33,12	21,00	47,80	6,53
BS	100	9,71	4,00	29,00	5,99
US	100	11,54	5,00	27,00	5,73
SS	100	10,70	4,67	25,33	4,64
BF%	100	22,58	11,69	45,45	7,86
CJ	100	29,98	12,07	50,77	9,74

Table 2. shows correlations of morphological features and vertical jump of all respondents (second column) . Simultaneous shows separately correlations of all measured variables in boys from kindergarten aged 4 to 6 years. From marked correlations for all subjects it can be seen that all anthropometric characteristics, except skinfolds and body fat %, are significantly positive connected with vertical jump. That can be discussed that accordingly with age and regular development the boys can expressed their motor ability as it is expected, the motor ability improves. Moreover in young boys aged 4 and 5 there is no statistical significantly connections because in that age the movement coordination and motor knowledge of vertical jump is not clear yet. In age of 6 the connections are marked and in that period boys who have more body fat % and back and upper arm skinfold performed purer result in vertical jump.

Table 2. Correlations of morphological features and vertical jump of all respondents and separately boys from kindergarten

Variables	CJ-all	CJ-age4	CJ-age5	CJ-age6
BH	0,85*	0,03	0,36	0,10
AL	0,84*	-0,04	0,11	-0,41
LL	0,86*	-0,39	0,27	0,54
ED	0,75*	-0,28	0,25	0,58
AD	0,72*	0,62	0,28	-0,13
SW	0,79*	-0,01	0,25	0,35
BW	0,70*	0,30	0,42	-0,28
UC	0,49*	0,07	0,22	-0,22
LC	0,59*	0,08	0,59	-0,34
BS	0,11	0,19	0,51	-0,58*
US	-0,08	0,38	0,14	-0,77*
SS	-0,24*	0,06	0,51	-0,21
BF%	0,11	0,33	0,25	-0,70*

*-statistically significant correlations on $p \leq 0,05$

Furthermore, the similar results are presented for boys in the age of seven (Table 3.) It can be seen that there is positive correlations of all anthropometric characteristics with vertical jump. That is expected because it is normal that subject who is taller and have longer arms and legs, and stronger body jumps higher. But simultaneously, boys who have higher value of back skinfold, upper-arm skinfold, suprapatellar skinfold and body fat % have negative associations with vertical jump. That means that subject who are overweight presents weaker outcomes in basic motor abilities, precisely explosive strength.

Table 3. Correlations of morphological features and vertical jump of boys younger school age

Variables	CJ-age7	CJ-age8	CJ-age9	CJ-age10
BH	0,61	-0,28	-0,21	0,26
AL	0,90*	-0,60	0,08	0,25
LL	0,43	-0,44	-0,38	0,36
ED	0,90*	-0,49	-0,18	-0,03
AD	0,76	-0,19	0,26	-0,06



SW	0,93*	-0,51	-0,27	0,10
BW	0,63	-0,48	-0,18	0,05
UC	0,47	-0,56	0,06	-0,18
LC	0,53	-0,27	-0,59	-0,68
BS	-0,27	-0,69*	-0,24	0,04
US	-0,27	-0,55*	-0,24	0,06
SS	-0,16	-0,76*	-0,10	-0,27
BF%	-0,28	-0,60*	-0,24	0,12

*statistically significant correlations on $p \leq 0,05$

Consequently, with age of respondents the statistically significant connections between morphological features and vertical jump are more expressed. From results of correlation analysis showed in Table 4. and Table 5. it can be seen that for boys from 11 to 14 years of age, who are in pubertal stage, is very important their physical condition to express great result in explosive strength of lower limbs. The same report goes for adolescents (Table 5.). In that period of life, there is no matter if the subject is higher and their body and bones are developed by age, it is more important that they have regular body mass. For the same reason, boys and adolescents who are obese and overweight accomplished purer results in their motor abilities which indicate bad physical condition and cautions of a high risk of cardiovascular disease and diabetes in later age.

Table 4. Correlations of morphological features and vertical jump of boys middle school age

Variables	CJ-age11	CJ-age12	CJ-age13	CJ-age14
BH	0,60	0,45	-0,50	0,19
AL	0,41	0,58	-0,61	0,10
LL	0,51	0,82*	-0,44	0,43
ED	0,46	-0,69	-0,94*	-0,46
AD	0,23	0,24	-0,36	0,07
SW	0,27	-0,21	-0,69	-0,21
BW	-0,09	-0,24	-0,87*	-0,50
UC	0,02	0,23	-0,49	0,23
LC	-0,08	-0,04	-0,80	-0,42
BS	-0,53*	-0,31	-0,51*	-0,61*
US	-0,51*	-0,47	-0,47	-0,67*
SS	-0,56*	-0,60*	-0,72*	-0,47
BF%	-0,44*	-0,49	-0,35	-0,61*

*-statistically significant correlations on $p \leq 0,05$

Table 5. Correlations of morphological features and vertical jump of boys high school age

Variables	CJ-age15	CJ-age16	CJ-age17	CJ-age18
BH	-0,24	0,28	-0,01	-0,62
AL	0,07	-0,17	-0,23	-0,77
LL	0,08	0,26	0,12	-0,58
ED	-0,17	-0,69	-0,29	-0,74
AD	-0,14	-0,40	-0,20	-0,69
SW	-0,80*	0,51	0,01	-0,80
BW	-0,61	0,90*	-0,38	-0,58
UC	-0,51	0,52	-0,20	-0,28
LC	-0,38	0,51	0,40	-0,36
BS	-0,70*	0,17	-0,31	-0,64*
US	-0,56*	-0,11	0,11	-0,32
SS	-0,54*	-0,53*	-0,28	-0,58*
BF%	-0,55*	-0,01	-0,11	-0,13

statistically significant correlations on $p \leq 0,05$

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According to the findings of this research the hypothesis can be confirmed. There is a statistically significant positive correlation between anthropometric characteristics that reflect the proper growth and development in accordance with the age and vertical jump in all age groups of respondents, also there is a statistically significant negative correlation between the variables which are indicators of obesity (skin folds and body fat percentage) and the vertical jump.

Results, Conclusions and Recommendations

The results in this study indicated that accordingly with age and regular growth and development the boys can express their motor ability as it is expected, the motor ability improves. From this statement it can be concluded that respondents who are mature can jump higher i.e. they have a better developed explosive power because they are older, taller, and stronger which is normal. But also in the direction of results of this research subjects from the age of 6 (primary school) till adolescents stage (high school) who have higher values on measurement in body fat %, back skinfold, upper arm skinfold and suprapatellar skinfold performed purer result in vertical jump. On behalf of these results it can be concluded that boys and adolescents who are obese and overweight offerings lower effects in basic motor abilities, accurately explosive strength. Saha (2015) similarly investigate the influence of morphological characteristics on explosive power. His results shown that vertical jump is significantly positively correlated with skeletal muscle %, lean body mass, mesomorph and ectomorph somatotype; but also body mass, body fat % and endomorph somatotype are significantly negatively correlated. From the given results Saha also concluded that somatotype and body composition variables are important factors in determining leg explosive power. Furthermore, Marta et al. (2013) examine the impact of body fat and somatotype on explosive strength in the prepubertal children. The data of their investigation applaud that somatotype has a large effect on explosive strength. Specifically, endomorphs have a negative influence on vertical jump gains while mesomorphs have a significant positive influence and that should not be ignored because the majority of body fat can be essential aspects affecting physical condition and normal development. The relationship between anthropometric characteristics and motor abilities of boys from first grade of elementary school investigate Rodić (2012). In his study obtained result showed negative relations between body mass and explosive strength. From that outcome he also concluded that anthropometric features of boys are very essential for the execution of motor abilities. Agreeing to the results of this investigation it can be concluded that for proper physical condition, healthy growth and development it is necessary to regularly monitor morphological features of children. In that period of life, from earliest age till adolescence, it is very important for children to have regular body mass and somatotype to prevent the occurrence of coronary heart disease and diabetes.

Recommendation for further studies is to investigate the relationship between morphological characteristics and other basic motor abilities such as coordination, speed, flexibility, balance and precision. Also it would be interesting to provide the measurements on girls from kindergarten till high school and compare their performance in motor tasks regarding to anthropometric characteristics, specially body fat% and skinfolds. In that case there would be covered the pattern of all children and the entire motor space. Those findings would be of great importance for parents, educators, teachers and trainers who must be a motivating factor in today's era of digitalization. The children must daily exercise and have proper nutrition to be healthy people, and not to spend time sedentary in front of screens.

References

- Bjelica, B., Gojković, D., Pržulj, R., Cicović, B., & Joksimović, M. (2018). Connection between morphological characteristics and vertical jump stiffness of Female volleyball players. *Int. J. Phys. Ed. Fit. Sports*, 7(1), 17-23.
- Chu, D.A. (1996). *Explosive power & strength*. Champaign, IL: Human Kinetics
- Haguenauer, M., Legreneur, P., & Monteil, K.M. (2005). Vertical jumping reorganization with aging: a kinematic comparison between young and elderly men. *Journal of Applied Biomechanics*, 21, 236-246.



- Lepes, J., Papp, R., Ihasz, F., Nagyvaradi, K., & Zrnzevic, N. (2019). Health related quality of life and its relation to motor abilities of early school age children. In Bjelica, D., Popovic, S. and S. Akpinar (Eds.), *16th Annual Scientific Conference of Montenegrin Sports Academy "Sport, Physical Activity and Health: Contemporary Perspectives"*, 4 - 7 April 2019, Cavtat, Dubrovnik – Croatia (pp. 36). Podgorica: Montenegrin Sports Academy & University of Montenegro.
- Liebermanna, D. G., & Katz L. (2003). On the assessment of lower-limb muscularpower capability. *Isokinetics and Exercise Science*, 11, 87–94.
- Marta, C. C., Marinho, D. A., Barbosa, T. M., Carneiro, A. L., Izquierdo, M., & Marques, M. C. (2013). Effects of Body Fat and Dominant Somatotype on Explosive Strength and Aerobic Capacity Trainability in Prepubescent Children. *Journal of Strength and Conditioning Research*, 27(12), 3233–3244. doi: 10.1519/JSC.0000000000000252
- Moir, G., Button, C., Glaister, M., & Stone, M. (2004). Influence of familiarization on reliability of vertical jump and acceleration sprinting performance in physically active men. *J Strength Cond Res*, 18(2), 276-280.
- Okely, A.D., & Booth, M.L. (2004). Mastery of fundamental movement skills among children in New South Wales: prevalence and sociodemographic distribution. *Journal of Science and Medicine in Sport*, 7, 358-372.
- Raudsepp L, & Jurimae T. (1996). Somatotype and physical fitness of prepubertal children. *Collegium Antropologicum*, 20(1);53-59.
- Richards, D.K. (1968). A two-factor theory of the warm-up effect in jumping performance. *Res Q*, 39, 668-673.
- Rodić, N. (2012). Relationship between anthropometric characteristics and motor abilities of boys in the first grade of elementary school. *Sport Science*, 5(2), 24-27.
- Saha, S. (2015). Morphological Characteristics and Explosive Power of Athlete and Non-Athlete. *Arch Exerc Health Dis*, 5(1-2), 354-358. DOI: 10.5628/aeht.v5i1-2.174
- Shellock, F.G., Prentice, W.E. (1985). Warming-up and stretching for improved physical performance and prevention of sportsrelated injuries. *Sports Med*, 2, 267-278.
- Waggener, G.T., Barfield, W.R., & Sessoms, E.D. (2002). Prediction of maximal vertical jump height, revisited. *Int Sports J* 6,107.



Strategy for Improving The Training Curriculum

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Abstract

Reform in education requires the national-moral characteristics, traditions, national mentality of our people and the efficient use of progressive ideas in this field in Azerbaijan for many years. Priority areas should be identified by deeper study of existing problems to implement what they are saying. According to the above-mentioned provisions, education reform is solved step by step. At the first stage (1999), organizational work has been done to create a normative legal economic and information base of the new education system that meets the modern requirements, ensuring citizens' right to education. Establishment of organizational, legal, regulatory, personnel, financial, logistical, scientific, educational and methodological and information support for the solution of the problems that provide for socio-economic stability of the education sector and the implementation of large-scale reforms in the second stage covering short-term prospective; the management model is expected to be created.

Keywords: Education, Socio-economic, Learning-process, Reform

Introduction

It is known that one of the main purposes of the education is to bring up highly developed persons on highly level, having got scientific potential, being competitive. Nowadays the personality aspected education policy focuses this factor a bit more. Literally the science about the upbringing, that is to say, pedagogy meanwhile is teaching and new method. Education and improvement deal with definite categories. The teaching process which is the mutual expedient activity of the teacher and learner is also the basic means for upbringing and improve from psychological view point. The maintenance, essence, principles, methods and organizing forms are defined by the didactics. Didactics is a Greek word meaning "I am teaching". This word firstly was brought to the science by the German pedagogue V. Ryashke (1571 -1635) and the Czech pedagogue John Amos Comenius (1592-1670). Didactics is teaching process which has inside contradictions. The main point is that those contradictions have got motive power. For example: in the contradictions that arise among the opportunities of those who learn the complicated demands regularly the teaching always outstrip the mental improvement.

In the field of independent state building to bring up highly intellectual leveled personalities is one of the important duties of the pedagogues working in education field. For this purpose on the state program level serious reforms are carried out in the education field. The successful solution of the problem having national importance depends using efficiently from the opportunities of the teaching. The teaching has broad conception, and the quality, the degree of its being carried out, is defined by the formation of the knowledge, skills and habits in those who are taught. Knowledge is the main criterion of the mind, skills and habits are the basic parameters of the mind. The teaching has different steps, that is why the teachers must keep the succession of mastering of any theme in the focus. It can be said that the steps for to make the learners to master teaching themes for any subjects which are taught.

In pedagogical literature there are different opinions about the rules and objective laws. These rules characterize the rules of the teaching according to the mutual relations among the teaching elements (the activity of teacher and student, the theme and duties of the teaching, material and technical, spiritual- psychological environment)



For example, rising of the mastering while the degree of the variety of teaching methods increases applied depending on the features of the teaching theme is called objective law. As a rule it is expressed as following: the rule of the dependence of the mastering from the variety of the teaching methods. Without knowing the rules of the teaching it would be impossible to master the knowledge, skills and habits, it would be difficult to secure their improvement from psychological view point. From other side it is necessary to know that the principles of the teaching are based just on these rules.

“Principle” is Latin word, it is used in the meaning of “basic demand”. The quality of the teaching demands on the rightly usage of its principles. The didactic ideas which give a way to set up the joint activity of the teacher and learner efficiently are called teaching principles. The opinions of the pedagogues are different in what demands to call teaching principles and to define their quantity. To analyze the problem from view point of characterizing the principles of the teaching is according to the reality of the day. It includes the connection of the teaching with life, to establish acceptable environment for the teaching/ taking into consideration the individual features, collaboration in teaching, consciousness and activity, scientific character in teaching, educative feature of the teaching, obviousness in the teaching, usage of the different methods and strengthening of the knowledge and skills. Students’ mastering to definite science, skills and habits under the leadership of the teachers according to the stages of teaching, their bringing up and improving according to the national-patriotism are called the methods of teaching.

One of the functions of the leadership to the pedagogical process is the organization of the supervision to the teaching and cognition activity of those who learning teaching. During the supervision in teaching process the teacher demonstrates his humanist attitude, democratic approach by defining how much rightly the learner answered the question. The teacher’s reaction to the mistakes of the students during the teaching process must be extremely sincere. The observation of the lasting years shows that in most cases the teachers who can’t endure the insignificant mistake display nervousness. During the supervision in the teaching the teacher must be kind and must regularly direct the learners to think about the theme, must inform them about understanding, thinking and working independently including to define their mistakes. The theme of the supervision changes by depending on the character of the subject that is taught, and on the lessons. For example: the teacher who wants to discover the skills on the application of the theoretical knowledge on the practical works organizes the experiments. The supervision in the teaching discovers the inward world of the learner. This time the teacher must pay attention to the learners speech skills, their way of judgment, their skill on analyzing ability of comparison, their logical speaking and other qualities. The supervisions become current/ thematic, dovru. result and in testing forms.

The valuing of the success in the teaching is the criterion defining in what degree the essence of the pedagogical process answer to the interests and needs of consumers/ According to our opinion, electronic accounting machines, the broad application of the test programs to the teaching process, establishing of the education on the new technology, will be able to liquidate such negative cases. During the valuing the knowledge, skills and habits the teacher must take into consideration some pedagogical needs in unity. The purpose, duties, theme and methods of the education have been collected in the organizing system of the teaching. The lesson that has the lasting developing way in that system takes a leading place. The lesson which is the main organizing form of the teaching, is characterized by its important features. The mutual activity at the lesson are characterized with each other. So, during the lesson the ways of the activity of the students under the teacher’s leadership changes. It is necessary to look for the essence of the internal mechanism of the structure of the lesson just in there. If the pedagogical needs for each lesson are carried out that lesson has positive result. Alongside by defining didactic structure at the lesson, the education giving, upbringing and improving aspects must be carried out in unity.



In Azerbaijan to establish new educational system according to the independence and our national ideology, basing on universal values, democratic and worldly principles, improving of its managing, adapting it to the democratic rules depends on the strengthening of state-public features, carrying out self- government principles.

We think about regulation of our activity according to the democratic principles, that is to say about each step we take. That is why not depending their profession each student must perfectly know the forms and methods, the organizing rules of the teaching, and must be active independently according to it/ (2. Page 7)

During independent state building one of the important duties of our pedagogues working in the education field is to bring up highly intellectual personalities. For this purpose serious reforms are carried out in the education on the level of state program. In the pedagogical literature there are different opinions about the rules and objective laws about the teaching. This problem was solved properly by the professor N. Kazimov. He characterized the rules and objective laws of the teaching according to mutual relation between the elements of the teaching (the activity of teacher and student, the theme and duties of the teaching, material and technical, spiritual- psychological environment) .

For example, rising of the mastering while the degree of the variety of teaching methods increases applied depending on the features of the teaching theme is called objective law. As a rule it is expressed as following: the rule of the dependence of the mastering from the variety of the teaching method.

Without knowing the rules of the teaching it would be impossible to master the knowledge, skills and habits, it would be difficult to secure their improvement from psychological view point. From other side it is necessary to know that the principles of the teaching are based just on these rules. Principle” is Latin word, it is used in the meaning of “ basic demand”. The quality of the teaching demands on the rightly usage of its principles.

To analyze the problem from view point of characterizing the principles of the teaching is according to the reality of the day. It includes the connection of the teaching with life, to establish acceptable environment for the teaching/ taking into consideration the individual features, collaboration in teaching, consciousness and activity, scientific character in teaching, educative feature of the teaching, obviousness in the teaching, usage of the different methods and strengthening of the knowledge and skills. Professor N. Kazimov defined the teaching methods as following: Students’ mastering to definite science, skills and habits under the leadership of the teachers according to the stages of teaching, their bringing up and improving according to the national-patriotism are called the methods of teaching.

The reform carried out in the education field demands us to use efficiently from the national-spiritual features, traditions of our people, from the progressive ideas which had been formed in Azerbaijan in this field. In order to realize all what had been mentioned above the existing problems must be studied and priority fields have to be defined. Just according to the thesis mentioned above the education reforms, the improvement of teaching-training process are solved in some steps. In the first stage the organizing affairs related with to establish the normative/ legal economical and information base of the education system corresponding to the modern needs, securing the rights of each citizen to get education. The human beings master the knowledge of the mankind with the help of the teaching which is one of the basic activity/ the teaching activity is regulated in the mutual relations with the psychological processes. Altogether in the improvement of the psychological processes (attention, perception, memory. Imagination, thinking, feelings, expression) the teaching activity plays great role. As a result of the carried out psychological and pedagogical researches it has been proved that different from other psychological processes thinking has more superiorities in mastering the teaching materials consciously and in perceiving its essence. From the view point of the integration the world education system the occurring



approaches, the gained achievements as a result of the teaching activity in the carried out reforms can't be denied.

The personality is formed in concrete life environment in his teaching and training. In this case one of the main purpose and duty of the teaching is to bring up personality corresponding to the needs and demands of the independent Azerbaijan state.

Optimizing of the teaching process, its scientific organization, increasing its effect, intensification of the students activity causes to the quality of the education. By achieving the decrease of the difference between the development process of the people living in the society and the spiritual- psychological and intellectual levels of the people it is possible to establish civil state. Having education strategic influence is related with above mentioned factor. The teachers who teach at the training which was organized related with the new teaching methods use their practical skills. It is important to strengthen the achievements which were valued as the first step, on the republic scale. In the process of carrying out the education reforms the purpose, principle, legal base- which were on the state program must be reflected.

If we analyze the new teaching methods according to their theme the main attention must be paid to pedagogical ability of the teacher to teach the knowledge, skills and habits. From the meaning and essence view point the teaching conception serves to the rules of the choice and application of the new methods by keeping their value. Without approaching the learner as the personality it is difficult to consider him the comprehensive being. By using authoritarian attitude it is impossible to appreciate the essence of the teaching. The second stage embraces short-termed perspiciveness it is supposed to solve the problems providing the social- economical stability of the education field, the organization of legal, normative, cadre, material- technical, scientific, educational- methodical and informative guarantee, and to set up new management model. In the third state all the execution mechanism of the all events meant in the program have been reflected.

It has been planned to carry out some events on the level of the program. Providing of interactiveness in the teaching, the important steps of the teachers in the direction of the innovation carried out in the education is estimable.

The efficiency of the usage of the new methods in the teaching depends on the properly organizing of teacher training. To increase the quality level of the education influence to the essence of subjective and objective conceptions and resulted the collaboration having get new meaning. The experiences of the long years show that the individual having highly thinking ability became passive being lost in the uncertainty psychology. Only the active teaching methods may liquidate this. The application of the active teaching in the pedagogical process is one of the main purposes of the education reform. These methods cause to increase the quality of education have been mastered by the teachers. During the active teaching process the teacher is like a guide, and the learner is like an investigator. The quality parameter of the mentioned technology has been accompanied by the intensification of the thinking activity.

Logical thinking is the ability of comparison, classification and systematizing. Comparison is to define the similar and different features among the things and events. Generalizing is uniting the things and events according to their common and important features. Classification is to classify the things and events for certain features. Systemizing is to replace the objects according to certain rules, to define succession among them.

The creative thinking is the ability of creating the innovation. Creative thinking is the quick-wittedness/ originality of the mind, curiosity to know everything. The quick-wittedness is defined with the number of the



created ideas in some defined time. Curiosity is to accept the innovation and to be interested with everything. Critical thinking is the ability of to appreciate and distinguishing the accepted information. Recently a new pedagogical conception- motivation is often used in teaching. Motivation is the reason that causes activity in the learner. The role of the motivation in the teaching process is to interest, to draw the attention of the learner. In order to carry out active teaching methods firstly the problems must be discovered, the hypothesis must be put forward, the organization of the research must be applied.

There are some ways of creating active teaching. The teacher must carry out those demands in the teaching process. It includes to liquidate the problematic situation, activity of researching, drawing to encourage, to provide the situation for to get knowledge independently. The teacher must be intellectual in order to be able to teach the relation and attitude between the things and events. This process is systematic and is defined by the motives of the direction of human activity. The person who leads to the process of the ruling the pedagogical process must be aware of regulating the brain activity. Up present time the scientist didn't pay attention to this point. During the valuing the knowledge, skills and habits the teacher must take into consideration some psychological and pedagogical needs in unity. The behavior of the learner, the theme of the knowledge, defining of marking objective and fair during the academic are conditioned. Depending on the level of the success it is possible to define the teacher's work. The purpose, the theme, the methods of the education have been collected in the organizing system of the teaching. In that system the lesson takes the leading place. The type and structure of the lesson is related with each other. In the structure of the lesson there are external and inside features. In all, in the higher educational institutions the joint activity of the teacher and the students the experiences, physical preparation are one of the important factors. During the period in which we are integrating the world education system there arises need for to use new technologies in the teaching. The relations between the teacher and the students, the democratic opportunities given to the students during the teaching process broaden their independently activity. The new technologies are the demand of the period, that is why we must use them. From other side, while replacing the national value, the achievements that we had got from the historical experience we must be attentive, and must regulate everything properly.

References

- Constitution of the Republic of Azerbaijan: Baku, 1995
Education Law of the Republic of Azerbaijan: (project) March 18, 1999)
The total speech of the national leader Haydar Aliyev at the gathering of the state commission on the reforms in the education field. Baku, 2001
N. Kazimov: "Pedagogy for higher educational institutions" Baku, 1999
M. Hasanov: "Optimizing of the teaching process" Baku, 1983
B. Ahmedov, A. Rzayev – "The lecture conspectus of pedagogy", Baku, 1983
A. Hashimov, F. Sadiqov – "Azerbaijan people's pedagogy", Baku, 2000
E.A. Kelbeliyev – "Scientific organizing of pedagogical labor" Baku, 1996
T. Quliyev – "The bases of management" Baku, 1993
M. S. Merdanov- "Independence and education reform". "Azerbaijan muellimi (Azerbaijani teacher)", July 30, 1998.



The Innovative Approaches and Methods of Specialists Training in Higher Education in Azerbaijan

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Abstract

The training of top-level specialists should be clearly and flexibly linked to technological and innovative changes in the national economy. The structure of professional training should correspond to the structure of demand for them from the public sector and large and medium-sized entrepreneurs. This means that the educational system should be closely integrated into the national economy of Azerbaijan, sensitively catch the ongoing innovation changes in higher universities of Azerbaijan. This paper considers some of the problems of higher education and directions to solve them in Azerbaijan, as well as the issues of implementation and improving new teaching methods in universities, in particular at Azerbaijan State Economic University (UNEC). The authors systematized having experience in the following disciplines: Organizational Culture, Behavioral Sciences, Business Ethics, Negotiation Techniques, Business Organization and Management, Technology Management, Innovation Management, Strategic Management in various The universities of Azerbaijan (Western University, Baku University of Business, Azerbaijan’s Private University, Azerbaijan Institute of National Economy under the Cabinet of Ministers of Azerbaijan, SPAA, Azerbaijan State Economic University, etc.) also offered a number of recommendations: The guidelines for improving the process of innovative transformations in the educational process.

Keywords: Innovative changes, Higher education, Approaches, Traditional and innovative teaching methods,

Introduction

The educational system should be closely integrated into the national economy of the country, sensitively catch the ongoing innovation changes and adapt to them, respond to the current trends in the technological and innovative development of the national and world economy. Consequently, the use of innovative techniques and teaching methods will contribute to the improvement of qualifications and skills of students and undergraduates, improve the quality of education in Azerbaijan.

The paper analyses the statistical data of higher education in Azerbaijan for 2000/01-2017/18. All issues related to the training and application of new methods in the educational process were revealed by the authors while teaching in various universities of Azerbaijan (Western University, Azerbaijan Private University, Baku Business University, Institute of Management of National Economy under the Cabinet of Ministers of Azerbaijan Republic, also School of Public Administration in Azerbaijan - SPAA, Azerbaijan State Economic University (UNEC)).

The main research questions are as follows: How is higher education developing in Azerbaijan? Does the Azerbaijani government support higher education? Is the quality of higher education in the republic enough? Does the higher education of Azerbaijan attract foreign citizens? Does the Azerbaijani government support young citizens leaving abroad for higher education? Do the government and top managers of universities support training courses for lecturers and trainers? Do teachers use the innovative teaching methods? What innovative teaching methods are used to train specialists for the national economy? What problems exist in the educational



process? What can be improved in the educational process of future economists? What innovative techniques and methods need to be introduced into the learning process?

Method

The following research methods were used in this paper: observation method, data grouping method, statistical analysis method, data comparison method. The authors gave an expert assessment using SWOT analyses.

Findings

Socio-economic analysis of higher education in Azerbaijan and its state support

Recently, higher education has become an important factor in the competitiveness of countries. Each country is forced to train personnel with a high level of education in order to prepare the basis for innovative transformations, which in turn not only develops the national economy, but also strengthens its position in the global market. Estimates by specialists from the Organization for Economic Cooperation and Development (OECD) confirm that education costs are very, very high-yielding investments that pay off several times (Yakovleva, 2009).

The process of education as an economic category interacts with various sectors of the national economy and economic and production activities. In this case, all resources (labour, technology, materials, as well as raw materials, energy, information resources, etc.) are combined in a single process of reproduction and reproduction of the total social product (Hamidov, H.I., Huseynli, AT Shamkhalova, S.O, 2016).

In the process of education, human capital is formed and modified. The formation of human capital in Azerbaijan plays an important and priority role for the state. These government measures are treated as "Azerbaijan's Development Concept - 2020: outlook for the future» (Azərbaycanın İnkişaf Konsepsiyası-2020: gələcəyə baxış ", 2012)," National Education Development Strategy of Azerbaijan Republic» (" Azərbaycan Respublikasında təhsilin təhsilin inkişafı üzrə Dövlət Strategiyası ", 2013), Laws of Azerbaijan "About Education "(Təhsil haqqında", 1992) and "About Science" (Elm haqqında, 2013).

During the years of the restoration of the sovereignty of Azerbaijan the number of students, also the number of foreign citizens studying in the country's universities has increased. As can be seen from table 1. the number of bachelor students in the academic year 2015/16 increased by about 27% compared with 2000/01. Over the same period, the number of bachelor students in the group of agricultural specialties increased (approximately 82%). The indicators of next group specialties also increased: in economics and management speciality - approximately 37%, in technical and technological sciences - approximately 29%. During the same period, the proportion of bachelor students in specialty groups of natural sciences decreased (approximately 44%). At the same time the share of bachelors on speciality humanities and social sciences decreased (approximately 51%). As can be seen from table 1. the number of bachelors increased by about 15% over the academic years 2015/16-201 /18. The increase in the number of bachelors was observed by groups of specialties in agriculture - about 49%, for natural sciences - 14; for economic disciplines, also in the humanities and social sciences - about 15%, for technical and technological disciplines - about 16%.

Table 1.Number of bachelors, who have education in state and non-governmental universities of Azerbaijan (men). (<http://www.stat.gov.az/source/education/>, 2019)

Years	2000-2001	2010-2011	2015-2016	in 2015/16 to 2000/01, in %	2017-2018	in 2017/18 to 2015/16, in %
Number of students- bachelors, total-men	26403	29904	33645	127.28	38546	114.56
Of them on speciality:						
Natural science	2532	1390	1436	-43.29	1635	113.85
Agricultural science	315	471	571	181.69	850	148.86
Economy and management	4890	6174	6663	136.57	7656	114.90



Human and social sciences	9088	3258	4539	-50.06	5209114.76
Technological science	5930	7094	7614	128.40	8380110.06
Etc.	3648	11517	12822	351.48	14816115.55

As can be seen from table 2. for the period 2000/01-2015/16 the number of masters in the humanities and social sciences has decreased (about 42%), but the proportion of graduate students in all other areas of education has increased: in the natural sciences by about 75%, in agriculture - about 163%, in economics and management - 213%, on technical and technological disciplines - about 40%. According to the data of table 2. the increase in the number of masters was observed for the period 2015 /16-2017 /18 (32%). The number of masters in natural sciences increased by 45%, in agricultural disciplines approximately 24%, in economics and management - 12%, in the humanities and social sciences approximately 35%, in technical and technological disciplines by 68%.

Table 2. Number of masters, who have education in state and non-governmental universities of Azerbaijan (men). (<http://www.stat.gov.az/source/education/>, 2019)

Years	2000- 2001	2010- 2011	2015- 2016	In 2015/16 to 2017- 2000/01, 2018 in %%	In 2017/18 to 2015/16, in %%
Number of masters, Total (men)	2752	3698	4953	179.98	6515131.53
Of them on speciality:					
Natural science	321	548	560	174.45	814145.35
Agricultural science	35	21	92	262.86	114123.91
Economy and management	638	1263	1994	312.54	2234112.03
Human and social sciences	1105	1183	639	-42.17	860134.58
Technological science	570	520	795	139.47	1336168.05
Etc.	83	163	873	1051.80	1157132.53

Recently, the number of foreign students receiving education in Azerbaijani universities is growing every day. For example, republican universities prepare specialists not only from CIS countries, but also from abroad in the field of oil and gas production and refining, for the petrochemical industry, for the industry of petroleum engineering, in the field of oil shipping, military science, in philology, history, in mathematics and in other disciplines. Note that the area of the countries is the most diverse and covers almost the Earth world (from the USA, Canada, Latin American countries to China, from the countries of the African continent to European countries).

For the period 2000/01 - 2017/18 academic years, the proportion of the number of bachelors and masters combined increased by 128.3%. But for the period 2010 /11-2017/18 years the proportion of students from Russia increased by 151.8%, from Ukraine - 300%, from Kazakhstan - 66.7%, from Turkmenistan - 70%, from Uzbekistan - 6.3 times, from the USA 5 times, from Georgia - 136.4%. Unfortunately, the proportion of students from Turkey has decreased (by 32%).

According to statistics, over the past 18 years, the number of Azerbaijan citizens receiving education abroad has also increased. The number of Azerbaijani youth receiving higher education in foreign countries has increased almost twice (period 2000 /01-2017 /18). The period 2010 /11-2017/18 years differs by particular activity of various educational programs from Europe and Asia, which particularly influenced the growth of the number of students studying abroad. The growth in the number of students in the USA from Azerbaijan is especially noticeable (this indicator has increased by twice), in Canada (280.5%), in Germany - 116%, in the UK - 112, 5%. Unfortunately, the number of students receiving higher education in Turkey has noticeably decreased by 32%

It should also be noted the role of state support in obtaining highly qualified education in Azerbaijan. According to the "State Program for Teaching Higher Education of Azerbaijanian Youth in 2007-2015" of December 31, 2016 State Oil Fund of the Azerbaijan Republic receive a grants for 3,302 students who are educates not only in European states, but also in Canada. About 29% of the total number of bachelor and master students are educated in Great Britain, in Turkey - 22.1%, in Germany - 12.4%, in Canada - 7.2%, in the Netherlands - 5.2%. About 4 % of bachelors and masters are educated in Russia ("The State Programme on Universities in 2007-2015", 2015). It should be noted that the majority of these are masters (79.0%) (Manafova, 2013).



A significant part of masters receive higher education mainly in economic specialties. The most popular among young people is the specialty “Economics and Management” (722 people in 2017). In second place in popularity are specialties related to engineering knowledge (138 people in 2017). There is also interest in the legal sciences (120 people in 2017) and the ICT field (118 people in 2017). The same situation can be observed among bachelors (“The State Program on 2007-2015”, 2015).

Many alumnus, when returning home, work not only in foreign companies, but also in higher education sector of Azerbaijan. The first pioneers among them were graduates of the one-year course of top managers from Turkish Istanbul University since 1991, graduates of Istanbul University on the VAQF’s pilot project of the Turkish World Research Foundation in Baku, who also received a master's degree in Turkey and worked as teachers in the Azerbaijan Institute of Management of National Economy under the Cabinet of Ministers of the Republic of Azerbaijan since 1997.

In Azerbaijan Institute of Management of National Economy under the Cabinet of Ministers of Azerbaijan Republic was also organised the three-month course of market economics’ course by the professors of the Kiel University of Germany. There in the period 1994-1997 was organised the three year course of “Public Administration and Management” under the TACIS programme. Lecturers and Trainers from Nottingham Trent University (Great Britain), the University of Maastrich (Netherlands) and the Institute of Management of Ireland delivered the disciplines in Economics and Public Administration to trainees from Azerbaijan. At the end of these courses was established the School of Public Administration in Azerbaijan (SPAA), whose senior teachers taught modern methods and techniques in economics and management to senior officials of the Customs Committee, the Ministry of Taxation of Azerbaijan, employees of the Central Bank and other organizations in 1995-2001. Nowadays, many graduates of these courses teach at Azerbaijan State Economic University, at Baku State University, at Western University, at Baku University of Business, at private university Azerbaijan, and others. Since 2001, senior lecturers of School of Public Administration in Azerbaijan (SPAA) and teachers who graduated from the Istanbul University faculty began working in the Business Administration faculty of the Azerbaijan State Economic University (UNEC).

Since 2004 various programmes of the European Community and Asia suggest to Lecturers and Researchers of Azerbaijan State Economic University (UNEC) some advanced training. For example, according to the latest data from the UNEC website, a vacancy is open for receiving scholarships for research and internship at the Kong-Gong University of Japan, at universities in South Korea, and at universities in Turkey. Every day the number of teachers who have received higher education abroad is growing whose actively use the innovative teaching methods and techniques in practical classes and lectures.

Students enrolled in undergraduate and graduate programmes also have the opportunity to receive additional education in universities in Europe, Asia, and the America continent. According to the latest news from the UNEC website, they have the opportunity to study from the third year at French Montpellier University, London Scholl of Economics and get a double diploma in education.

Innovative techniques and teaching methods implemented in Azerbaijan State Economic University (UNEC)

In conditions when the formed education system (“supporting education”) is gradually being replaced by an innovative education model (“creative learning”) more of trainers and tutors are looking the new teaching methods in the educational process. In this process have been changing the requirements to all interested persons of education: tutors, teachers, trainers, students, administrative staff of university, finally all educational system.

As can be seen from the Scheme 1. the traditional system of education goes through several stages on the path of improvement. Training on the basis of indispensable involvement in the environment of thinking in the 1960s of the last century proceeds to the training of practical skills on the basis of such training seminars as case studies, business games, learning systems. Since the 1990s the educational process has transferred to a new stage of learning - the development of interactive courses using personalised multimedia systems (Personal computers, mobile phones, distance learning, etc.). Further technical improvements should be replaced by an educational process based on the tet-a-tet technology of a student with a trainer or teacher using various socio-psychological

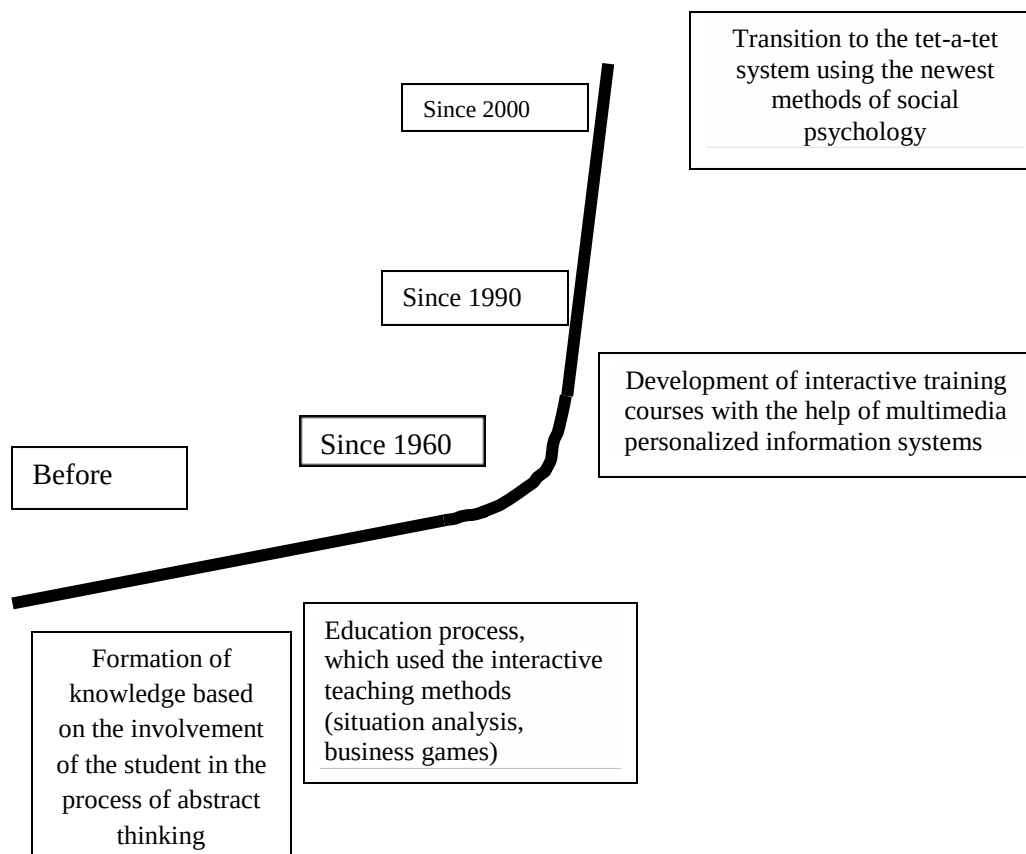


methods of teaching.

The educational process, which actively used the Soviet system, has some drawbacks:

- Classroom education system - the transfer of knowledge through a survey lesson - does not meet modern requirements for the use of creative activity;
- Education programmes are mostly dogmatic in nature, not adapted to actively changing conditions of reality;
- The methodological base of textbooks is so outdated that many scientific achievements and recent discoveries are not reflected in them;
- There is no proper motivation of the average student for independent thoughts and actions, i.e. to the ability to develop independently and to replenish existing knowledge.

In this context, schools and methods of developmental education, which teach the dynamic perception of reality, are of great importance. The specificity of the education system should be manifested in its ability not only to provide the student with knowledge, but also to form the need for continuous mastering them, i.e. develop the skills and self-education skills. In addition, for the purpose of productive professional activity, it is necessary to instill in students such important qualities as creativity, independence, enterprise, agility, stress resistance. To this end, since the 90s of the last century, they began to use innovative, reflective business games, in which situations of choice and decision-making are modeled.



Scheme 1. Education process and requires to its development.

If we take into account the fact that new psychological tests and business games have been actively used in the educational process in the spatial context of the former Soviet Union since the 1980s (they cover the period of creating interactive educational programs taking into account multimedia tools and information technologies, as



well as tet-a-tet based programmes' learning which using various socio-psychological techniques), the active use of psychological techniques in teaching and in the educational process has now become not only fashionable, but also necessary condition of the process of interactive learning.

These processes include the use of an immediate survey of students according to the method of the Mentimeter system, the joint design of the business plans of students under the guidance of a trainer. The use of interactive forms of learning, such as testing after a lecture, e-consultations, and e-learning, helps realise the benefits of learning: mobility, interactivity, memorability, flexibility in use, accessibility, reduction of training expenditures (Yakovleva, 2009).

Now, in all developed countries of the world, a lot of attention is paid to the process of socialisation and upbringing of new generations of society. Scientists distinguish two fundamental approaches in pedagogy: nature conglomeration or cultural conglomeration; following the child's "natural" nature or obeying its culture? The scientists' answer is led to a single goal. At the same time, the goal of education is to lead to culture (improvement of the student's positive creative qualities), and the method of education should be based on the nature of the student (identification of generic, external, internal psychological negative factors and their correction in a positive direction).

As can be seen from table 3. only strong students are able to better adapt to the new world requirements of training, and weak students perceive all innovations as a blow to their ego and actively resist innovations. Students with average statistical knowledge at the beginning watch for innovations in education with caution, but after adaptation they perceive these innovations positively.

Table 3. SWOT Analysis of Innovative Training in High Education School of Azerbaijan

Strengths		Weaknesses	
➤ Developing the ability to think independently and make decisions; ➤ Strong students gain independent work experience; ➤ The Lecturer or Trainer can control not only the student's behavior, but also the process of their thinking.		➤ Weak students do not gain independent work experience; ➤ Students' self-control may be weakened; ➤ Not all tasks are completed on time.	
Opportunities		Threats	
➤ Teaching time is shortened by increasing attention to detail; ➤ There is a sincere interest in the subject of study.		➤ With the strengthening of social ties between students, ties with teachers deteriorate. ➤ Lack of control can contribute to laziness;	

Using the new approaches of learning in their course (business games, case studies, testing, etc.) the trainer and teacher can adjust the subject of their subject according to the interests of students and their level of preparedness; pay attention to the overall level of assimilation of complex topics; focus on clarifying topics that are difficult for students to understand. In addition, a poor student has a chance to take the exam several times until he reaches the desired result.

Using the new approaches of learning in their course (business games, case studies, testing, etc.) the trainer and teacher can adjust the subject of their subject according to the interests of students and their level of preparedness; pay attention to the overall level of assimilation of complex topics; focus on clarifying topics that are difficult for students to understand. In addition, a poor student has a chance to take the exam several times until he reaches the desired result.

Results, Conclusions

Prestigious models of higher education are the Chinese model, and the European education system, each of which has its own content, principles, values and specificity. Basically, the formation of a high level of higher education should be based not only on a high level of higher education with the support of the government, on scientific and technical cooperation and cooperation of universities of the whole world.



For the formation of a quality higher education Azerbaijan transfers to implementation of principle of openness, not limiting the student in time and spatial framework: the student gradually develops into a subject who decides for himself what disciplines and when he can study and when he can pass the exam. And it forms the autonomy and sense of responsibility of the student, taking into account his individual personality characteristics.

The development of cooperation and interaction of universities is possible in terms of joint scientific research developing. For this purpose inter-university laboratories are being formed as centers of collective use, interuniversity departments are being created, regional centers of quality management system certification are being formed, programs for the export of educational services (training programs for bachelor and master) and technologies (distance learning programs, interactive business games using information technologies) are being developed which will contribute to the development of innovation activities in the country.

Higher education should be based on using of information and communication technologies, on development of network distance learning methods. The creation of joint information resources contributes to developing of educational technologies and the implementation of e-learning, the introduction of innovations and the acquisition of positions like as the regular customer and the regular provider of educational, scientific and methodological services, consultations, etc. It should be noted that information technologies only enrich the learning process. Management of the learning process remains with the teacher and trainer. Only the teacher organises the procedure of contact with the student during consultations or through communication on the Internet.

Using the innovative learning techniques the teacher works as an expert and consultant (tutor, moderator, mentor) who helps to student to navigate the world of various information. With the expansion of the circle of consumers of educational services the encouragement is used as a method of active self-realisation among students.

Innovative characteristics of new teaching methods are as follows:

- 1) to use the irrational (inherent in the East) and also rational (inherent in the West) analysis methods in study and in research;
- 2) to support of constant attention and interest of students on the situation being analysed;
- 3) to use of non-standard methods of analysis;
- 4) to develop of students' creative approaches in identifying the details, as well as resolving the proposed situation.

It is necessary to note Azerbaijan high education system has got some problems that still need to be solve. Unfortunately, higher education in Azerbaijan has a number of shortcomings, which include the following:

- There is no unification in education programmes for various disciplines, which creates certain difficulties for students, especially for students of private universities. These disciplines mainly include new educational courses in economics, sociology, psychology, information technology, and philosophy. There are no uniform textbooks, especially in Azerbaijan language;
- Some knowledge is not adjusted in accordance with the temporary stage of social development, some lectures contain old topics, the methodological base of education is weak. Many students are not familiar with the scientific achievements of Azerbaijanian and other Turkic-speaking, Islamic scholars of the middle Ages. For example, many do not know that the founder of sociology was Ibn Haldun, the scientific heritage of Aristotle and the ancient Greeks was restored thanks to the abstracts of Al Farabi (for example, look at the course "Behavior") (Abasova, 2007);
- With the development of information technology more students use telephones and smartphones and they pass valuable information past the ears. There are no teaching techniques using students' mobile gadgets, which would contribute to their active involvement in the educational process;
- The principle of learning "a student must able to apply acquired specific knowledge in his future profession" is gradually replaced by the principle "a student must select resources-knowledge to adapt to new conditions and be able to find and correctly use various options for solving life problems". The task of the faculty, management and specialists of high schools is to create and form the new schools and methods of developmental education



that teach the dynamic perception of reality;

➤ Not all foreign diplomas from foreign countries are accepted by the Ministry of Education and the Higher Attestation Commission of Azerbaijan Republic. If this issue is resolved by bilateral agreements between the CIS countries, then there are no agreements between Azerbaijan and other European countries and countries of the Americas which creates some obstacles in the identification of BSc's., MSc's. and PhD's Diplomas.

Recommendations

The implementation of innovative techniques and methods of functioning in universities' administrating create some opportunities and prospects for accelerated access to new markets. The development of information technology contributes to the network interaction of the educational process, reduces expenditures; expands access to information not only in the network of the university itself, but also in the networks of the university partners. And it promotes the sharing of risk among network members, strengthening cooperation ties.

Summing up, we note that Azerbaijan, being exactly in the middle of the Eurasian continent, at the junction of Europe and Asia, between the Christian and Muslim worlds has a wide potential for implementation of teaching different methods. And in turn, Azerbaijan develops traditional areas of science - mathematics and higher mathematics, philosophy, philology, archeology, history, learning old languages as well as geophysics, chemistry, mineralogy, and other disciplines. But, unfortunately, Azerbaijan has not yet created its own development model in the field of higher education. The need to create and form a national model of higher education is a priority task for the society and universities of the republic.

The preparation of specialists with higher education is an interacting system that determines the consideration of the features of the educational process throughout the world. It is necessary to take into account the fact that in the context of globalisation many young people who focused on career growth prefer to receive a higher education that can compete with the best European standards. For this purpose, it is necessary to form such a model of higher education in Azerbaijan that could train specialists not only for the CIS countries, but also for Europe and the whole world. It is necessary to create the structure which will be cooperate university and research institutes' activity on the example of the Research State University of Nizhny Novgorod of the Russian Federation (www.unn.ru, 2019).

The authors suggest that the creation of an information base about specialists who have been trained abroad and working in the universities of the republic is one of the first steps for the formation of the faculty. Secondly, it is necessary to form groups for creating shells for content as part of network specialists in various disciplines. Thirdly, it is necessary to continuously update and improve training programmes, business games, programmes for analysing a specific situation for sale through the information network - SKYPE, WHATSUP, etc. Fourth, it is necessary to develop scientific and technical cooperation in developing joint training programmes with the CIS countries. Fifth, it is necessary to adjust the system of knowledge assessment and testing the level of competence, to form a unified system of knowledge assessment.

References

- Abasova, S.H. (2014) The Rational Combination of Innovative Methods with Social Psychology in the Educational Process in the Field of Economists' and Managers' Training. *Collection of scientific papers of Scientific Institute of Economic Reforms under Azerbaijan Republic Economy Ministry. Issue 14*, 40-44. (in Russian) - Абасова, С.Г. (2014) Рациональное сочетание инновационных методов с социальной психологией в образовательном процессе в сфере подготовки экономистов и управленцев. *Сборник научных трудов НИИ Экономических Реформ при Министерстве Экономики Азербайджанской Республики. Выпуск 14*, 40-44.
- Abasova, S.H. (2007) Collection of Lectures in Course "Behavior Sciences". *Baku, Azernesr Publishing*, 170. (in Azerbaijan) – Abasova, S.H. (2007) "Davranış elmləri" üzrə mühazirələr toplusu". *Bakı, Azərnaşr*, 170s.
- "Azərbaycanın İnkişaf Konsepsiyası-2020: gələcəyə baxış" (2012) *Azərbaycan Respublikası Prezidentinin 2012-ci il 29 dekabr tarixli Fərmanı* - https://president.az/files/future_az.pdf
- "Azərbaycan Respublikasında təhsilin inkişafı üzrə Dövlət Strategiyası" (2013) *Azərbaycan Respublikası Prezidentinin sərəncamı № 13, 24 oktyabr 2013-cü il* - www.e-qanun.az/framework/29145



- Education, Science and Culture in Azerbaijan. (2016). *Baku, State Committee of Statistics*, 218-219. - Azərbaycanca təhsil, elm və mədəniyyət. (2016) *Bakı, Statistika üzrə Dövlət Komitəsi*, 218-219.
- “Elm haqqında” (2013) *Azərbaycan Respublikasının Qanunu* - http://science.gov.az/uploads/PDF/Elm_haqqinda_Azərbaycan_Respublikasının_Qanunu.pdf
- Hamidov, H.İ., Hüseynli, A.T. Shamkhalova, S.O. (2016) Innovation Creating and Stimulation in Business Developing in Azerbaijan. *Collection Paper of 2nd Simpozium “Innovations Diversification Research”*. Penza city Russian Federation, Publishing Centre “Science and Civil Education” of International Centre of Scientific Cooperation, 113-120 (in Russian) - Гамидов, Г.И., Гусейнли, А.И., Шамхалова, С.О. (2016) Создание и стимулирование инноваций в развитии бизнеса в Азербайджане. Сборник 2-й международной научно-практической конференции «Прорывные инновационные исследования». Пенза, изд. МЦНС «Наука и просвещение», 113-120.
- <http://www.stat.gov.az/source/education/> (2019) (Hissə 1.8.23. Dövlət yolu ilə xarici ölkələrdə təhsil alan azərbaycan vətəndaşlarının sayı)
- <http://www.stat.gov.az/source/education/> (2019) (Hissə 001_8_10-12.xls)
- Manafova, E.Q. (2013) The Competitiveness of Higher Education Schools in the field of Education Services’ Market. *News of Economy institute of Azerbaijan National Academy of Sciences*, No.3, 82-87. (in Azerbaijan) - Mənafova, Ə.Q. (2013) Təhsil xidmətləri bazarında ali məktəblərin rəqabətqabiliyyətliliyi. *AMEA İqtisadiyyat İnstitutu Xəbərlər jurnalı*, No. 3 , 82-87.
- Strategic Road Map of Azerbaijan for Perspective Development of the National Economy of the Azerbaijan Republic. (2016). *Decree of the President of Azerbaijan*, December 6. - Azərbaycan Respublikasının milli iqtisadiyyat perspektivi üzrə Strateji Yol Xəritəsi. (2016). *Azərbaycan Respublikası Prezidentinin Fərmanı*, 06 dekabr.
- “The State Programme on Education of Azerbaijanian Youth People in Foreign Country Universities in 2007-2015” (2015). Decree of the Chairman of the Education Commission under the President of the Republic of Azerbaijan No. 8 of February 09, 2015 (in Azerbaijan). - “2007-2015 illər ərzində xarici ölkələrin universitetlərdə təhsil alan azərbaycan gəncləri üzrə Dövlət Proqramı” (2015) Azərbaycan Respublikası Prezidenti nəzdində Təhsil üzrə Komissiya Sədrinin Fərmanı. No. 8, 09 fevral.
- “Təhsil haqqında” (1992) *Azərbaycan Respublikasının Qanunu* - www.e-qanun.az/framework/7956
www.unec.edu.az
- www.unn.ru
- Yakovleva, Y.V. (2009) Modern Education which focused on the Training of Highly Qualified Personnel for Innovative Business in Terms of Knowledge Economy. *Journal of Omsk State Technical University*, No. 3, 9-16. - Яковлева Е.В. (2009) Современное образование, ориентированное на подготовку высококвалифицированных кадров для инновационного бизнеса в условиях экономики знаний. *Журнал Омского государственного технического университета*, № 3, 9-16.



Lifelong Economic Education Based on Distance Learning Technologies

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Abstract

The purpose of lifelong education is the constant creative renewal, development and improvement of each individual throughout his life. By lifelong education, we understand not the mechanical movement of a person from pre-school to general secondary, professional or post-graduate education, but the harmonious process of cyclical renewal of personality at each of the indicated stages of development. At the present stage of development of scientific and technological progress, information technologies are coming to the fore. This study will address the problem of introducing innovative processes in lifelong education, namely the introduction of distance technologies into the system of lifelong economic education. Economic education, economic literacy of the population at the present stage are one of the sources of increasing the intellectual potential in the regional economy. Increasing competition in the labor market, the restructuring of the economy, the introduction of new technologies in production - all this contributes to stimulating self-employment, training and retraining by occupation, increasing the demand for training in the economic profile, the demand for economic knowledge. The transition to the market creates many problems in organizing the training of specialists at various levels. Continuous, but also regulated flow of well-trained and qualified personnel has always been and will be one of the most important, inalienable conditions for economic and industrial development. Industry and the economy in all countries have long recognized that vocational training is an investment in itself, since the quality and level of standards for products and services largely depends on the qualifications of the relevant personnel, on human resources that can be developed on a broad educational basis.

Keywords: Lifelong Education, Distance Learning, Economic Education, E-Learning, Teaching

Introduction

Modern humanity is at a turning point in the worldview, changing the basic values of technological civilization, the transformation of the scientific paradigm. Our society is undergoing significant changes associated with the revision of a number of scientific, political and social issues. They occur in all spheres of social life, affecting all public institutions, including the institute of education. In this connection, changes are taking place in the educational system, both initiated by the system itself and under the pressure of changes in other spheres. One of the components that make up the goal of education today is the improvement of a person's professional and spiritual qualities through his entry into the innovation value system, and his active involvement in the information culture. In modern conditions, when the amount of knowledge necessary for a person sharply and quickly increases, it is important to inculcate the ability to independently replenish their knowledge, to navigate the rapid flow of scientific and political information. This means that it is necessary to develop mechanisms for advanced training, the principles of its continuity and independence. The world education system is going through a transitional stage in its development and a radical change is taking place in many academic systems. Under these conditions, the need to establish a new education system that meets the requirements of the time is relevant for all states.



In the current socio-economic conditions, one of the tasks facing the education system is to provide high-quality and affordable education to wide sections of the population. The solution to this problem facilitates the distance form of education. Day by day in the world rapidly growing number of educational institutions are to varying degrees using distance learning. Lifelong education has always been considered as a priority issue arising at the present stage of technological development, and taking place in the world's political, socio-economic and cultural changes.

The introduction of new information technologies has led to increased attention to the development of distance learning. The experience of many countries of the world community shows that distance learning is an effective form of improving the quality of training specialists in education centers. Distance learning provides effective self-development for students. For the successful development of distance learning at the university, it is necessary to ensure appropriate organizational and pedagogical conditions. It significantly expands the number of students, provides them with the skills and motivation to improve their educational status throughout their lives. It is not by chance that many researchers express the opinion that distance learning in the near future may become the leading form of training specialists. In addition to improving the effectiveness of training, it will provide the learner with the necessary knowledge and practical skills to find and use the necessary information on the global Internet. Without such knowledge, it is difficult to imagine a competent professional not only in the near future, but even today.

The use of computer technology in distance education of students allows them to improve its cognitive processes. The introduction of distance education fundamentally changes the role of teacher-student positions. With the traditional form of education, the teacher acts as an interpreter of knowledge. With the growth of the educational space, the function of the interpretation of knowledge is assumed by the student, and the teacher is the coordinator of this knowledge. He consults students, guides the work of the student's cognitive processes, that is, assumes the functions of supporting the student's professional development. [1c.50–53] The study allowed us to represent certain conclusions, to develop the following recommendations and suggestions.

Having examined the history of the development of distance learning, we believe that the main premise for the development of a distance learning system is its integration capability. Nowadays, it is impossible to concentrate in every educational institution all world information means stored by mankind in the scientific and educational space. Consequently, it is necessary from every geographical point of the planet where the learning process is organized, to provide deleted access to information resources located in any other geographical spot. Distance learning makes information resources effective spreaded across different territories. This is the conceptual justification and ideology of the need to develop distance learning.

The immediacy of creating a distance learning system in Azerbaijan presently is caused by many factors. This is the recollection of scientific and technical centers in large cities, the formation of new needs of the population in relation to the maintenance, and technologies of education, the development of a market economy, the enlargement in migration of the population, etc.

However, there are problems in the development of distance learning in Azerbaijan:

- The level of computer literacy in the country leaves much to be desired;
- there are not enough people who have a computer connected to the global network at their disposition;
- teachers are used to traditional forms of education and yet are not ready for technologies of distant teaching of educational disciplines;
- distance learning requires a different organization of the educational process, other teaching ways than the traditional system;



- it takes time to teach the teaching staff how to use new educational technologies;

Distinguished problems in the distance learning system must be solved. Specifically:

- it is necessary to more clearly determine the features, principles and peculiarities that characterize precisely the distance learning;
- to characterize the didactic principles and methods of such training;
- it is necessary to determine the requirements for the content, forms, for the educational and methodological assistance of distance learning;
- set out the principles of organization and management of the educational process;
- develop the requirements for logistics;
- improve the regulatory basis;
- develop requirements for technology training in the Internet environment, requirements for telecommunications environment;
- certification of the institutes (universities) of distance education, virtual universities;
- should be taken into account - the fact that not all specialists in different specialties can be fully trained in distance technology.

Having researched the points of view of scientists in relation to the concept, “distance learning” and “distance education”, we believe that distance education is a complexly organized system, referable to a fairly new form of education, able to satisfy the educational needs of the population regardless of its spatial and temporal location regarding to educational institutions, including funds, the process and the result of educational standards carried out by a telecommunication technology teacher and student, which is performed in a specific educational environment, and distance learning is a new form of education in Azerbaijan, which at the moment exists along with other forms of education - full-time, part-time, external in the system of continuous education. Distance learning is a system and learning process in which the teacher and the student are at a distance from each other, and therefore rely on electronic means and printed manuals for organizing the educational process.

Distance learning as a component of the educational process is based on specific theoretical principles, practical experience and methodological principles. Thus, the addition of a distance learning system with the principles proposed by the creator and their precise and exact implementation guarantees the quality results of a distance learning system. It is necessary to continue the practice of conducting experiments in distance learning in order to study the factors determining the strengthening of the multivariate development of distance education in Azerbaijan while ensuring its high quality, as well as its association within the national and global educational process in a globalized market and international contest in this area.

Over the past decade, practice has shown that Azerbaijan has a powerful system of distance learning, especially in universities, where serious attention is paid to reforming the existing system of education. All educational institutions have a pronounced property of openness and personal touch in the process of organizing and conducting distance learning. The structure of the distance learning system at the educational institution level is centralized, consisting of the Distance Learning Center based on the leading university, the Distance Learning Faculty, the Distance Education Institute, the Distance Education Department and the remotely located educational and consulting centers. The distance learning process consists of variable contact and non-contact learning intervals. In all occasions, the last predominates in time, and the contact period may be absent altogether.

It is necessary to improve and reconsider the curriculum taking into account current and future requirements. Since promise is a fundamental principle in improving the system of distance learning. New interesting forms,



methods and means of training will guarantee the most effective accomplishment of the goals set - the formation of professional and educational skills and abilities, the cluster of initial professional experience.

Improving the system of control and impulse in the process of distance learning is simply necessary. Control over the mastering of educational material should be carried out frequently (at least once a week). We believe that it is advisable to strengthen self-control using tests. The problem of distance identification of the student's personality is removed when using videophones and video conferencing. It is necessary to more thoroughly examine the psychological problems in the implementation of distance learning and the outcomes of their use in the educational process. In the system of distance education, moral and psychological preparation of students is very important.

Summarizing all the above, we can say that distance learning at the present stage of development of the economy, science and technology is relevant and timely. The distance learning system should not stand in one place. It is necessary to develop and improve it in diverse organizational areas, starting with the training system and ending with the ways of control and motivation.

Changes in the social environment are closely related to the change in technological trends at different stages: - Stage 1 - pre-industrial society in which there existed - human communication organization based on analog thinking; - Stage 2 - Information Society with a computer organization - communication based on digital thinking;- Stage 3 - a creative society with a social organization of communication; and - hybrid thinking. The modern society of the XXI century is at the stage of changing the technological paradigm. Information technologies, which determined the image and essence of the twentieth century, give way to technologies that open a new path of development - the economy, education, new society.

Changing the learning environment: the transition to a wireless network, the spread of smart terminals, the progression of remote devices, the expansion of SMART work (mobile office) is a new quality of society, in which the combination of using technical means, services and the Internet by trained people leads to qualitative changes in interaction subjects, allowing to obtain new effects - social, economic and other benefits for a better life.

The learning environment is the convergence of ICT and the Internet infrastructure (the fusion of on-line distribution of software and content in the form of multimedia). The structural part of the implementation of this idea is the introduction of e-learning into the system of professional development of teaching staff. The main reason for the relevance of the introduction of training is the need to improve the existing education system in accordance with the new requirements of the economy and society. The main direction of the introduction of training is the formation of information-communication and technological competence of educators in the electronic environment. With the introduction of e-learning, conditions will be created for the realization of the proclaimed UNESCO principle of education of the 21st century "education for all" and "education through life" - "Life Long Learning (LLL)". Electronic distance learning will increase the accessibility of educators education "always, everywhere and at any time", provide an opportunity to independently develop the trajectory of professional growth, equate the level of education of educators of urban and rural schools, open the way to the international educational space. The main goal of distance learning is to create an environment that provides a high level of competitive education by developing students' knowledge and skills of the 21st century modern society: cooperation, communication, social responsibility, ability to think critically, solve problems quickly and efficiently. In the course of the implementation of the above tasks for the institutes of advanced training of pedagogical personnel, the question arises of how to teach modern educators in the light of advanced training in an electronic environment with distance-based technologies. Distance learning is flexible learning, which implies a large number of sources, maximum variety of multimedia (audio, video, graphics), the ability to quickly and



easily adjust to the level and needs of the listener using mobile devices. Distance learning should be easily managed in order to ensure educational organization flexibility of the educational process, and integrated with external sources. The need to develop an integrated intellectual educational environment is based on a sufficient degree of development.

We are obtained the following scientific and practical results: - as a result of studying the works of foreign authors on the problem of distance education, it was found out that at present there are many opinions about distance and electronic education, but there is no single accepted definition; - clarified the definition of distance education in this work; - the main tools of Internet marketing were highlighted, their main characteristics, as well as advantages and disadvantages were stated;

In this paper, we investigated the distance model as an innovative teaching method. The history and development of distance learning was reviewed, and earlier forms and various distance learning technologies, such as radio, television, interactive videos and the Internet, were studied. Synchronous and asynchronous teaching methods were also studied.

In the “State Strategy for the Development of Education in the Republic of Azerbaijan” Approved by the Decree of the President of the Republic of Azerbaijan on October 24, 2013, the development of education in education takes an important role. One of the important strategic directions envisages the creation of an educational infrastructure that meets modern requirements and ensures continuing education. This area covers such measures as the creation of an infrastructure in educational institutions, an appropriate teaching methodology based on information and communication technologies, streamlining the network of educational institutions, distance education, education and development for talented children and children in need of special care, education of the elderly, regional universal centers providing counseling services on vocational and educational issues, vocational training centers and complexes with modern software, the creation of campuses.

Method

Method of the research:
analysis and synthesis, comparative, deduction and induction

Results, Conclusions and Recommendations

Distance education with the development of modern technologies is becoming increasingly attractive for students, for representatives of universities, for the state and for society as a whole. At the same time, the desire of many institutions for interactivity and two-way contact of students with a teacher becomes noticeable. The rapid spread of new technologies in the near future is able to realize ideas that today seem unreal.

The weight of the state in the world is determined by the proportion of the use of information technology in the economy of the state. There is a need for a fundamental restructuring of the entire system of training and retraining of personnel in order to ensure its greater mobility, to address the issues of priority training. Vocational education and vocational training should be focused on the training of specialists who are able to ensure progress in the development of their industry. The rapid development of the modern labor market requires a new type of employee: versatile knowledge, excellent special training, an open, inquisitive world view, the ability to adapt to new situations, constant changes, knowledge of foreign languages, computers, new information technologies, and the willingness to develop knowledge to new situations - all this suggests that education should be focused on anticipatory specialist training, on lifelong education, on broad knowledge, on awareness second, that there will be a job for life. Lifelong education is a requirement of any company. The sooner a person has formed the ability of self-education, the more interesting it is for the employer. The loss of jobs, previously perceived as a tragedy, has become commonplace today. The labor market puts a person in a



situation where he is forced to start anew each time, facing new demands. Thus, it is clear that the most important form of self-realization of the individual in the labor market is vocational education. A diploma itself is not sufficient, because it is not converted into wages in the labor market. Business is in great need of specialists, but it is important to have not only formal educational qualifications, such as a diploma, but also real skills, knowledge and skills that meet the standards of the labor market. In addition, a business career is associated with the willingness and ability to learn. Therefore, flexibility and mobility are the basic educational traits of the individual, giving her the opportunity to stay and advance in the labor market and that are most effectively developed on a broad educational basis. Therefore, intensive educational technologies are needed that would maximize the ability of self-learning. The sooner a person develops the ability of self-learning, the more interest he will present to companies in the labor market. Therefore, it is necessary to create new models of education related to real labor market standards, offering modern educational technologies that provide these standards. Only a flexible and mobile specialist, ready for continuous self-study, will have high competitiveness. Such educational technology, providing a high level of development of the ability of self-study, are distance technologies in education.

References

- Qəribli E.A. (2015) Müasir bilik iqtisadiyyatının Alma Materiləri “Azərbaycan Dövlət universitetinin elmi xəbərləri”, 3-cü cild, Yanvar-Mart 2015 səh 79-87.
- Фетисова А.Д.(2015) Дистанционная форма обучения один из важнейших инструментов в сфере образования. Инновационное развитие – от Шумпетера до наших дней: экономика и образование. Статьи и доклады участников международной научно-практической конференции. М.: издательство «научный консультант», С.546-549
- Barbour, M., Archambault, L., DiPietro, M. (2013) K-12 Online Distance Education: Issues and Frameworks. American Journal of Distance Education 27 (1) , p. 2-4.
- Павлова Н.А., Николаев Б.В. (2016). Тенденции развития коммерческого высшего образования в США. Вестник научных конференций. № 9-2. С.88-92
- Полат Е.С., Моисеева М.В., Петров А.Е. (2006) Педагогические технологии дистанционного обучения: Учеб. пособие для студ. высш. пед. учебн. заведений; Под ред. Е.С. Полат. – М.: Академия. Стр 35-40
- Волкова Н. С.(2012). Анализ системы дополнительного профессионального образования России и его роль в современных условиях // Молодой ученый. — №5. — С. 412-415.
- Афанасенко И.Д. (2010). Системный кризис и интеллектуальная безопасность общества. Известия СПбУЭФ. № 4.
- Clegg, S.; Hudson, A.; Steel, J. (2003). The emperor's new clothes: Globalisation and e-learning in higher ed Elliott, C. Using a personal response system in economics teaching. Int. Rev. Econ. Educ. 2003, 1, 80–84 education.
- Shachar, M., & Newmann, Y. (2003). Differences between traditional and distance education academic performances: A meta-analytic approach. The International Review of Research in Open and Distributed Learning, 4(2). Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/153/234>
- Rovai, A.P., Downey J.R. (2010) Why some distance education programs fail while others succeed in a global environment . Internet and Higher Education 13 (3) , p. 142-145.



Modern Educational Technologies and National Interests

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Abstract

As we know, one of the lifelong learning forms, which is the correspondence education, has received a wide circulation in our country. However, we have recently mentioned that the type of education should be adapted to modern conditions. As a way out from this situation, the article analyzed the specifics of the distance and supplementary education in the world and the stages of development. Mechanisms of application of existing educational technologies in Azerbaijan were studied. In order to achieve the goals mentioned in the article, the relevant legislation of Azerbaijan has been prepared and recommendations for institutional reforms have been prepared. In the context of globalization, the development of new technologies has negative effects, though there are positive effects. The strengthening of globalization leads to the inequality of development among countries, the sharp differences in the living standards of the population, the escalation of language, religion, traditions and, ultimately, the weakening of national state institutions. In this case, the protection and development of the state language is of great importance and special attention should be paid to this problem. At the end of the article, we came to the problem from another aspect, and we believe that if we use the right technologies properly and precisely, it can be achieved through the promotion of mother tongue. Our compatriots living abroad will be able to acquire new knowledge and will not forget and develop their mother tongue with effective use of remote training technologies. Millions of our compatriots living abroad will be able to benefit from these advantages. In order to achieve this, it is important to use the modern IT technologies' innovations as well as the effective use of language teaching methods for language development carried out by linguists. We believe that there is a relationship between these two factors, and when analyzing lifelong learning issues, there is a need for two aspects. At the end, it should be noted that we have to analyze the problem from different perspectives and make suggestions.

Keywords: Modern, Educational technology, Interest

Introduction

The deepening of globalization processes and the integration of countries can take up from three to five years. Information systems of the education system and meeting modern requirements are considered as one of the most important priorities of all states and international organizations. In this regard, it is considered appropriate to take into account the traditions of contemporary education in the world. The development of the distance education system that meets the requirements of the globalization process in the world is one of the most important aspects of the development concepts of the states and education policy. At least 4 new technologies are needed to adopt each new generation's labor activity. For this reason, experimental and theoretical knowledge needs constant renewal.

World experience shows that people tend to continually improve lifelong learning continuously (Life Long Learning). Due to the introduction of new technologies in the often changing world, there is a need for continuous education to adapt to these socio-economic conditions. Increasing the quality of part-time education in the country is one of the most urgent issues and it has been talked about regularly. It is known that time spent in part-time education is very limited. Even in many cases, every working student cannot find time for lessons. In the 2017-2018 academic year, the number of students in the bachelor's degree in Azerbaijan was 12,606. At the Azerbaijan State Economic University, the number of part-time students in the 2018-2019 academic year was 2115 people. Obviously, the number of part-time students studying in our country is quite enough. From this



perspective, the application of distance learning can help solve these problems. The highest number of students in the correspondence department is the Azerbaijan State Economic University, Baku State University and the Azerbaijan State Pedagogical University.

Employees apply for this kind of education to get education without leaving work. The negative side of this type of education can be summarized as follows:

- 1) The role of teachers in the part-time education and limited communication with them;
- 2) lack of academic hours;
- 3) limited scientific literature and so on.

These types of disadvantages in part-time education can be solved by providing up-to-date training to distance learning.

These days, education is a great business area in the world. Distant education is an important tool and technology of education in the international education market. Although distant education is profitable, such universities are owned and operated by the state. Distinguished by the fact that the educational form of the 21st century is the most promising, some experts have characterized this type of education as a political atmosphere.

The informatization of education system is considered to be one of the most important priorities of all states and international organizations. Therefore, it is expedient to take into consideration the modern educational traditions gained credibility in the world. The development of distant education system which meets the requirements of global processes taking place in the world is one of the important directions of the development conceptions and educational policy of states.

The development of distant education is the main direction of educational programs and it is defined as the priority in the item 126 of the Maastricht Treaty of the European Union. This direction is an important part of state policy in large states and international agencies, including our Republic. Therefore, it's possible to note the following Statutes and Decrees of the President of the Azerbaijan Republic:

- 1) A State Program on reforms in the higher education system of the Azerbaijan Republic in 2009-2013s;
- 2) "Azerbaijan 2020: Looking into the Future" Development Concept which had been submitted by the Decree dated December 29, 2012 of the President of the Azerbaijan Republic;
- 3) Action Plans of declaring 2013as "The Year of Information and Communication Technologies" in the Azerbaijan Republic.

In our opinion, the preparation of the theoretical - methodological bases and the investigation of development trends of distant education are very significant.

There is no common definition of distant education in the world today. The terms, such as "Distance Education", "Learning" and "Distance Learning" are mainly used in English speaking countries. The term Distant Education is mainly widespread in the countries of CIS. The word Learning means "to learn", i.e. to study independently in the Azerbaijan language. It expresses the meaning to study independently via either internet or various technical means "Distant Learning" and "Learning" are accepted as the forms of Distant Education for English-speaking authors. We want to take into your consideration that in the usage of the expression "open and distant learning" the word learning is used. Here we mean to learn without teachers and independently. The meaning of Distant Education is: to learn and to master higher education programs while making use of modern equipment's. We should note that teachers help to students to master specialists and professions in modern conditions. Therefore, Distant Education system is adult education and is a component of "Distant Learning" and "Distant Education".

According to some specialists, "Distant Learning" is the preparation of certain short-term training courses.



So, education is translated as – training, learning, reading and so on in some dictionaries. A Russian word «обучение» is accepted as to study in the form of distant education.

The basic principles of distant education:

In Distant Education, everyone can read at universities without losing time. Here, the student has the principle of free learning. The education is structured so that it can be separated from the teacher by time or distance, and they can communicate with the trainee, the teacher, and the telecommunications equipment at any time. Distant education in any area of education is possible. In Distant Education, teacher assignments, tests, and supplementary materials are sent to the student, and the student will perform all the tests and studies and send them to the teacher. Classes continue on this principle by the end of the semester.

Distant Education, which is widely used all over the world, is still not widely spread in our country. The reason for this is that people do not have education in this field, the lack of appropriate technical basis and jobs that meet the market conditions. In general, distant education has many advantages:

- So many parents do not risk sending their children away from them, or the family's financial ability to study abroad is insufficient.
- The ability to read and work
- Compared to visual education, it is a suitable payment
- Free education system
- Chance to pay with your credit card system
- Classes do not suit their own capabilities

Today education and its quality is very important. In fact, many young people in the country are unable to benefit from the right to education because of personal problems. Distant education system has advantages in this regard. At a time when technology is rapidly developing, distant education is also accessible and there is a necessity. This form of education can also be seen as support for formal education. Distant education is a new form of education for Azerbaijan. Experts believe that in order to implement distant education in the country, first of all, it is necessary to apply the world experience. In many foreign countries, there are special universities operating in such educational systems.

There is a fairly large history of this kind of education. About 1728, the concept of distant education has remained unchanged, but communication has changed. At that time, Kaleb Filips was the first organizer of distance learning, announcing "accounting and short-term correspondence courses" in Boston. The development of regular postal service has created a fertile ground for distant education. Thus, this communication, non-service remote communication connections was unstable and slow. The Philippines ad is in the following form:

"Knowledge levels of citizens who want to get these occupations will be the same as the level of students in Boston after receiving a few lessons".

The new stage of distant education has been linked to the active movement of the English language towards democratization in the world. In 1840-1890, Sir Isaac Pitman mailed the letter of delivery to the postal delivery price, that is, writing letters for short periods without profit. According to Sir Pitman, democratization of society depends on the ability of people to obtain higher education regardless of their political convictions or their social status.

Based on the experience of the International Correspondence School in 1890, the reason for the establishment of a distant education school in 1880 was to provide career demands for miner's immigrants. They wanted to be a brigade to avoid frost, but education was required.



About a million students have been registered for eighteen years as a result of powerful advertising. This was a great indicator for the industry and the country, given that the US population at that time was 75 million, but the results were unexpected. Thus, 83.4% of the students failed to pass through 1/3 of the course and only 2.3% were awarded the title of graduate. One of the ICS's managers wrote that they were freed from classes because they did not have self-motivation and practical knowledge. One hundred years ago, it became clear that distant education was self-educational and knowledge gained by individuals with a high culture. Radio and Television Education was the first prototype of "divested universities." New communications have led to new experiences in distant education. The development of the radio has led to the fact that students could sit at home and listen to lectures like in the university building. Clearly, issues and lectures are still being sent through paper, but radio broadcasts communication between student and teacher. The Pennsylvania State University was the first to broadcast its training on radio in 1922. But in 1934, the first television channel of the University of Iowa began to work. By the way, let's note that the channel continues to operate till today.

During the rapid development of technology, in the early 1970s, again, the universe of ideal higher education ideologies fired. In the US in the mid-1960s, new methods of distant learning emerged. The University of Experiments (UECU) sponsored by prestigious sponsors at Universities and Colleges that have implemented new techniques. In 1970, well-known universities were included in the community. For those years, the concept of Community Revolution (University without the University Building, abbr UWW) has been published in today's criteria:

1. There were no age restrictions for admission;
2. Students should be involved in the creation and improvement of the curriculum;
3. Maximize the self-study;
4. Adapt curriculum to course of study according to individual circumstances and needs of students;
5. It is important to involve experienced teachers in these or other areas;
6. Free access to UWW network in-house training materials;
7. Determination of new methods of assessment because of the lack of objectivity of the old evaluation methods (tests, attendance in lectures).

As you can see, this project can be regarded as a university, but a few universities have attempted to develop distant education and training programs. Unfortunately, during the twelve academic year, only a thousand students were able to earn a Bachelor's degree. However, there are many positive aspects of this project, since the age limit was removed from the universities and the opportunity to study at the age of 30 became the reason for the number of higher education graduates.

The British Open University, founded in 1969, has revolutionized innovation in distant education. "Open" means unrestricted access to education. Without regard to the level of knowledge, they were admitted to the university without the certificate of secondary education, but those who desired to read. Another indicator of openness was the distance from teaching, ie from countries, without leaving work. Most importantly, because the university is a state-owned, graduates receive a diploma (accredited).

In 1967, the British Minister of Education and Science instructed the University to prepare its work plan and charter. Firstly, it was necessary to study the demand and then to define functions and goals. The number of students from different classes is predicted.

The university was admitted to the age of 21 by the year 1986. Open University was called the second chance university. Designed for 18 year olds. There is no need to take any exams for admission to the university, and there is no need to certify that a secondary school is to be rescued. The main focus of the university was that it was a high-quality training material for intensifying short-term teaching. Open University is a supreme governing body. Students, representatives of the Ministry of Science and Education, the BBC and the royal



community are elected members of the council. The members of the Board are elected six times a year, solve the issues of personnel and financial issues. The Jones International University, established in the US in 1999, was the first state-accredited distant university. In addition, the university was established on the basis of television courses broadcast by 30 advanced universities.

The extensive education in the former Soviet Union is regarded as a form of distant education. For example, academician Kruglov believes that "distant education is similar to education in correspondence."

The form of correspondence education of the USSR is the first long-distant education prepared by the state. This experience has been used in the former socialist camp and has played a major role in training millions of specialists.

Distant education - correspondence education in the former USSR began to be formed in the 20s of the last century. In the 1926-1927 years, at the faculty of correspondence of Moscow State University, about 37,000 students were trained. At the beginning of the 1930s, correspondence education was widely used in all the leading universities of the USSR. The government was trying to raise the professional level of the workers and peasants. Students first came to the university to get acquainted with the course, after which they took textbooks and closely interacted with teachers to master them. At the end of the year, they returned to the university and exams.

Experience in the USSR shows that only educated and stubborn students were gaining prestige in teaching. Such deficiencies can be solved by providing modern equipment's by converting the correspondence education into distant education. The experience of developing countries, for example Turkey, Israel, India, Thailand, is of great interest to us. Thus, in Israel and Thailand there is a public open university (distant education). Universities offer undergraduate and graduate degrees.

The reason for the great success of higher education institutions in distant education should be sought in its paid education. For example, the budget of the Anatolia University of Turkey today is \$ 1 billion. close to USD. Although this university is a state university, it does not receive funds from the state. 400-500 thousand Turks living outside Turkey are studying there, and if they pay 1200-1500 euros, this year 600 mln. is equal to euro. Anadolu University's revenues in this area are aimed at the comprehensive development of education in the country. The University freely funded textbooks for first-graders. In general, distant education universities have a very rich budget that can be considered a kind of support for the country's economy.

Nowadays, education in the world is a great business area. Distant education is an important tool and technology of education in the international education market. Experts believe that by 2015, 80% of world universities will be educated on this technology. Although distant education is profitable, such universities are owned and operated by the state. Since the 21st century is the most promising educational form in the world, some experts also describe Distant Education as a political tool.

According to some studies, the drop in demand for formal courses has dropped since the last crisis in the world economy, but demand for Distant Education has increased. This is largely explained by the fact that the right to education in Distant Education is low, but consider that the demand for Distant Education is growing steadily over recent years. Thus, according to IDC's research, 1/3 of the European education market is based on Distant Education. In Turkey, 50% of the students are studying through Distant Education. 13-14% of students across the world study at distant Gandhi University in India. Corton Consulting estimates that the turnover of distant education will reach 50 billion by the end of this decade. However, according to the estimates of the United States National Institute of Standards and Technology, the US has already reached that amount.

(According to study by Ambient Insight, the growth rate of distant education in the CIS countries is more than 20%. This indicator is the record for the world.



Method

Method of the research:

analysis and synthesis, comparative, deduction and induction.

Findings

Application and development of distant education can help to solve the following problems:

- The development of distant education enables people from all over the country to get education, generally increasing the number and quality of people with higher education among the population and opens an opportunity to rise to the level of developed countries (Israel, India);
- After the launch of Azerbaijan's communication satellite into orbit, the quality of the Internet and communication system will increase. Therefore, Azerbaijanis who live abroad (in Russia, Georgia, Southern Azerbaijan, etc.), using the advantages, allows them to grow their education and profession without coming here;
- Structurally increases the country's industry power by addressing the problem of unemployment (by focusing on the necessary professions);
- Increasing the quality of part-time education to the level of full-time education;
- Can play an exceptional role in establishing a sustainable information society;
- It leads to the integration of Azerbaijani education and science into world science and education.
- Proper, efficient use of distance learning technologies will serve the development of our compatriots living abroad, at the same time not forgetting their mother tongue by getting new knowledge.

Results, Conclusions and Recommendations

The following results can be concluded from the distant learning form:

1. Open and distance education, eLearning, distance learning, distance education, and part-time education - these are synonyms and forms of distant education.
2. There is a need to make appropriate shift to the legislation for the development of distant education. The Distant Learning Experience of most countries points that government-driven management (UK, US, Israel, India, Philippines, etc.) is commercially viable.
3. In order to provide distant education, all universities are unwilling to acquire the appropriate material base. So, the experience of the United States shows that several universities may unite and use telecommunication equipments.
4. We consider necessary to organize the state's open distance learning university. It was the result of investigation for the development of distance education in our country, first and foremost, you need to make changes to the legislation. So the legislation requires a license for the application of distance education, but no licensing procedures have been established. We believe that on the basis of international experience it is necessary to prepare relevant rules in a short time.

References

- Qəribli E.A (2015) Müasir bilik iqtisadiyyatının Alma Materləri “Azərbaycan Dövlət universitetinin elmi xəbələri”, 3-cü cild, Yanvar-Mart 2015 səh 80-87.
- Mayoka K. G. (2014) How can e-learning integration be realized? An exploratory study in higher education institutions. Asian Journal of Computer Science and Information Technology. No. 5, Vol. 4, p. 164–169.
- Burimskaya D. V. (2016). Didakticheskie vozmozhnosti tekhnologii WEB. 2.0 v protsesse prepodavaniya angliyskogo yazyka. In: Informatsionnokommunikatsionnye tekhnologii v lingvistike i mezhkulturnoy kommunikatsii: coll. of art. Moscow, Iss. 7. Pp. 97–101



- Громова Т.В.(2011) Теория и технология подготовки преподавателей вуза к деятельности в системе дистанционного обучения: Автореф. дисс. ... докт. пед. наук. – Самара, 2011 [Электронный ресурс]. – Режим доступа: <http://nauka-pedagogika.com>
- Шарова С. В. (2015) Тенденции развития российского бизнес-образования. Инновационное развитие – от Шумпетера до наших дней: экономика и образование // Статьи и доклады участников международной научно-практической конференции. М.: издательство «научный консультант» 2015. С.546-549
- Зайцева Е.А. (2015).Система образования в США: структура и особенности// Theoretical & applied science. 2015.№ 04 (24) С. 218-220
- Кузьминых Ж.О. Кузьминых Ж.О.(2015) Современные тенденции интернационализации высшего образования в Европе и США// Современные проблемы науки и образования. 2015. №3. С.524-527
- Гончарова, Н.А. Компетентностный подход в условиях модернизации высшего профессионального образования и формирования инновационной экономики в России / Н.А. Гончарова // Ученые записки. Серия «Гуманитарные и социальные науки». - 2011.- N 3. С92-95.
- Open and distance learning. Trends, policy and strategy considerations. Division of Higher Education, UNESCO 2002, 95 p., p. 65-70. [rfgovernmentdecisions/archive/2008/1/17/2982752.htm](http://www.unesco.org/education/odl/governmentdecisions/archive/2008/1/17/2982752.htm).
- Taylor, J. (2001). Fifth Generation Distance Education. Higher education, Report No. 40, 1–8.
- Tuckett, A. The rise and fall of life-wide learning for adults in England. Int. J. Lifelong Educ. 2017, 36, 230–249.
- Ni, A. Y. (2013). Comparing the effectiveness of classroom and online learning: Teaching research methods. Journal of Public Affairs Education, 19(2), 199–215



Self-Learning of Academic Staff as an Element of Lifelong Education: the Role of Development of Assessment Competence

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Abstract

The purpose of the study is to substantiate the thesis on enhancing the role of the evaluative competence of academic personnel in the context of new tasks of universities in the light of the requirements of the knowledge economy. The statement about the need for continuous education of all participants and stakeholders of the educational process is generally accepted (European Forum - EFFECT, 2018; Little & Wolf, 1996). The analysis and conclusions are made on the basis of data from the author's survey of the professional motivation of developing skills for designing and using objective test knowledge gauges for students. The survey involved more than fifty subject teachers of economic and humanitarian profile of an economic university (UNEC). The analysis of the survey result allowed us to outline the optimal forms of systematic retraining and self-education of academic personnel for the development of professional, including appraisal, competence in order to improve the quality of education in a rapidly changing competitive educational environment.

Keywords: Academic staff, Assessment competence, Reflection, Self-development, Self-learning

Introduction

The modern world is changing dynamically, new technologies, discoveries are emerging, technology is being modernized. All this encourages a person to improve their knowledge and skills in order to keep up with the times. Today, lifelong learning is necessary for every teacher who wants to stay in demand, theoretically and practically prepared (Building a high-quality teaching profession, 2011). A knowledge-based economy is developing at a rapid pace, so people face some difficulties. In order to overcome them, a person needs to acquire new knowledge and skills. Educating people requires a broader diffusion of a new model of education and training — the concept of lifelong learning. Lifelong learning has the following characteristics (European Forum - EFFECT, 2018):

(1) in the center of learning - creativity, practice, analysis and synthesis of knowledge; (2) teachers direct students to sources of information; (3) in the process of learning follow individual plans; (4) teachers themselves learn throughout life, expanding their professional knowledge and skills; (5) training is carried out in the process of implementation of some activity; (6) learning takes place in groups and people learn from each other; (7) assessment of the results is carried out to develop further strategies and possible areas of study; (8) people have access to lifelong learning (Lifelong Learning in the Global Knowledge Economy, 2003). As can be seen from this list, all the conditions directly take place in the process of developing the competencies of university professors.

The study consisted of two stages: 1) identification of the development needs of the assessment competence and 2) assessment of the degree of mastery of the test technology after the course. In the process of training and research of participants of training, the role of assessment activity as a feedback of the pedagogical process and objective certification, as well as the value of test competence in a variety of promising forms of adult education are noted. Analysis of recent studies (Promotion of Teacher effectiveness. Annotated Bibliography, 2015) shows that the majority of university teachers use traditional systems of control and evaluation of students' learning activities, experiencing difficulties in developing, adapting to the educational process innovative assessment tools aimed at assessing students' individual achievements and developed professional competencies.



Object of study: the competent activities of a university teacher in teaching and assessing students' knowledge as the result of joint efforts.

Subject of research: (self) training of teachers for the development of evaluation competence in the educational process of the university.

The hypothesis of the research was made by the assumption that the proper preparation of the teacher for competent participation in the assessment activity will be successful if the necessity of constructing an incentive mechanism for the university teacher education focused on developing their methodological and evaluation competence is justified. Various similar approaches have been proposed in (Kellaghan & Greaney, 2001; Gallagher & al., 2011).

The solution of the tasks of the work led to the choice of research methodology: analysis of scientific, methodological literature and policy documents, observation during training, questioning, polling, ranking, data processing methods, modeling (Theory and Method in Higher Education Research, 2015).

Research concept

The main idea of our approach is that the development of the assessment competence of teachers creates an opportunity not only to improve the assessment tools and procedures in existing practice, but also to recognize and evaluate the suitability of new innovative technologies in relation to a specific educational environment. In the course of the study, one of the possible mechanisms is established with the feedback of development self-reflection based on the correlation with the student assessment of the pedagogical activity of the academic staff of the university. The author in his study relies on well-known classical and modern works on systems and processes of evaluation in higher education (McClarty & Gaertner, 2015; Hendrik & Yael, 2009; Morcke & al, 2013). In our opinion, assessment plays the role of the control and correction function of the educational process management system; therefore, the role of the competent participation of teachers in this process cannot be overestimated (Johnstone & Soares, 2014).

About competency and competence. According to the definition variant presented in the EEF Glossary of Terms (Glossary of Labor Market ..., 1997), competency is defined as: "the ability to do something well or effectively, compliance with the requirements for employment, the ability to perform special labor functions". It also notes that "... the term competence is used in the same meanings. Competence is usually used in descriptive terms "(ibid., P. 63).

At the start of the UNEC Summer School "Developing Competences of Teachers for the Development of Teaching and Certification Tools" held in May 2019, 52 school participants were interviewed at the start of the program. The purpose of this (first) survey was to establish the need and motivation for the development of methodological, including evaluation competencies, as well as to establish the potential for developing evaluation tools. As a field of development of competence assessment was chosen as a system for assessing the achievements of undergraduate students at UNEC on the basis of test tasks developed by subject teachers.

The problem of the need to develop professional competencies in the field of testing resulted from the growing gap between the updated content and training technologies, on the one hand, and the means of assessing students' achievements, on the other hand.



If progress has been observed in the renewal of curricula, basic and auxiliary teaching aids at UNEC, the sphere of development of the fund of evaluation funds may be somewhat behind the agenda.

The aim of the study is to substantiate the thesis on enhancing the role of the evaluation competence of teaching staff in the context of new tasks of universities in the light of the requirements of the knowledge economy. The statement about the need for continuous training of all participants and stakeholders of the educational process is generally accepted. The traditional model of retraining and advanced training of the faculty, due to its cost and inertia, in many respects does not meet the educational requirements of the knowledge economy.

Data analysis and preliminary conclusions are made on the basis of a survey of professional motivation for the development of training skills and the use of objective tests assessing student performance. More than fifty general professional and humanitarian teachers of the University of Economics (UNEC) took part in the survey. The study consisted of two stages: 1) identification of the development needs of the assessment competence and 2) assessment of the degree of mastering the testing technology after the course. In the process of training and research participants in training notes the role of assessment activities as a feedback of the pedagogical process and objective certification, as well as the value of test competence in various promising forms of adult education.

Analysis of the survey results allowed us to outline the most optimal forms of systematic retraining and self-education of teaching staff for the development of professional, including appraisal, competence in order to improve the quality of education in a rapidly changing competitive educational environment. In particular, on the basis of the identified sustainable preferences of the respondents, a network organization was proposed to develop the evaluation competencies of the academic staff, as well as the forms of motivation for preparing qualitative assessment tools.

Historically, evaluation in higher education has served several roles (Postlethwaite & Kellaghan, 2008): the motive and result of educational activities; monitoring or ensuring accountability in the educational system; professional selection; certification confirming the completion of a standard course of study; competitive selection for admission to the school; improving the quality of education by diagnosing its results, etc. Among them, the role of evaluation as a means of improving the quality of education, as well as a method of reflexive control, is of particular importance for university teachers. In this article, by the example of the competence of test assessment, only those means of evaluating students' educational achievements, which, because of their effectiveness in improving the quality of educational activities, are most often used in university practice, will be considered.

The development of the evaluation competence of the academic staff of universities in line with the requirements of continuing education is important for several reasons:

1. Assessment competence is interrelated with other professional competencies of university teachers: a lag in one area retards the development of other abilities and skills (Romiszowski, 1999);
2. Expansion of additional and distance education, various forms of self-study and self-development, puts forward the task of developing a modern fund of effective evaluation tools congruent to innovative educational technologies, including e-learning (Guasch & al, 2010);
3. Along with, instead of traditional forms of advanced training and retraining of teachers in the form of courses, schools, internships, innovative methods of self-development and self-education using the potential of information media are becoming more relevant and in demand (Minota, 2011; Bawane & Spector, 2009).



Second survey among the same participants was conducted at school closure in order to assess the effectiveness of the training program, as well as to identify the motivation and preferred forms of continuing to improve professional competence. Progress in the development of assessment competence was established using the question of an approximate growth of knowledge and skills in test technology, as well as comparing the correlation of advantages and disadvantages of test measurement of students' knowledge before and after the school closure program.

For the purpose of the study, the data obtained in the course of two surveys were supplemented with indicators of administrative data from the differential wage system for the same teachers, including student assessments of the success of educational activities. The goal of involving both rating indicators and students' opinions in the process of analyzing data was to try to illuminate the reflexive component of teachers' self-assessment by taking into account student participation in the formation of the average assessment of the indicator of the success of teachers' annual pedagogical work. Such feedback in the system of assessing the dynamics of competence and the annual scientific and pedagogical activity is proposed for the first time.

At universities of leading countries, evaluation competence in the system of requirements for teacher professional qualifications invariably plays an important role. Thus, in the system for determining the quality of higher education in Australia (Training and Assessment Qualifications and Competencies, 2018) in the section AQTF Essential Standards for Registration, Standard 1, Element 1.4. It is stated that people who have the competencies of training and assessment given by the quality committee can teach at the university and if the teacher is obliged to carry out the assessment of students, he should have the following three competencies: (1) planning and organization of training; (2) competence assessment; (3) participate in the validation assessment.

A number of authors (Shadrikov, 2007; Isaeva, 2014) propose not only to classify the term "evaluation competence" as an element of pedagogical culture, but to single out a separate competence and include "knowledge of the functions of pedagogical assessment; knowledge of the types of pedagogical assessment; knowledge of what is to be assessed in teaching activities; proficiency in pedagogical assessment methods; the ability to demonstrate these methods with specific examples; the ability to move from pedagogical assessment to self-assessment".

Our approach develops this interpretation, considering that the possession of objective assessment methods not only goes beyond methodological competence (Buiskool & al., 2010), but also involves the mastering of knowledge and skills of subject-oriented teachers's self-assessment of the current and final level of subject knowledge and skills (Gibbs & Coffey, 2004). It is in the case of full-fledged participation of teachers in such work that reflexive motivation of professional self-development can arise (Erault, 1995), when a teacher can not only quantify the final results of his efforts, but also make adjustments to the educational process based on the results of the assessment, as well as focus students on elimination of gaps in mastered knowledge and skills. Finally, possession of the evaluation competence, going beyond the pedagogical process, helps teachers to correctly navigate in innovative technologies of teaching and assessment (Guasch & al, 2010; Buiskool & al., 2010; Bawane & Spector, 2009)

An objective assessment tool widely used at Azerbaijan universities is a test method of knowledge assessment (SECRA, 2018). Many teachers have considerable experience in developing subject tests, however, there is a tendency to not participate in the assessment process, which leads to difficulties in timely updating the test task bank, even if the program content has been significantly updated.

The problem of the development of professional competence of university teachers is being actualized in the conditions of the rapid development of university education systems and technologies and the strengthening of the



role of teachers as one of the central figures of the educational process. In addition to expanding the composition and content of professional competencies of academic staff (Guasch & al, 2010), the need for continuous development of the system of competencies emerges. In this system, an important role is played by the teacher's assessment competence, which, in addition to being able to adequately assess the success of student learning, as a result of including teaching efforts, allows evaluative judgments to be held about the professional success and performance of teachers.

Thus, the improvement of the teacher's assessment competence as a tool for the self-assessment of professional competencies, acts as a means of diagnosing and regulating the flexible development of the necessary skills and skills in the context of dynamically changing demands and requirements for high-quality higher education. Note that even in the case where the teacher does not directly carry out the development of assessment tools (tests, case studies, essay, etc.), however, knowledge of the tools and technologies for assessing awareness allows to detect weaknesses in the training technology, and directional improvements to the entire training toolkit.

Note that some institutional forms of development of teaching competencies (such as advanced training institutions or summer schools) do not quite cope with the development objectives due to the inertia of the response to educational innovations (Buiskool & al., 2010).

To prevent a gap between the competencies required in the labor market and those formed in the learning process, it is necessary to build an information environment for assessing and developing the competences of teachers. The system of assessment and self-assessment of teachers' competencies should be built on the principle of a community of practitioners, for the interchange of experience and knowledge.

A number of authors (Desimone, 2009; Johnstone & Soares, 2014) believe that to improve the methodological approaches to the study of the development of teachers' professional competence and its impact on the effectiveness of student learning, as well as to establish the factors of reflexive self-development, it is necessary to conduct versatile multi-dimensional studies in which to maximize the extraction of useful information from both teachers and students. Generations of students change more often than generations of teachers, so teachers' self-development should, in a methodological and evaluative way, be ahead of the change in the typology of students' needs and expectations (Trigwell & al, 1999; Wyatt, 2011). In our situational survey, only a limited range of questions is put, aimed mainly at illustrating the possibilities and prospects of making more comprehensive research in the field of the formation and continuous development of professional competencies of the academic staff.

Method and data sources

Description of the data. 16 men (30.8%) and 36 women (69.2%) took part in the survey and analysis. According to the status of the main university employment, of the 52 respondents, 40.4% were ordinary teachers, 13.5% were heads of departments leading selective teaching, and finally, 46.2% were an initiative group of teachers who made up a group of volunteers of the movement for developing competencies and improving the quality of education. 69.2% of study participants have a doctorate degree, the remaining 30.8% have a master's degree or are applicants. The modal group consisted of mature teachers with work experience of 10 and 20 years (42.2%), the other two groups of 28.8% are young teachers with work experience up to 10 years and the older group with a teaching experience of over 20 years.

Indicator of the level of evaluation competence. The largest group of respondents (36.5%) has experience in developing tests for at least three academic subjects. A quarter of the surveyed (25%) accounted for tests in two subjects. 10 respondents (19.2%) made up only one subject in the previous period. The same number of respondents



previously did not participate in the development of tests. Despite the fact that the majority had experience in writing tests on the subjects taught, however, this work was carried out relatively long ago (8-10 years ago), and due to the lack of standards and guidelines, could not meet the classical requirements as testing theory (Crocker L. & Algina J. 2010), and the current industry test rules for measuring students' knowledge. The developed test kits did not pass the procedures of approbation and validation, therefore their compilers could not judge the effectiveness of the assessment of students' knowledge.

The main question and hypothesis

1. Question: How does the propensity for self-education of teachers in the process of lifelong education, along with other factors, depend on the level of development of their assessment competence?
2. Hypothesis 1: Status indicators and elements of competition in the form of more or less active participation in a differentiated wage system (DSS) affect the motivation for self-development and the development of new tools for assessing students' achievements.
3. Hypothesis 2. The reflection of one's own competence can be assessed using student assessments of teachers' professional qualities in relation to the objective indicators of the results of student learning success.

The source of data for the study was the following sets of information:

- a) a sample of administrative indicators for a differentiated wage system (DSS),
- b) data from the survey of participants of the summer school "assessment of the need for the development of assessment tools" (May 2019)
2. The survey data (52 participants of the summer school - UNEC employees) were obtained in 2 stages:
 - a) an initial study of the needs for the development of evaluation competence
 - b) assessment of the impact of training - measurement of the degree of growth of competencies.

Data sources & analysis

The SPSS data-base file contains 52 entries of 40 variable values related to:

- A) status;
- B) experience;
- C) development needs;
- D) preferences;
- E) returns (self-) learning;
- F) assessment of student performance;
- G) student's assessment of the teachers;
- H) teacher rating in the DSS - Differentiated Salary System.

Descriptive statistics and primary results

Samples of variables for the purposes of disclosing the proposed approach are indicated by s - First (start) survey, y - Second (final) survey, and x - Administrative DSS data, respectively.

Table 1. Descriptive data for categorical variables

Name and label of categorical variables	Values of variable	Column N %
First (start) survey (n=52)		
s_0 gender	1 male	30.8%



	2 female	69.2%
s_1 Summer school status	2 academic	40.4%
	3 management	13.5%
	4 volunteer	46.2%
s_2 Teaching subjects profile	1 general	44.2%
	2 specialization	42.3%
	3 humanitarian	13.5%
s_3 Position	1 teacher	30.8%
	2 senior teacher	23.1%
	3 docent	46.2%
s_4 Scientific degree	1 master or candidate to doctor degree	30.8%
	2 PhD	69.2%
s_5 Pedagogical experience (<i>grouped</i>)	1 up to 10 years	28.8%
	2 10-19 years	42.3%
	3 20 years and more	28.8%
Second (final) survey (n=52)		
y5_1 5. How come your expectations from the summer school program?		
1. Preparation of syllabus	1 highly	67.3%
	2 moderately	15.4%
	3 in a low degree	7.7%
	4 no answer	9.6%
y5_2 2. Preparation of auxiliary means	1 highly	30.8%
	2 moderately	32.7%
	3 in a low degree	17.3%
	4 no answer	19.2%
y5_3 3. Preparation of tests	1 highly	63.5%
	2 moderately	28.8%
	3 in a low degree	3.8%
	4 no answer	3.8%
y5_4 4. The general benefits of the Summer School	1 highly	86.5%
	2 moderately	11.5%
	3 in a low degree	0.0%
	4 no answer	1.9%

Baseline data were tested for reliability and suitability for analysis. Estimates for this variable are obtained: Cronbach's Alpha is within acceptable limits (.293-.325 and .539-.595)

Table 2. Reliability analysis

Reliability Statistics			
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized	
Teaching subjects profile	Cronbach's Alpha	Items	N of Items
general	.293	.595	4
specialization	.324	.584	4
humanitarian	.325	.539	4

Table 3. Needs assessment

11. Which area would you like to expand your methodological experience?	Column N %



<i>(multiple answers)</i>	
11.1. teaching materials	51.0%
11.2. testing and implementation of tests	25.5%
11.3. other measurement methods of knowledge	43.1%
11.4. another	39.2%

Approximately only one in four expected to expand the experience of drawing up and applying tests in the learning process, which indicates sufficient awareness, and judging by the answers to the next question about sufficient experience in test development (86% of respondents have been doing this in the last 5 years)

Table 4. Experience in preparation of teaching and methodical and evaluation materials

7. Preparation of teaching and methodical and evaluation materials in the last 5 years	Column N %
7.1. textbook, handbook, practical, scientific article	78.0%
7.2. syllabus, terminology, translation work	80.0%
7.3. methodical instructions, concepts and presentations	68.0%
7.4. tests (including their correction)	86.0%
7.5. exam questions, cases.	40.0%

At the end of the Summer School, most of the participants believed that their expectations were largely met and were surpassed, since many participants in the previous two such schools had the opportunity to compare the returns from participating in them.

From table 6 it is clear that with the possibility of choosing several answers to the question “Which terms of summer school?”, Teachers of humanitarian subjects, as well as those with work experience of 10-19 years, had more expectations. But the majority considered it more important (43.5 - 66.7%) to put the training materials in order first, and this is quite logical, since high-quality sources (programs, manuals, manuals and instructions) are needed to compile quality tests (63.5%).

Table 6. Expanding methodological experience across gender, subject profile and experience

11. Which terms of Summer school would you like to expand your methodological experience?	Gender		Teaching subjects profile			Pedagogical experience		
	male	female	general	speciali- zation	humani- tarian	up to 10 years	10-19 years	20 years and more
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
11.1. teaching materials	56.3%	48.6%	43.5%	54.5%	66.7%	53.3%	50.0%	50.0%
11.2. testing and implementation of tests	18.8%	28.6%	26.1%	13.6%	66.7%	20.0%	31.8%	21.4%
11.3. other measurement methods of knowledge	37.5%	45.7%	43.5%	45.5%	33.3%	66.7%	27.3%	42.9%
11.4. another (<i>expanding program</i>)*	31.3%	42.9%	43.5%	40.9%	16.7%	40.0%	40.9%	35.7%

* - author's comment: the proposal to include other issues in the summer school programs.

Table 6 presents a comparison of the expectations of related groups from the summer school program activities. Increased interest in the development of evaluation competence in the format of test and other measures of student learning is more pronounced among female teachers than male teachers, and among young teachers with 10 years of experience, there is some skepticism about the test technology compared to its alternatives (20 % versus 66.7%). In addition, there are significantly more expectations (every two of three) of the development of test competence among



humanities teachers than among general professional and special education teachers. The latter, in their answers, explain this by the laboriousness of mastering test technology and developing test kits in the absence of any incentives.

Table 7. Expectations across the gender, subject profile and experience

	gender		Teaching subjects profile			Pedagogical experience			
5. How come your expectations from the summer school program?	male	female	general	Speciali- zation	Humani- tarian	up to 10 years	10-19 years	20 years &more	
	%	%	%	%	%	%	%	%	
1. Preparation of syllabus	50.0%	75.0%	60.9%	72.7%	71.4%	53.3%	72.7%	73.3%	
2. Preparation of auxiliary means	25.0%	33.3%	30.4%	31.8%	28.6%	26.7%	27.3%	40.0%	
3. Preparation of tests	75.0%	58.3%	60.9%	68.2%	57.1%	66.7%	50.0%	80.0%	
4. The general benefits of the Summer School	81.3%	88.9%	82.6%	90.9%	85.7%	86.7%	90.9%	80.0%	

As can be seen from the table presented on average self-assessments of the growth of the level of test competence, on average, the highest increment of knowledge and mastered skills was observed in the technologies used in testing (55.9%). A noticeable increment is observed in other areas of the test technology (42-49%).

Table 8. Correlation matrix (fragment)

	1	2	3	4	5	6	7	8	9	10	11	12	13
Summer school status													
Teaching subjects profile	.117												
Position	-.011	.047											
Pedagogical experience	-.095	.268*	.821**										
8. ... prepare test items?	.012	.088	.387**	.424*									
1. Preparation of sillabus	.025	-.041	-.040	-.084	-.094								
2. Preparation of auxiliary means	.043	-.178	-.143	-.181	-.113	.237*							
3. Preparation of tests	-.290*	-.011	-.085	-.057	.098	.285*	.183						
4. The general benefits of the Summer School	-.225	-.122	.158	.100	.030	.063	-.009	.287*					
1. Test concept (%)	.108	-.120	.085	.098	.045	.316*	.297*	-.093	.009				
2. Test items and sets	-.006	-.077	.062	.110	.012	-.221	-.230	.028	.029	.810*			
3. Test item design	-.014	-.006	.037	.073	-.017	-.229	-.212	-.036	-.024	.840*	.807*		
4. Technology used in testing	-.116	.008	.044	-.026	-.166	.239*	-.198	-.078	.176	.348*	.432*	.477*	



5. Analysis and evaluation of							-							
14 tests	-.167	.074	.156	.123	.062	-.181	.414*	-.049	.143	.614*	.634*	.659*	.690*	
Annual academician							*			*	*	*	*	
15 score	-.259*	-.076	.334**	.337*	.245*	.225	.101	-.174	.117	-.058	.011	-.019	.053	
Share of student				*										
16 response	.176	.550**	.080	.199	.039	.020	-.090	-.101	-.080	.016	.126	.190	.069	
Students														
Success													.356*	
17 indicator	.128	.078	.059	.001	.112	.062	-.082	.083	.153	.161	.111	-.038	*	

The student success indicator is significantly but weakly correlated with Analysis and evaluation of tests (%) at the level of 0.257 *. The indicator of relative activity of students (Share of student response) in evaluating their teachers also weakly correlates with the Annual academician score, apparently having a weak effect on the growth of the DSS rating of the teacher, who conducted training in this particular subject with this group of students. A stronger link (0.598 **) is found between the activity of students (Share of the student response) in the evaluation of their teachers, and the assessment itself (Students score (percent)) in percentage terms. This means that there is a tendency: the more students evaluate a teacher, the more high a grade is given by them. Thus, a higher assessment of the teacher is a reflection of the recognition of his professional competence, which is also expressed in more active participation in the assessment of the teacher. Note that the ratio of students is selective depending on the profile of the subject (correlation -.550 **). Thus, the average grade for teachers in general subjects (77.2) is slightly lower than the average marks for teachers of special and humanitarian subjects (81.76 and 82.32).

From the answers to the question number 7 "5 years?", It can be seen that the majority of survey participants have been active for the last 5 years in the development of teaching materials, but because of systematic and episodicity of this work, it had little effect on the quality and learning outcomes of students, as well as on the growth of the methodological and evaluation competence of UNEC teachers. Most likely, the development of competencies occurred due to the accumulation of teaching auditorial experience, rather than targeted training and retraining programs. Similar studies related to student reflection of teaching competence in various productions are reviewed in works (Mah & Ifenthaler, 2018; Leigh, 2010; Adel & Zitouni, 2017).

As can be seen from the correlation table between the student assessment and the teacher's annual total score in the DSS system, there is a noticeable dependence of the final grade on the average opinion of the students who have spoken about the teacher (note that students voluntarily rate the teacher anonymously through the student's individual office on the university's website before passing the subject of the teacher being evaluated).

At the same time, the relative activity of student groups does not affect the value of the final grade, but is significantly correlated with the teacher's average score (.598**).

Conclusion and Recommendations

The study substantiates the important regulatory role of the development of professional assessment competence of a university teacher in the context of continuing education. As follows from the analysis (Yarmohammadian, 2011), universities should include continuous professional development of the academic staff in their long-term strategies and consider pedagogical development as a systematic process with which academic staff interact throughout their careers.



In the course of the analysis and interpretation of the collected data, the main question of the research is a generally affirming answer that the propensity to educate teachers in the process of lifelong education is stimulated by the improvement of their professional, including evaluation competence.

Hypothesis 1 that status indicators (mainly position and length of service) and more active participation in the differentiated wage system (DSS) affect the motivation for self-development is confirmed in the preliminary approximation.

Hypothesis 2 on the reflection of the teacher's own competence through student assessments of his professional qualities in relation to the objective indicators of the results of student learning success is confirmed as a trend, but is not detected as a pattern, requiring additional research beyond the scope of this work.

Resume

1. In the conditions of the updated educational process of the university, the teacher must form a flexible assessment system, independently determining the functions and connections between the elements of this system (Postlethwaite & Kellaghan, 2008).
2. Evaluation activity is a mandatory component of individual teaching experience, covering methodological, purposeful, analytical and other aspects of the assessment process.
3. A teacher's training for competent participation in assessment activities can be effectively carried out within the framework of the university learning mechanism aimed at developing teachers' competence assessment.
4. Evaluative competence of the teacher is an element of his professional and pedagogical competence, including the value, cognitive, design, applied and reflexive components.
5. The role of evaluation activity as feedback to the pedagogical process and objective certification, as well as the value of test competence in various promising forms of adult education, are noted.
6. The survey results allowed to outline the optimal forms of systematic retraining and self-education of the teaching staff for the development of professional, including evaluation, competence.
7. In particular, based on the identified sustainable preferences of staff, the network organization was asked to develop teacher evaluation skills, as well as reflexive motivation forms for preparing evaluation tools.

Limitations and perspectives

The survey of a limited contingent of teachers, listeners of the Summer School, illustrates the approaches to the formulation of the research problem of the stimulating role of mastering the modern skills of educational assessment for the purposes of reflexive self-development of the academic staff. At the same time, the limitations of indicators and data does not allow for setting larger-scale multidimensional analysis tasks using, for example, DEA or BigData. The possibility of continuing the study on the contingent of more than 700 teachers with building models of the structure of the relationship of variables, analysis of hidden factors and forecasting is being considered.

Recommendations

1. Develop and adopt a standard test tools for assessing the competence of the teaching staff of the university.



2. To qualify the work on the development of testing tools as a scientific and methodological project and include it in the DSS system as an external incentive for the teacher's self-development in the field of assessment competence.
3. To recommend universities to stimulate the creation of specialized network communities with the unification of teachers from different universities for the continue exchange of the latest achievements in the field of assessment and development of evaluation competence.

References

- Adel M., Zitouni F, (2017). Core Competencies of Academics from Students' Perspective. *International Conference on Sustainable Futures (ICSF)*. Applied Science University, Bahrain 2017.
- Bawane, J., Spector, J. (2009). Prioritization of online instructor roles: Implications for competency-based teacher education programs. *Distance Education*. 30(3), 383–397. doi:10.1080/01587910903236536
- Building a high-quality teaching profession: Lessons from around the world, (2011). Organisation for Economic Co-operation and Development. Paris, France.
- Buiskool, B., Broek, S., van Lakerveld, J., Zarifis, G., & Osborne, M. (2010). Contribution to the development of a reference framework of key competences for adult learning professionals. *European Commission, DG EAC*. Retrieved from http://pure.pascalobservatory.org/sites/default/files/keycomp_0.pdf?sm=au=iVV3MF2STFWW61rF ,
- Crocker L., Algina J. (2010) Introduction to the classical and modern theory of tests. 663pp,
- Desimone, L. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Education Researcher*. 38(3) 181-199.
- Erault, M. (1995). Schon shock: a case for reframing reflection in action. *Teachers and teaching*. 1995. (1) p.9–22.
- European Forum for Enhanced Collaboration in Teaching (EFFECT), Ten European Principles for the Enhancement of Learning and Teaching. (2018) <http://bit.ly/EFFECTprinciples> (accessed 21/02/2019).
- Gallagher, C., Rabinowitz, S., & Yeagley, P. (2011). Key considerations when measuring teacher effectiveness: A framework for validating teachers' professional practices. *San Francisco & Los Angeles: Assessment and Accountability Comprehensive Center*.
- Gibbs, G., Coffey, M., (2004). The impact of training university teachers on their teaching skills, their approach to teaching and the approach to learning of their students. *Active Learning in Higher Education*. 5 (1), p.87-100.
- Glossary of labour market terms and standard and curriculum development terms. (1997). European Education Foundation.
- Guasch, T., Alvarez, I., & Espasa, A. (2010). University teacher competencies in a virtual teaching/learning environment: Analysis of a teacher training experience. *Teaching and Teacher Education*, 26(2), 199–206. doi:10.1016/j.tate.2009.02.018,
- Hendrik, O., Yael, O., (2009). The Eight Key Competencies For Lifelong Learning: An Appropriate Framework Within Which To Develop The Competence Of Trainers In The Field Of European Youth Work Or Just Plain Politics? IKAB, September 2009.
- Isaeva, T. (2014), Evaluation Competence of a University Teacher: Content and Purposes. *High Education In Russiya*, № 10, 2014, 106-112.
- Johnstone, S., Soares, L. (2014). Principles for developing competency-based education programs. *Change: The Magazine of Higher Learning*, 46(2), 12–19. doi:10.1080/00091383.2014.896705
- Kellaghan, Th., Greaney, V. , (2001). Using assessment to improve the quality of education, *IIEP UNESCO*. 101p
- Leigh, A. (2010). Estimating teacher effectiveness from two-year changes in students' test scores. *Economics of Education Review*, 29(3), 480–488.
- Lifelong Learning in the Global Knowledge Economy: Challenges for Developing Countries, (2003). A World Bank Report. 167pp.



- Little, A., Wolf, A. (1996). *Assessment in Transition: Learning, Monitoring and Selection in International Perspective*. Pergamon, Oxford.
- Mah, D-K., Ifenthaler, D. (2018). Students' perceptions toward academic competencies: The case of German first-year students, *Issues in Educational Research*, 28(1), 2018, 13 - 137
- McClarty, K., Gaertner, M. (2015). Measuring mastery: Best practices for assessing competency-based education. *Washington, DC: American Enterprise Institute*.
- Minota, M. (2011). Reflective teaching as self-directed professional development: Building practical or work-related knowledge. In T.Bates, A.Swennen & K.Jones (Eds.), *The professional development of teacher educators*. London, Routledge.
- Morcke, A., Dornan, T., Eika, B. (2013). Outcome (competency) based education: An exploration of its origins, theoretical basis, and empirical evidence. *Advances in Health Sciences Education: Theory and Practice*, 18(4), 851– 863. doi:[10.1007/s10459-012-9405-9](https://doi.org/10.1007/s10459-012-9405-9)
- Postlethwaite, T., Kellaghan, Th., (2008). National assessments of educational achievement. *Education Policy Series 9*. UNESCO, 40pp.
- Promotion the teacher effectiveness. Sources in Annotated Bibliography (2015). *LINCS. American Institutes for Research*, 80pp.
- Romiszowski, A., (1999). Designing instructional systems: Decision making in course planning and curriculum design. L.-N.Y., 1999. 416 p.
- Shadrikov, V. (2007). The basic competences of the pedagogical activity]. *Sibirskii uchitel'* [The Siberian teacher]. No. 6 (54), pp. 5-15. (in Russ.)
- State Examination Center of the Republic of Azerbaijan, <http://www.tqdk.gov.az/en/>
- Theory and Method in Higher Education Research (2015), volume 1-4, Jeroen Huisman J., Tight M. (eds), Emerald Group Publishing Limited, p. i. <https://doi.org/10.1108/S2056-375220150000001017>
- Training and Assessment Qualifications and Competencies (2018). Site of Federation University. Australia. URL: http://policy.ballarat.edu.au/tafe/teacher_qualifications_competence/ch01.php updated 24th October 2018.
- Trigwell, K., Prosser, M., Waterhouse, F., (1999). Relations Between Teachers' Approaches to Teaching and Students' Approaches to Learning. *Higher Education* 37, pp. 57-70. <https://bit.ly/2RNh9Qj> (accessed 02/03/2019)
- Wyatt, L. G. (2011). Nontraditional student engagement: increasing adult student success and retention. *The Journal of Continuing Higher Education*, 59(1), 10-20.
- Yarmohammadian M., (2011). Evaluation of quality of education in higher education based on Academic Quality Improvement Program (AQIP) Model. *Procedia Social and Behavioral Sciences*, WCES, 15, 2917–2922.



The Problem of Forecasting in a Communicative Society

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Abstract

This article focuses on a topical issue in contemporary social research-forecasting. We examine in detail the specific features of the social projections (probabilistic, multivariate, different from the results of human activities, social programs, other social decisions), which update the problem of forecasting and modelling possible areas of societal development. We argue that the diversity of ways to develop the future requires the development of several possible options for the transition to a future state.

Keywords: Social forecasting, Communicative society, Risk society, Multivariate, Randomness

Introduction

One of the most important types of social research is forecasts that provide a piece of reliable information about the short or long-term future of a given social event. Forecasting is one of the most important functions of social science. The forecast is primarily to see the future or to inform in advance. According to P. Krishnamurthy (2010), forecasting helps to understand the factors that influence the future, their relation and results. In the course of our purposeful activity, we have always tried to understand the future. The emergence of an information society, the emergence of global challenges that threaten the existence of human beings has increased the interest of forecasting the future. This growing interest caused a real futurological explosion. Philosophers, sociologists, economists, historians try to understand the future in its whole range. For example, M. J. Cetron and A. Clayton (1975) found that it is possible to obtain information about the possible order of events, and as a result allow us the opportunity to influence these events to our benefit and minimize the disadvantages brought by them.

The social forecast is a distinct and, specific type of knowledge. The first specific aspect of the social project is that it has no real objective knowledge and is likely to carry a probabilistic characteristic. This feature of the forecast is explained by two reasons. Since the forecast is empirical knowledge, its accuracy is determined by the degree of conformity to real events and processes. Frederick E. Emery (1974) argues that the argument that future does not exist yet and cannot be experienced or known is a challenge for the forecasting of future, however, scientifically it is possible to make an accurate prediction to a certain degree by taking present conditions into account.

Coincidence, probability and irreversibility are the most important signs of the social process. Here, the role of spontaneous activism is also noticeable. From the history of human history, a great many examples can be drawn from the fact that chance at one stage or another stops the inevitable progress of the events, and correctly correlates with history as well. For example, no one thought that one day the USSR could collapse. Nevertheless, the USSR now is a part of the history, and most likely, will never return. For instance, Andrei Amalrik (1970) wrote that the Soviet regime is progressively getting so weaker that it is not certain how long it could be able to bear the strain.



We believe that our paper is beneficial for the literature as it introduces methodological pluralism in forecasting for better results in the forecasting process.

There are at least two important points that make social forecasting a challenge. Firstly, the dynamics inherent to modern society, in turn, complicate the forecasting process, because foreseeing everything beforehand is not always practically possible. Secondly, because any important event is the result of people's actions, desires, and willpower, sometimes the outcome of their actions does not coincide with their original intentions. Moreover, the unexpected social consequences of people's behaviour in modern times further aggravate the problem of prediction. The effectiveness of forecasts depends on many factors, including the fundamental principles of the research process. Thus, we have found the following basic provisions for the reliability of the forecast:

- The depth and objectivity of the analysis
- Having comprehensive information about specific conditions
- Operativity and competence
- *The depth and objectivity of the analysis*

The diversity of the ways in the future emerges requires the creation of forecasts in such a way that there are several possible options available for the transition between the options. To give more accurate predictions about the future, researchers are trying to give a few possible alternatives for the coming future. One of the most important tasks of social researchers is to reveal the causes and factors that determine the development of social events. Furthermore, the greater the number of factors influencing the incident, the greater the options for the forecast. According to M. J. Cetron and Audrey Clayton (1975), such examination enables us to recognize and assess the possible goal modification for the scheduling of goal achievement and helps to make a more comprehensive analysis of possible crises regarding the forecast to get more realistic future scenarios.

The basis of each version of the prognosis is the active influence of one or two social factors. However, the multivariate character of the forecast does not exclude those who compile the main version of the forecast and do not free them from having to prove on what grounds this decision has been made. Otherwise, scientific researches will produce such results that it will not be possible to determine how the end result of the forecast might be. Time will show which of the options will prove itself to be objective. However, it is also possible for real events to progress in a completely unexpected way and change the reliability of the forecast remarkably. Thus, the multivariate characteristic of the forecast is one of its specific features. The multivariate characteristic of the forecast does not always guarantee its reliability, meaning that, it does not ensure that the forecast is in complete agreement with real processes. Therefore, during the process of forecasting, possible errors should be predetermined and taken into account. J. Scott Armstrong (2001) argues that in the forecasting process, the information should be reliable and measurement error must be minimal. Due to the shortcomings in social sciences, the mathematical apparatus is not capable of fully reflecting all aspects of the forecast object's external environment. The method of expert evaluation is yet to compensate for the weakness of the mathematical apparatus in the construction of social models. Experts' assessments are a reliable basis for predictions on actual issues of society today. Most predictions in the economy, politics, and techniques are drawn up in this way. According to E. I. Kholostova (2007), "the expertise is to investigate the problem by formulating a specialist opinion, while the expert completes the information shortcomings with his knowledge and intuition." Furthermore, Safronova (2002) argues that, in the expert evaluations, the following methodological requirements should be followed: assessment of access status, identification of reasons for the disadvantage of the situation, identification of trends that are more specific to the situation, identification of the features of the most important components of the system.



- *Having comprehensive information about specific conditions*

Another feature of the social forecasting is that it is a special kind of scientific knowledge that differs from the outcome of people's activities, existing social programs and other social decisions. Indeed, the outcome of people's activities, existing social programs and other social decisions could also be considered as some sort of projection of the future. For instance, in projects and social programs, the points that are covered are in the stage of preparation, so they do not reflect reality. However, this does not translate those documents into a prognosis, as they represent the changes concerned with people, society and the government. One of the stages of this activity is the design of new objects, machines and mechanisms, and public events that are not yet known to practice. Dennis L. Meadows (1972) argues that our information about complex systems operate is incomplete, and several years need to pass before learning about its disadvantages.

- *Operativity and competence*

When designing social events, the understanding of the future is characterized by the fact that any decision before reality becomes available in the form of imaginary ideas. However, this is not the forecast, but the emergence of new elements of social existence. If the appropriate body accepts the projected event, it completes the process of creation of something new and makes appropriate changes in real practice. According to D. Bell (1960, 1973), the human impact on the environment is unstoppable; interdependence of people in different spheres of activity is also enhanced and the role of knowledge and information in social relations is increasing.

The situation in social forecasting is quite different. It is designed to see the future in advance and does not change anything in real life as any other scientific knowledge. Therefore, the projected event is not a forecast. The forecast predicts the possibility of its emergence.

It must be noted that not all the phenomena and processes investigated by social sciences can act as objects of the forecast. Because forecasting is interconnected with predicting the future changes beforehand, prognostic research can only include events and processes capable of developing as its object of the forecast.

Based on the above discussion, our arguments suggest that social forecasting is possible, and the reliability of this forecast is dependent

on three points which are the depth and objectivity of the analysis, having comprehensive information about specific conditions, and operativity and competence.

Method

The complexity of modern social processes necessitates the development of new predictive methods in social forecasting. As social forecasting is enriched with science such as anthropology, hermeneutics, axiology, praxeology, semiotics, synergetic, the problem of methodological pluralism is actualized.

As a solution to the stated problem, we used analytical, synthesis, comparison, exacerbation, historical and logical, historical parallels and other methods, which are general methods of cognition.

Findings

The findings obtained from this analysis can be summarized as follows:

- Social and humanitarian sciences cannot be closed by any universal method taken in terms of the constant stability of events. The social world must be investigated in its entirety. Therefore, it is the methodological



synthesis of the most diverse approaches (phenomenological, psychological, culturological, etc.) that define the direction of mainstream development of modern social cognitive methodology;

- The synergies of the methodological potential world and its scientific knowledge, the idea of the integrity of the universe, the evolution of universal self-organization mechanisms; the justification of the fact that the rule originated from chaos, its objective and universal nature of self-organization; suggests that development is the result of the instability that has had a constructive moment.
- The application of mathematical methods is one of the factors that increase the accuracy of modern social knowledge, as well as the cognitive-heuristic capabilities of social analysis. However, mathematical methods cannot be taken as an exact solution. First, they are not suitable for all occasions. Secondly, the application of mathematical methods in the analysis of complicated social systems can be accompanied by serious errors. Planning, projection, forecasting are the attributes of modern society.

Results, Conclusions and Recommendation

This paper documents evidence regarding the problem of forecasting a communicative society. Our findings show that forecasting is possible and reliable. For it to be reliable, three points must be met. Those points are the depth and objectivity of the analysis, having comprehensive information about specific conditions, and operativity and competence of forecast.

Changes in the world today are mostly scientific-technical. Therefore, philosophical theories, which are supposed to predict the future of humanity, must rely on the predictability of technical progress. For further researches, we recommend experts to critically analyze traditional, but largely outdated values for scientific and technological progress and social progress, for technogenic civilization.

References

- Andrei A. (1970). Will the Soviet Union Survive Until 1984.
- Armstrong J.S. (2001). Standards and Practices for Forecasting. Principles of Forecasting: A Handbook for Researchers and Practitioners.
- Bell D. (1960). The End of Ideology: On the Exhaustion of Political Ideas in the Fifties.
- Bell D. (1973). The Coming of Post-Industrial Society.
- Clayton A., Cetron M. J. (1975). Social Forecasting: A Practical Approach. Technological Forecasting and Social Change 7, 339-355.
- Frederick E. E. (1974). Methodological Premises of Social Forecasting. The Annals of The American Academy.
- Krishnamurthy P. (2010). Social Forecasting and Future. SSRN Electronic Journal.
- Meadows D. L. (1972). Toward a Science of Social Forecasting.
- Сафронова В. М. (2002). Прогнозирование и моделирование в социальной работе: Учеб., Пособие для студ. высш. учеб. заведений. -М.:Издательский центр Академия, 192.
- Холостова Е.И. (2007). Социальная работа: Учебное пособие. -4-е изд. - М.: Издательско-торговая корпорация. Дашков и К, 240.



Priority Directions of Financing Socio-Economic Development of Regions in Azerbaijan

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Abstract

The article outlines the essence of the state's regional policy and determines its main directions. Specifically, the criteria for determining the backward regions, which are of crucial importance in the formation of the regional policy of the state, have been substantiated. The article also substantiates the directions of financing the social and economic development of the regions. These justifications cover energy, transport and social development issues. The article outlines the factors that necessitate the state support to the development of the rural areas. The density of the population was noted as the main factor supporting the development of rural areas. Thus, in rural areas, due to low population density, both production and sales of products require large expenditures in comparison with urban areas.

Keywords: Regional policy, Spatial inequalities, Financing rural development, State programs

Introduction

Provision of regional development at the present stage of Azerbaijan's economic development is one of the most important priorities. Development of all regions of the country leads to overall development and increase of living standards of the population. Regional development policy is aimed at ensuring economic growth and sustainability of economic development. Based on the detection and elimination of structural problems in the country, state policy focuses on forming the necessary conditions for the development of regions and raising their competitiveness. The state's regional development policy, direct and indirect coordination of long-term economic decisions in order to address the challenges posed by regional development, in some cases, income, consumption, employment, investment and so on in regions can be seen as the conscious attempts of the state directed to control over the parameters. This policy is, first of all, related to the amount of public spending on the objectives of eliminating the differences between the regions on the development of regions and the level of socio-economic development. Thus, reaching any of the goals depends on decisions about the distribution of limited economic resources. This applies directly to one of the functions of finance. Second, regional development policy covers the impact of economic agents' decisions on the location of production and investment activities. So, the activity of any subject is related to the location. From this viewpoint, the state will have the opportunity to influence the selection of such a space. By Influencing the formation of income of farmers, the state affects their decisions regarding the location of production

Method

The method of the research is based on a technical-economic analysis of the statistical data on local and regional progress and material well-being in Azerbaijan. The article uses an application-oriented approach to define areas of financing for regions.

Socio-economic development of regions in Azerbaijan

Space is an integral part of economic, social, ecological, political and cultural attitudes and processes, and their geographies define the conditions and forms of societal methods of how these processes can be developed (Markusen A. (1987) Regions: The Economics and Politics of Territory, Rowman and Allenheld, Totowa, NJ.). The unevenness or differentiation of the economic space has a significant impact on the state structure, the structure and efficiency of the economy, the intuitional changes and the tactics of socio-economic policy (p.41) (Regional development: the experience of Russia and the European Union. / A.G. Granberg, Moscow: ZAO "Izd-vo" Economics ", 2000, 435p.). Local and regional progress and material well-being depend on the continued growth of employment, income and productivity, which is an integral part of economic development



(STORPER M. (1997) The Regional World. Territorial Development in a Global Economy. Guilford, London.). From this point of view, the concept of "regional development" is related to the change in the number of population, employment, income and value-added regional productivity. It also means social development, which includes the health and well-being of the community, the quality and creativity of the environment (Theories of Local Economic Development: Perspectives from Across the Disciplines/Edited by Richard D. Bingham and Robert Meir. London: Sage Publications, pp. 319. C.27). In our view, the socio-economic development of the country is related to the socio-economic development of the regions and the elimination of differences between them. Regional development depends on geographical and demographic factors, specialization and productivity, physical and human capital, infrastructure and innovation. As the factors on the regions differ, their developmental levels also differ. This situation is widespread even in developed countries. For example, in Belgium the gross domestic product (GDP) per capita in the capital is 2 times more than in the province of Flanders, 2.8 times than in the province of Wallonia, and in the Netherlands this indicator in Antwerp is 1.8 times higher than the province of Eno (Regional policy of the EU countries. IMEMO RAS, Moscow: 2009, 230 p. from. 14.). Studies carried out in 1995-2007 by member states of the Organization for Economic Cooperation and Development (OECD) have shown that 32 percent of economic growth has been achieved by about 4 percent of the regions. The emergence of such a situation affects the geographical position of certain regions, their natural vulnerability levels, climates, and the quality of land, but in many cases market forces deepen regional inequality.

The main purpose of the regional economic (or socio-economic) policy is to express the compromise between economic efficiency and social justice, although it is expressed in different ways in different countries (A.G.Granberg. Bases of regional economy. Moscow: State University Higher School of Economics, 2003, 495 pp., P. 350). For example, in most OIC member countries, regional equilibrium (justice) and efficiency (growth and competitiveness) are based on regional policies. Examples of regional balances include the priority of the development of the backward regions in Denmark, the regional balance in Finland, the territorial integrity of France, and the equal living conditions in Norway (pp. 14) (Regional Development Policies in OECD Countries. Paris:OECD Publishing, 2010, 388 p.). The scale of the development of the regions has a significant impact. It is assumed that the rural area has a higher position in the distribution of economic resources than cities. In such a situation, the development of infrastructure for improving the competitiveness of vulnerable regions can be ensured by the allocation of economic resources to the benefit of vulnerable regions due to the state's funding. Thus, the region's competitiveness has a significant impact on the speed and value of material, financial and information flows in that region.

Results, Conclusions and Recommendations

According to the socio-economic development of the forces, the role of the market in reducing regional inequalities is limited and this usually causes concentration of production in separate regions. Therefore, the state implements the redistribution of economic resources in favor of the regions with low development levels to reduce disproportions in the territorial structure of the national economy. In such circumstances, it is necessary to determine the criteria for the implementation of the resource allocation. For example, in the European Union, these criteria are the gross domestic product per capita, the unemployment rate and the rate of job creation, rural and agrarian regions (9. A. Cappelen, F. Castellacci, J. Fagerberg, B. Verspagen. The Impact of Regional Support on Growth and Convergence in the European Union. Eindhoven Centre for Innovation Studies, The Netherlands Working Paper 02.14, September 2002, 27 pp, p. 7.). Thus, in the European Union, if the per capita Gross Domestic Product in the region is 75% of the average, this region is considered to be the backward. Also, the gross domestic product per capita and the share of agriculture in employment is one of the factors that are considered in determining the state support to the regions. From this point of view, it is possible to identify the regions in Azerbaijan that need to be supported. Although the gross domestic product is not calculated in the regions, the gross output per capita on key areas in the regions in 2012 varied from 5.1 per cent to 39.1 per cent of the country's average (Except for the Nakhchivan economic region, this figure is 95.8 percent in this region). As you can see from this criterion, all regions (except for the city of Baku only) are included in the category of



regions that must be supported. Also, in 2012, 37.7 percent of the employed population accounted for agriculture, forestry and fishing, which is mainly covering the regions. In this regard, supporting the development of agriculture in the regions, as well as the development of non-agrarian spheres should be prioritized.

At present, the Azerbaijani government has the necessary capacities to finance the development of the regions. Successful implementation of oil strategy has increased the volume of revenues in the country. An important part of these revenues remains at the disposal of the state. So in 2011, 50.1 percent of the remaining revenues in the country were aimed at saving and only 42.4 per cent of these resources were directed towards implementing investments across the country.

Also, 62.0 percent of total savings in the country in 2011 were at the disposal of the state, of which only 44.3 percent were used. Over the recent years, the state's overfulfilment of the consolidated budget revenues has led to an increase in the assets of the State Oil Fund of Azerbaijan. Thus, the resources of this fund will be \$ 34.1 billion USD by the end of 2012, which is approximately half of the gross domestic product.

Limitations of financial opportunities in the regions of Azerbaijan and poor development of institutional structures significantly increases the role of the state in regional development. Despite the implementation of two regional development programs in the country over the past 10 years: State Program on Socio-Economic Development of the Republic of Azerbaijan (2004-2008) and State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan in 2009-2013, the difference between Baku and other regions has not diminished significantly. Taking this into account, the Government of Azerbaijan has adopted the State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018. In our view, the precise definition of regional development programs is crucial in terms of the effectiveness of the limited economic resources distribution. These goals are different in different countries. For example, the goal of a regional policy in the UK is to achieve a high and stable level of economic growth and employment across the country by providing full use of the existing potential of each region. In Poland, regional policies are aimed at supporting economic growth pole (large cities), in addition to stimulating the development of the backward regions, especially southern regions. In general, in the European Union, regional programs covering 2007-2013 include goals such as mergers, competitiveness, employment and foreign co-operation (Governing Regional Development Policy: The use of performance indicators. Paris: OECD Publishing, 2007, 198 p, p.34.). From this point of view, it is important to identify the objectives of regional development programs. The main objective of the "State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018" is the continuation of measures to develop non-oil sector, diversification of the economy, rapid development of regions, especially infrastructure and social services as well as further improvements. In our opinion, the main goal here is to accelerate the rapid development of the regions (including the development of the non-oil sector and the diversification of the economy). Nevertheless, the mentioned program would provide a high tempo of economic growth by identifying development poles in the country and directing resources to the development of these poles.

To achieve the goal set out in the "State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018", it is intended to achieve further improvement of the provision of infrastructure in the regions, including the provision of communal services to the population, accelerating the development of entrepreneurship in the direction of export-oriented and competitive products, increasing the employment rate of the population, especially the rural population, and the continuation of measures to reduce the poverty level.

One of the most important tasks facing the government is to increase employment in the regions. Thus, by the end of 2012, the population in the country increased by 33.2 per cent compared to 1989 and 17.6 per cent in comparison to 1999, while the number of able-bodied population increased by 66.5 per cent and 43.4 per cent respectively. As a result, the share of those who are able to work in the total number of the population increased from 55.4 percent in 1989 to 56.8 percent in 1999, and to 69.2 percent in 2012. It should be noted that this figure reached its peak, 69.3 percent in 2011. As you can see, at present, the country has entered into the most aggressive period in terms of employment. In 2012, the share of Baku in the country's population was 23.0



percent, while its share in hired workers was 44.7 percent. Also, the latter figure increased by 1.8 percent compared to 2000. In 2012, the share of hired workers in the total number of the population was 30.7 percent in Baku, whereas in economically distant regions this figure was 11.4 percent. In particular, the rate of natural increase in rural areas in the country being relatively high, increases the importance of rural development and employment promotion. For this purpose, the following measures are envisaged in the field of employment in the State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018:

- expansion of regional economic relations;
- Formation and development of a fair competition environment, ensuring compliance with labor legislation;
- directing a portion of revenues from oil exports to human capital development and applying advanced technology and innovations to the development of science-intensive industries;
- Creating a balance between the proposed workforce and the number of jobs available;
- Reduction of population migration through further development of social and communal infrastructure in rural areas;
- Increasing the level of employment of women and youth.

In general, the creation of new jobs in the country is one of the key factors that determine the economic policy of the state and it will depend on the measures taken to improve the competitiveness of the regions. One of the main directions of raising competitiveness of the regions is related to the development of infrastructure.

One of the important areas in the development of the regions is the development of transport. Investments in transport infrastructure increase the region's internal and regional ties with other regions. This leads to the improvement of conditions for production, tourism and commerce, as well as the increase in competition and concentration across the country by reducing the time of transportation as well as the quality and price ratio of transportation services. The development of transport infrastructure in the country is also a necessary condition for the specialization of regions.

It should be noted that the development of transport infrastructure has a direct, indirect, and derivative influence on the development of employment in the regions. Direct and indirect impacts are related to the creation and operation of transport infrastructure, whereas indirect impacts result from the impact of transport infrastructure on the region's competitiveness. As a result of the development of transport infrastructure, the time and cost savings, increased access to transport services, and reliability increase productivity in production. For example, the increase in the quality of motor roads can increase the vehicle lifetime and reduce its current operating costs. Also, increasing access to markets leads to increased productivity by creating new opportunities for business and raising competition. Thus, the development of transport infrastructure has a significant impact on employment and economic growth by increasing labor productivity.

The energy supply is crucial in the formation of competitiveness of the regions. Expansion of the electricity grid causes a reduction in system costs associated with investment projects in the regions. Over the past 2004-2013, 17 power plants with a total capacity of 2000 megawatt have been built in the regions, more than 10,000 kilometers of power lines and more than 1,500 substations have been constructed or reconstructed. During the mentioned period, 40,000 kilometers of gas lines were constructed or repaired in the field of natural gas supply, and the level of gas supply in residential houses reached 83.4 percent from 34 percent. At the same time, economic growth in the regions may require additional energy resources.

One of the key priorities in the development of the regions is the financing of housing and communal services. So, in most regions of Azerbaijan, in housing and utilities sector, the current level is significantly below the established norms. For example, in 2012 the average per capita housing area in Azerbaijan was 13.1 m², whereas in Sweden this indicator was 52 m², in the UK 34.5 m² and in the US 96 m². Also, the proportion of housing commissioned in the country in 2012 was about 1.9 times less than in 1990. Also, if we accept the amortization period of a residential building for 50 years, then we come to a conclusion that the depreciable part of the country's housing stock is more than 2141.2 thousand square meters of housing put into use in 2012. As it is evident, increasing the housing construction is needed to improve the living conditions of the population in the



country. Also, according to a survey conducted by the State Statistical Committee in 2010, an average household in the country consumed 2966.7 kWh of electricity in 2009. This figure was less by 907.6 kWh in Nagorno-Shirvan economic region, 772.4 kWh in Guba-Khachmaz economic region, 1040.8 kWh in Sheki-Zagatala economic region, 505.8 kWh in Ganja-Gazakh economic region, 412 kWh in Nakhchivan economic region and 756.8 kWh in Lankaran economic region. In the mentioned year, the average gas consumption per household was 2143.0 cubic meters, which was less by 619.9 cubic meters in the Nakhchivan economic region, 68.0 cubic meters in the Ganja-Kazakh economic region and 426.7 cubic meters in the Lankaran economic region m, and 345.2 cubic m in the Aran economic region. In 2012, 54.8 percent of households lived in urban areas, 45.2 percent in rural areas, while households with central heating systems account for 12.8 percent, households with network gas - 75.2 percent, the water pipe share of households was 78.8%. Also, one of the priorities is the implementation of measures to improve the population's housing coverage in conditions of population growth. In this area, the continuation of reforms in the housing and communal sector in the regions, supporting the development of the real estate market, provision of low-income citizens in need of housing in the regions, including young families, reconstruction and improvement of the water supply and sewerage system measures are planned to be implemented in 2014-2018. For example, within the project "Reconstruction of water supply and sewerage system of Lankaran city", it is planned to build ultrasonic cleaning plant based on a new technology with the output of 30,000 cubic meters per day. The project envisages construction of 15,000 cubic meters of water reservoir, pumping station, 200 km of various diameter distribution network, 180 km long sewerage network and 8 sewage pumping stations.

In recent years, large-scale investments have been made in education in the regions, but this sector still remains a priority. In particular, the coverage of regions with pre-school institutions is low. For instance, in the Lankaran economic region, the level of provision for kindergartens is 15 per cent, in Nagorno-Shirvan economic region - 8.2 per cent and it is 23 per cent in Sheki-Zagatala economic region.

Also, the calculations show that the number of seats in the regions is smaller than the numbers specified in the standard (AzDTN 2.6-1). From this point of view financing of construction of cultural facilities is one of the priority areas.

It should be noted that, in addition to investment costs in the aforementioned areas, a substantial part of maintenance costs should be provided through the state budget. From this viewpoint, it is required to link the revenues of state budget with increasing costs.

In 2012, 60.9 percent of the population in the economic regions of Azerbaijan (excluding Baku) was made up of rural population. In this regard, the social well-being of a significant part of the population depends on the development of rural areas. As already mentioned, geographically, economic growth is mainly based on scalability and concentration in certain regions and cities. That is, the regions that can not mobilize enough opportunities to obtain employment and income are left behind. From this point of view, rural areas have a number of shortcomings. Thus, rural areas do not have a density which has a positive impact on the growth of the economy in a certain space. For example, according to the definition of the Organization for Economic Co-operation and Development (OECD), if less than 150 people fall per square meter, then such communities are considered as rural communities.

If the share of the rural population exceeds 50 per cent in the region, then such region is mostly considered rural, if this share is less than 15 per cent then it is considered an urban region, and finally if it is between 15 and 50 percent, then such region is considered to be a middle-sized region...(OECD Rural Policy Reviews: Germany. Paris: OECD Publishing, 2007, 200 p, p.31.) In general, the American economist J.Makal has included the following factors limiting the development of rural areas (Magill, John (2003), "Rural Economic Development" in Sammis B. White, Richard D. Bingham and Edward W. Hill (eds.), Financing Economic Development in the 21st Century, M.E. Sharpe, Inc., New York, pp. 266-276.):

- Great distance to markets;
- Individual meetings of people living in rural areas (these meetings differ in comparison with towns);
- Limited access to capital (low competition among the rural lenders causes the capital price to be high);
- Limited scalability capabilities;



- Limited network of entrepreneurs;
- Deficiencies in information and business services;
- Restrictions on the relationships of rural economies with the rest of the economy;
- Lack of qualified personnel.

The above mentioned bring the state promotion of rural development to the fore. Also, agriculture is a key element of rural livelihood and is closely linked to other economic, environmental and social development forces in these regions. From this point of view, the development of agriculture affects the well-being of the rural population. In 2012, 37.7 percent of the employed population accounted for agricultural, fishing and forestry, whereas those employed were 38.4 percent of those living in rural areas. Also, about 59.1 percent of the working-age population living in rural areas operated in this area. In 2012, the economically active population in the country was 50.4 percent of the total population. Given these figures, estimates show that around 76 percent of the economically active population in rural areas are involved in agriculture, fishing and forestry. It should be noted that in the countries included in the Organization for Economic Cooperation and Development, only 10% of existing labor resources in rural areas are engaged in agriculture and forestry, and their support is needed (The New Rural Paradigm: Policies and Governance. Paris: OECD Publishing, 2006, 168 p, p.13.). At the same time, income per capita in agriculture is typically lower than in other sectors of the economy. So in 2012, an average of about 135 AZN added value was created per month for a person engaged in agriculture, fishing, and forestry, then we come to the conclusion that in rural areas income from employment is relatively small. From this point of view, the state is required to support rural areas as well as agriculture.

The measures to support the development of the agricultural sector are multilateral. Thus, the development of the agricultural sector affects food security, raw material supply, and ecological status. Thus, in 2012, 55.1% of the country's land was used for agricultural purposes, and 29.9% of these land areas were irrigated lands. From this point of view, agriculture has the potential to reduce land quality and to seriously affect water pollution. In such circumstances, policies for agricultural development should include environmental protection and biodiversity conservation. Also, since rural areas are at a distance from major markets, due to the low concentration in these places, infrastructure density and development levels are low, thus causing additional costs comparing to urban areas. Therefore, it is necessary to provide a state support to the development of rural areas, especially the agricultural sector.

A modern approach to rural development envisages the implementation of large-scale investment projects, along with granting subsidies to the development of regions dominated by agriculture. These investments are made in order to create favorable conditions for living in the regions and to increase their competitiveness. This is related to the provision of necessary production and social infrastructure to rural areas. Also, the competitiveness of the agricultural sector depends largely on the development of the fields serving this area and staffing. In this regard, establishment of warehouses in the regions, agro-services serving agriculture, improving the quality of veterinary and phytosanitary services, seeds, fertilizers and pesticides, development of necessary sales channels, such as the organization of information and communication services for agricultural producers, are factors that determine the competitiveness of the agricultural sector.

Development of agricultural products processing industry in regional centers and rural areas plays an important role in the provision of developing rural areas. There are great opportunities for the development of the food industry in the republic. Thus, in 2012, the volume of production of food products, including beverages, amounted to about 25 percent of the 1990 level and this decline was mainly due to a decrease in the production of export-oriented food products. Also, the complex processing of raw materials in the food industry is of crucial importance. Thus, in the processing of agricultural raw materials, products and production waste are also obtained along with the main product. For example, except for meat products, the waste of cut animals - hair, nails, horns, bones, gut, blood, etc. are also obtained in meat production. These waste products are used in various types of products (combinations, buttons, brushes, musical instruments etc.) and more than 40 medicines, animal feeds and so on. can be produced by using these wastes. The absence of waste recycling facilities reduces the efficiency of production. Therefore, the complex development programs for separate areas of food products



should be developed in the republic, and this program should take into account the processing stages of agricultural raw materials.

In general, the development of small and medium-sized businesses on the basis of administrative district centers is crucial for the creation of developmental poles in the country. Meanwhile, the specialization of agricultural products in separate regions, the creation of specialized warehouses, transportation economies and processing facilities can play an important role in the development of the regions.

Along with the food industry, there are available opportunities for the development of light industry, mechanical engineering and metallurgy industry, building materials industry in the regions. It should be noted that the development of local raw materials based on the "State Program on socio-economic development of the regions of the Republic of Azerbaijan in 2014-2018" has been identified as a priority in this area. Nevertheless, it would be expedient to further define industry development opportunities within the framework of the mentioned program. In our view, it is required to conduct research in the following areas to identify industry development trends:

- available natural resources and their estimated quantities in the country;
- structure and volume of agricultural production;
- volume of future demand for certain consumer products;
- volume of import;
- successfully developing industries in countries with similar volume and structure of existing financial, labor and natural resources;
- possible interaction of the existing fields in the country with local and foreign related areas;
- opportunities for development based on vertical or horizontal integration of existing production;
- possible diversification of existing production;
- capacity to increase production volumes due to the scale of production.

It should be noted that there are limited opportunities for the development of many areas of industry at the expense of only domestic market. Only industrial products that are oriented to the domestic market ultimately lose capacity to scale-up and are not competitive in the long term. Therefore, it is possible to develop the country's industrial potential by creating relatively large industrial companies. At present, the creation of such industrial companies in the country is mainly possible with state participation and financial support. In such circumstances, certain actions can be taken in specializing in certain industries of separate regions in the country. In recent years, the black and non-ferrous metallurgy industry in the country has been primarily developed in the Ganja-Gazakh economic region. In our opinion, while the areas of food and light industries are mainly developed in line with their specialized agricultural products in the regions, it is advisable to develop industrial production based on raw materials and employment factors.

The role of staff in achieving success in the above-mentioned direction is crucial. Therefore, the training of staff and raising their knowledge and skills in the country should be one of the main directions of government policy. In recent years, state funding of education in foreign countries, the development of vocational education and etc. steps are among the measures taken in this direction. Nevertheless, the development of separate regions should be clearly defined and the training of personnel in these areas should be financed.

Thus, direct and indirect financial support of the state is required in these areas. Determination of the role of the state in the financing of socio-economic development of the regions is also made based on the evaluation of the opportunity to participate in this development of the private sector. Thus, regional policy in Azerbaijan is aimed at raising competitiveness in the regions, creating new jobs and increasing social security. Measures in this direction cover both economic and social and environmental issues. Since 2004, regional development programs in Azerbaijan have led to an increase in the overall level of development of the regions, but did not substantially reduce the difference between Baku and other regions due to the level of income. Meanwhile, five-year regional development programs implemented since 2004 have played a crucial role in mobilizing financial resources and promoting regional development.



References:

- A. Cappelen, F. Castellacci, J. Fagerberg, B. Verspagen. The Impact of Regional Support on Growth and Convergence in the European Union. Eindhoven Centre for Innovation Studies, The Netherlands Working Paper 02.14, September 2002, 27 pp, p. 7.
- A.G.Granberg. Bases of regional economy. Moscow: State University Higher School of Economics, 2003, 495 pp., P. 350
- Governing Regional Development Policy: The use of performance indicators. Paris: OECD Publishing, 2007, 198 p, p.34.
- Magill, John (2003), "Rural Economic Development" in Sammis B. White, Richard D. Bingham and Edward W. Hill (eds.), *Financing Economic Development in the 21st Century*, M.E. Sharpe, Inc., New York, pp. 266-276.
- Markusen A. (1987) *Regions: The Economics and Politics of Territory*, Rowman and Allenheld, Totowa, NJ.
- OECD Rural Policy Reviews: Germany. Paris: OECD Publishing, 2007, 200 p, p.31.
- Promoting Growth in All Regions. Lessons from across the OECD. OECD Publishing. 282 p. p.19-20
- Regional development: the experience of Russia and the European Union. / A.G. Granberg, Moscow: ZAO "Izd-vo" Economics ", 2000, 435p.
- Regional Development Policies in OECD Countries. Paris:OECD Publishing, 2010, 388 p.
- Regional policy of the EU countries. IMEMO RAS, Moscow: 2009, 230 p. from. 14.
- STORPER M. (1997) *The Regional World. Territorial Development in a Global Economy*. Guilford, London.
- The New Rural Paradigm: Policies and Governance. Paris: OECD Publishing, 2006,168 p, p.13.
- Theories of Local Economic Development: Perspectives from Across the Disciplines/Edited by Richard D. Bingham and Robert Meir. London: Sage Publications, pp. 319. C.27



The Effect of the School Culture on Teacher's Behaviors

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Abstract

The school culture can feel as soon as you enter the school building and it is a place where you can learn more as long as you observe the students, teacher and other staff. We can get many information about the culture of the school from the physical structure of school, its orders, panels, the relationships between teachers and students and also from their face mimics. In this research, it will be answered that how the school culture affects the teacher's behaviours. Datas were gathered from 164 teachers who worked in the schools at Başiskele district in 2017-2018 and who were chosen by volunteering basis. The survey tool composes of 2 parts; 'Personal Information Form' and 'Teacher Behaviors Scale'. To evaluate the datas, one way Anova and T-test had been used. In research, as the existing situation will be described, the descriptive survey model had been used. When the whole datas were considered, it was seen that the positive situations about the school culture affects the teachers' behaviors positively in general, and the teachers are motivated or they work more actively, the negative situations decrease the motivation of many teachers. It causes to have stress or teachers try to change this situation.

Keywords: Culture, School culture, Organization, Teacher, Behavior

Introduction

The word "organization in English, which is based on the Greek word organon, is used in Turkish as the word "örgüt" (Arpağuş,2011). According to Başaran (2000), each management theory defines the organization from its own point of view. Therefore, the organization has at least as many definitions as the number of theories. According to the theories of structural and process management, the organization is the formal association of people who have come together to realize the determined goals. As stated in behavioural management theories, the organization is a fabric of the interaction process created by people in order to reach their shared goals. In system theories, the organization is a partnership of the working and the clusters who are committed to the goals they develop through agreement.



In 1871, the first definition of culture was expressed by the anthropologist Taylor as “a complex whole of knowledge, belief, art, morality, tradition, and many other talents and habits of people living in a society” (Temiz, 2009). Culture is a variety of attitudes, behaviours and beliefs that determine the perspectives of people who are shared, developed and passed on from generation to generation (Kongar, 1989). Organizational culture allows people in the organization to meet on a common ground.

Schein (1991) defines the culture of a group as: “A pattern of shared basic assumptions that the group learned as it solved its problems of external and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. Tylor (1970) defined culture in very different terms: “Culture or civilization, taken in its wide ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society.”

In many sources (Başaran, 2000; Bursalıoğlu, 2008; Üçok, 1993; İra, 2004; Schein, 1991; Kaya, 2008), the concept of organization defined in different ways can be described as a social open system formed by individuals who came together to realize certain goals. Individuals who make up organizations can have different purposes. The purpose of people coming together in organizations should be to meet the common goal. This common goal creates the culture of the organization. Culture is the main factor that enables administrators and teachers to act jointly in the school environment.

Values and norms, one of the main elements of culture, provides the school staff to act jointly. The first resistance to change in school comes from school culture. Since the change brings about some unknown things, people react to this uncertainty. Because change not only creates differences in the existing structure, but also in processes and relationships. As in all organizations, change is inevitable in educational organizations. But resistance to change is also a fact. If the organizational culture that affects the behaviors of administrators, teachers and students in educational organizations is supportive of change, less resistance can be encountered (Çelik, 2009).

Fullan (1991) and Hargreaves (1997) make reference to four types of school culture: In the first type of school culture, the teacher is the ruler of his or her class and this creates a competitive atmosphere in the classroom. In this type of culture, teachers focus on the present and perform traditional practices instead of long-term subjects and studies. The second type is a culture in which limited cooperation is preferred and cooperation is weak and superficial in these cultures. Teachers share materials and some teaching strategies; however, they refrain from discussing deeper topics such as curriculum, long-term planning or their own educational philosophies. Third, it is a type of school culture in which fake co-operation, open bureaucratic policies and procedures, formal structures stand out and cooperation culture is not supported. The fourth is a type of culture where cooperation culture is emphasized continuously and teachers are in a development and confidence that their professional competence increases over time. Team teaching, consulting and shared decision-making practices are very important in collaboration cultures. Teachers are pleased with their continuous learning opportunities by participating in in-service workshops, seminars and conferences where they have the chance to know other teachers, schools and programs (Quiambao, 2004).

The dimensions of the survey which is an evaluation instrument were distinguished as the items of general structure of the school, school employees, school administration, school-family cooperation and students. The general structure of the school, the safe environment provided by the school, physical equipment, rules or values of society, cleanliness and hygiene considered as the general rules of the school while the school workers item is thought as the composition of the conscious of us, the positive communication between the workers as whether the mutual decisions are taken or not, as for the school administration is thought as to whether the management supports the creative thoughts or not, overlook to problems, and whether it cares about its workers and their



problems or not being as a direction. School-family cooperation is called the school's dialogues with parents and effective communication, while the items related to the students are named as the financial status of the student, whether he / she can get support when he / she has a problem or if he / she complies with the school rules.

The organizational philosophy of the school is based on certain beliefs and values. This philosophy allows the school to act jointly. When the school's organizational philosophy supports an innovation initiative, this innovation initiative can be successful. As every action is based on a thought, every educational activity in the school should be based on the organizational philosophy of the school (Çelik, 2002: 64). As a result of participating in the activities in the school, teachers understand how to act in that school, what kind of personality that school has, and which common beliefs they have. Teachers who adopt school culture better and adapt to this culture become happier and more productive in their work (John, 1999: 1037).

School culture is a structure that can be felt as soon as you enter the school building and we can have more information as we observe the students, teachers and employees in the school. A lot of information can be obtained from the physical structure of the school, the garden, the benches in the garden, the corridors, the classroom layouts, the boards, the teachers' relationship with the students and the expressions on the faces of the school. Based on this literature; "How school culture affects teacher behaviours in the research "will be the problem of this research.

Sub-Problems

- a) How does school culture affect teachers' behaviors according to teachers' viewpoints?
- b) Is there a relationship between teachers' behaviors shaped by school culture and the following variables?
 - 1) Gender and age
 - 2) Marital Status
 - 3) Professional seniority
 - 4) Educational background
 - 5) Branch

Method

Research Model

Survey model is a kind of research model approach which aims at describing a state which existed before or still exists as it was/is. Research case, whether it is a person or an object, is defined on its own terms and as it is. (Karasar, 2008).

In this research, in which an answer to how school culture affects teacher behaviors was sought, a descriptive survey model was used as the case was defined as it was; that is; the effects of school culture on teacher behaviors were identified.

Study Group

Research population consisted of 164 volunteers of 1500 teachers who work in state or private schools in 2017-2018 School Year Spring Term in Başiskele Province in Kocaeli city. As seen in Table 1, 78% of research sample is female while 22% is consisted of males. 11% of the attendants are between the ages of 21-25; 37,8% are between 26-30; 25,6% are between 31-35; 6,1% are between 36-40; 19,5% are 41 and above . The 53,7 of the attendants are married while %46,3 are single. The professional experience of the attendants are as follows: The 39 % are between 0-5 years of experience; 30,5 % are between 6-10 years; 12,2% are between 11-15; 4,9% are between 16-20; 2,4% are 21-25 ; 11% are 26 years and above. 1,2 % of the teachers who participated in the research have associate degree; the 73,2 % have bachelor degree and 25,6% have master's degree. There are no



participants who do PHD. When we look at the data about master's degrees, it is seen that 1/4 of teachers have master's degree.

Data Collection

Firstly a literature review was done about the topic for this research. As a data collection medium, a scale composed of two parts which are personal information form and Teachers' Behaviors Scale which was developed by Arpaguş(2011) was used.

With the questions in the part of Personal Information Form, the data about teachers' gender, age, marital status, professional experience, educational background and branches were collected.

In teacher behaviors scale possible behaviors which could be observed in the scale were designated as 1) I work more actively 2) I am motivated 3) I accommodate myself 4) I am not affected 5) I try to change 6) I accept the situation 7) My motivation decreases 8) I feel stressed. As a result of factor analysis which was done in order to determine the construct validity of the scale, the scale was divided into five dimensions which are related to general school structure, school staff, school administration, school-family cooperation, and students. As a result of reliability analysis Cronbach a value of teacher behavior scale which is composed of 43 items were found as 0,768. This value was seen satisfactory in terms of reliability of the scale as it was higher than 0,70. If the Skewness and Kurtosis values are between +1,5-1,5, that the scale shows normal variation is supposed. Coefficients of skewness and kurtosis of subdimensions of the scale which are the items related to the general structure of schools (S=-,515 K=-,403), the items related to school staff (S=,178 K=-,297), the items related to school administration (S=-,235 K=-,403), the items related to school-family cooperation (S=,275, K=-,335), the items related to students (S=0,88, K=,621) are identified between -1,5 and +1,5. That is; the assessment instrument shows normal contribution.

Analysis of the Data Findings

Findings related to teachers personal information

The table below gives information about the contribution of the variables of gender, age, marital status, professional experience, educational background and branches of the teachers who composed research sample in the research process.

Table 1. Total points and Arithmetic Average of Teachers' Attitude Scale and Subdimensions of the Scale

Teachers' attitude scale subdimensions	N	x	Ss	5 point Likert Scale
<i>Items related to general school structure</i> (10 items)	164	36,0488	,418	3,60
<i>Items related to school staff (15 items)</i>	164	41,8171	,457	2,78
<i>Items related to school administration</i> (15 items)	164	16,3780	,249	3,27
<i>Items related to school administration</i> (7 items)	164	20,7439	,279	2,96
<i>Items related to students (6 items)</i>	164	17,7561	,291	2,95

The standart deviation of the items related to general school structure was found out ,418 and the average was found out 36,0488. The standart deviation of the items related to school staff was found out ,457 and the average was found out 41,8171. The standart deviation o the items related to school administration was found out ,249 and the average was found out 16, 3780. The standart deviation of the items related to school-family cooperation



was found out,279 and the average was found out 20,7439. The standart deviation of the items related to students was found out,291 and the average was found out 17,7561. When we look at the Likert test, we see that the items related to general school structure ara not much effective in changing the situation and they tend to adopt the situation in the items related to school staff, school administration, school-family cooperation and students.

Table 2. T-test results of the effect of organizational culture on teachers' behaviors according to gender variable

Scale Items	N	$\bar{x}$	Ss	sd	t	p	5 point likert scale
<i>Items related to general school structure</i>	128	36,3438	,43591	4,93172	1,334		
						,184	3,60
<i>Items related to school staff</i>	36	35,0000	1,10267	6,61600	1,133		
	128	42,1719	,47230	5,34349	1,466		
<i>Items related to school administration</i>						,226	2,78
	36	40,5556	1,22956	7,37736	1,227		
<i>Items related to school administration</i>	128	16,3750	,27011	3,05591	-,023		
						,982	3,27
<i>Items related to school administration</i>	36	16,3889	,61241	3,67445	-,021		
	128	21,0781	,33250	3,76183	2,284		
<i>Items related to students</i>						,024*	2,96
	36	19,5556	,42247	2,53484	2,832		
<i>Items related to students</i>	128	17,8906	,33391	3,77775	,869		
						,386	2,95

(*p<,05: There is a significant difference)

Whether teacher behaviors change according to gender was analyzed via t-test. A significant difference found out in the school family cooperation items according to gender variable . (t=3,76= 2,284;p<05). When arithmetic average values were analyzed , it was observed that females tended more to school family cooperation compared to males. (Female=4,214; male=3,91; t=3,76=2,284; p=,024).

Table 3: The Findings RelatedTo The EffectOf Organizational Culture On Teachers' Behaviors According To The Age Variable

Dimension	AGE	N	Mean Rank	df	X ²	f	p
<i>Items related to general school structure</i>	21-25	18	66,61				
	26-30	62	87,89				
	31-35	42	83,36				
	36-40	10	55,10	4	6,698		,153
<i>Items related to school staff</i>						1,903	
	41 and above	32	88,44				
	21-25	18	83,17				
	26-30	62	85,47			,792	
	31-35	42	75,88	4	2,979		,561
	36-40	10	66,70				



	41 and above	32	90,00				
<i>Items related to school administration</i>	21-25	18	45,83				
	26-30	62	100,66	4	22,687	6,580	,000*
	31-35	42	72,88				
	36-40	10	92,30				
<i>Items related to school - family cooperation</i>	41 and above	32	77,50				
	21-25	18	75,39				
	26-30	62	77,73				
	31-35	42	93,36	4	4,500	1,152	,343
<i>Items related to students</i>	36-40	10	67,30				
	41 and above	32	86,25				
	21-25	18	69,39				
	26-30	62	85,89				
	31-35	42	105,45	4	21,012	3,811	,000*
	36-40	10	60,70				
	41 AND ABOVE	32	60,00				

($P > .05$: There is no significant difference. $P < .05$: There is a significant difference)

Kruskal Wallis H-test was applied in order to identify teacher behaviors changed according to age variable and because of the fact that number of samples in the age categories are less than 30.

Items related to general school structure ($f=1,903$, $p=.153$), items related to school staff ($f=.792$, $p=.561$), ($f=6,580$, $p=.000$), items related to school administration ($f=1,152$, $p=.343$), items related to students ($f=3,811$, $p=.000$).

Items related to school administration and items related to students ($p=.005$) were identified as $p < .05$.

There is no significant difference in the items related to general school structure, items related to school staff and the items related to school-family cooperation.

LSD test was applied in order to find out in which age category there are differences in the items related to school administration and students. According to LSD results there is a significant difference according to the age category in the items related to school administration and students.

According to the age variable there is a significant difference in 21-25 age group, 26-30 age group and 36-40 age group in the items related to school administration.

Also, there is a significant difference between 26-30 age group and 31-35 age group. There is a significant difference again between 31-35 age group and 26-30 age group. There is a significant difference between 36-40 age group and 21-25 age group. There is a significant difference between 41 and above group and 26-30 age group. The reason behind these significant differences is that teachers have different approaches to school administration and students according to their ages. While young teachers were more idealist, senior teachers are more realistic.

In the items related to students there is a significant difference between 21-25 age group and 31-35 age group. There is a significant difference between 21-25 age group and 31-35 age group. There is a significant difference



between 26-30 age group and 41 and above age group. There is a significant difference between 31-35 and 21-25 and 41 and above age groups. There is a significant difference between 36-40 age group and 31-35 age group. There is a significant difference between 41 and above and 26-30 and 36-40 age groups.

Table 4. The Findings related to the effect of school culture of teachers behaviors according to the professional experience variable. (Anova Test Results)

Dimension	Professional Experience	N	$\bar{x}$	Ss	Variables	Squares Total	Sd	Squares Average	F	P
<i>Items related to general school structure</i>	0-5 years	64	35,90	5,51	Between groups	2,134	5	,224	,775	,569
	6-10 years	50	35,40	5,25						
	11-15 years	20	36,90	5,77		44,582	158	,289		
	16-20 years	8	38,75	6,94						
	21-25 years	4	38,00	3,46	Total					
	26 and above	18	35,77	4,10		46,716	163			
	Total	164	36,04	5,35						
<i>Items related to school staff</i>	0-5 years	64	41,09	5,44	Between groups	,355	5	,398	,918	,062
	6-10 years	50	42,40	5,33						
	11-15 years	20	39,70	7,04		26,635	158	,158		
	16-20 years	8	45,50	8,76						
	21-25 years	4	47,50	0,57	Total					
	26 and above	18	42,22	5,30		26,991	163			
	Total	164	41,81	5,86						
<i>Items related to school administration</i>	0-5 years	64	16,93	2,92	Between groups	9,422	5	1,005	2,590	,028*
	6-10 years	50	15,32	3,24						
	11-15 years	20	17,40	2,72		56,920	158	,388		
	16-20 years	8	17,25	4,92						
	21-25 years	4	14,00	1,15	In group					
	26 and above	18	16,33	3,10		66,342	163			
	Total	164	16,37	3,18						
<i>Items related to school - family cooperation</i>	0-5 years	64	20,56	4,06	Between groups	1,200	5	,199	,756	,583
	6-10 years	50	20,84	2,86						
	11-15 years	20	19,80	3,63		41,397	158	,263		
	16-20 years	8	21,50	2,32						
	21-25 years	4	20,50	0,57	In groups					
	26 and above	18	21,88	4,24		42,597	163			
	Total	164	20,56	4,06						



	Total	164 20,74 3,57	Total				
<i>Items related to students</i>	0-5 years	64 17,53 4,41	Between Groups	5,527	5	1,737	5,038,000*
	6-10 years	50 19,04 2,87					
	11-15 years	20 17,80 2,09		57,647	158	,345	
	16-20 years	8 13,00 2,26	In Groups				
	21-25 yıl	4 20,00 1,15					
	26 ve üstü	18 16,55 3,46		63,173	163		
	Toplam	164 17,75 3,73	Toplam				

According to the results of Anova Test which was done in order to determine whether teacher behaviors change according to the variable of professional experience, it is seen that there is a significant difference in the items related to school administration($p=,028$) ($f=,775$) and students. LSD test was applied in order to determine in which group of professional experience the difference in the items related to($p=,000$) school administration and students was seen.

According to LSD results;

There is a significant difference between 0-5 years of professional experience and 6-10 years ($p= 0,007$) and 21-25 ($p=0,069$) years. There is a significant difference between 6-10 years of professional experience and 0-5 years and 11-15 ($p=0,013$) years. There is a significant difference between 11- 15 years of professional experience and 6-10 years ve 21-25 ($p=0,048$) years. There is a significant difference between 16-20 years of professional experience and 6-10 ($p=0,106$) and 21-25 ($p=0,09$) years. There is a significant difference between 21-25 years of professional experience and 0-5, 11-15 and 16-20 years. There is a significant difference between 26 years and above years of professional experience and 16-20 ($p=0,49$) years.

In the items related to students;

There is a significant difference between 0-5 years of professional experience and 6-10 ($p=0,025$) ve 16-20 ($p=0,001$) years. There is a significant difference between 6-10 years of professional experience and 0-5, 16-20 ($p=0$) and 26 and above ($p=0,011$) years. There is a significant difference between 11-15 years of professional experience and 16-20 years. There is a significant difference between 16-20 years of professional experience and 0-5, 6-10, 11-15, 21-25 and 26 and above ($p=0,079$) years. There is a significant difference between 21-25 years of professional experience between 16-20 years. There is a significant difference between 26 and above years of professional experience and 6-10, 16-20 ve 21-25 years of professional experience.

Result, Argument and Suggestions

The obtained results and the suggestions which were improved based on these results takes place in this part of research. This research was done for the aim of determine how the school culture affects the teachers' behaviors. Also, the meaningful relation was sought between teachers' genders, ages, marital status, seniority, educational background and their faculties to teachers behaviors depending on their school culture in the direction of the subgoals of the research.

- When we evaluate the research results on the basis of similar research, Arpaguş (2011), it was seen that the positive cases about the school culture motivate teachers and enable them to work more actively, but the negative cases cause to be demotivated, get stressed, and also it was seen that teachers try to change this situation. When these results were considered, firstly the positive and negative cases about the school culture



should be set and the causes of these situations should be researched to work more productive. The necessary arrangements should be done to correction of the negative cases or to whip positive cases into shape.

- While the correction of the negative cases prevent the falling of product, making the positive cases into better conditions makes teacher work more actively. So, it will reflect on students positively. Because the managers are seen as the director of the regulations and variance of the school culture, the managers have the biggest responsibility about that topic. The managers should arrange the school culture in such a way that taking the highest rating from teachers and students.

When the whole datas come up in general, it was seen that the positive cases about the school culture affect the teachers' behaviors positively, teachers get motivated or work more actively; the negative cases get the great majority of teachers demotivated or they try to change the situation.

There should be a connection between the school's goals and individuals' goals(Özdemir, 2000, 18). Ensuring that connection is the most important step of composing of the school culture. (Şişman, 2011). It is said that the schools which have the school cultures are effective schools at the same time.

When foreign examples are investigated, J. Barr's research about "the relationship between teachers' empathy and perceptions of school culture shows that the relationship between teachers is related to their perception level of school culture and positive school culture affects teachers' relationship directly. As another example, Andreas Kythreotis's study "The Influence of School Leadership Styles and Culture on Student Achievement in Cyprus Primary Schools" shows that styles and cultures of school administrators have a different effect on different grades. For instance, while school culture affects student achievement in class X, it may not have an effect on class Y. This shows that how school culture phenomena is perceived has an effect on student achievement. In Lassig Carley's research (2009) "Teachers' Attitudes Towards the Gifted: The Importance of Professional Development and School Culture" , effects of school culture and professional development were investigated and it was found out that school culture has an undeniable effect on teacher behaviors.

- According to these results, if the educational institution has the school culture which was adopted by the whole workers, there is a healthy school style. And it makes the educational institution successful school. In other words, the school culture, school climate and the education quality of the school act parallel with one another. One of them can affect the other one in positively or negatively.
- According to variables in survey; while there isn't any significant difference between questions about the general conformation of the school, questions about school workers, questions about the school administration and students, there is a significant difference about parent-teacher association questions. This reflects us that women and men teachers think differently about parent-teacher association.
- According to age variable; there is a significant difference about the school administration and students questions. This shows us that the age variable has a great effect on students and school administrations questions. According to years of seniortiy; there is a significant difference about school administrations and students. This shows us that the view of the teachers about school administrations has discrepancy related to their years of seniority. As teachers age and seniorty has increased, the adaptation to organisational culture has increased further.

When we compare this project with the others, in a sample of Arpağuş(2011);

- Teachers are agree with the positive questions, they feel more motivated when they see a positive school culture or a teacher behavior. Likewise, when they see a negative case, they get demotivated or they accept the situation. It is seen that they are not unresponsive and they try to change the situation in some cases. The leader



of the organization has an important role on composing the school culture. If a good leader raises, there will be a good organization culture.

- When compared with another study, Erdoğan (2017); educational institutions are the organizational structures that should have continuity and maintain their social existence through certain relationships. Creating a healthy school culture is not an easy task. It is a process that requires planned and programmed work. In this case study, social and cultural characteristics of these structures are explained in certain aspects. School is not only an organization that produces culture, but also an organization that transfers culture (Çelik, 2002, 43). Therefore, it is necessary to establish a very good Likewise, the importance of giving importance to school culture is evident in our own study. communication network within the school in order to transfer the cultural values of the school to the future generations in a healthy way. In addition, as a result of the study, it has been clarified what the school culture affects or what it is affected by and its reflection on the education environment and quality.

- In another study, Karadağ (2015) when the opinions of the school principals participating in the study are examined, It is seen that they draw attention to task culture and cultural elements that point out the basic values of school. Similar to this finding of the study, Hoy and Miskel (1991) listed the elements of school culture as learning and teaching cooperation, efforts for academic success, and openness in communication. Terzi (2005), on the other hand, defined the dominant cultural elements within the framework of bureaucratic culture, support culture, achievement culture and duty culture classification. In the research conducted by Oğuz and Yılmaz (2006) with teachers, it was concluded that the existing cultural structure in primary schools is more of a “support culture” dimension.

- When the studies on organizational culture are examined, it is observed that there is a high level of cooperation and solidarity among the employees in the organizations with strong organizational elements, there is an increase in the motivation, commitment and performance of the employees (Erdem and İşbaşı, 2001) and the organizational success depends on the strong organizational structure (Lawrence, 2000). Terzi (2000) stated that the school should have an effective organizational culture in order to transfer social culture which is one of the universal aims of the school to the younger generations, to ensure the socialization of the individual and to gain knowledge, skills and attitudes in the desired direction. In defining the weaknesses of school culture, it is seen that the emphasis is placed on weak cultural elements that arise from teachers and students, and on the negative effects of physical structure and insufficiencies of the school budget. Studies of school culture indicate that the architecture and physical structure of the school building give messages about what is important and valuable at school. It is known that physical environment strengthens the commitment to school in many aspects. Symbols and artifacts within the school can be a message of the school's important values and beliefs. However it is thought that weak school culture characteristics such as irregularity based on sincerity, lack of communication, failure to develop a school climate based on honesty and trust will cause possible problems such as members' developing low success expectation against each other, loss of motivation, increasing suspicion and hostility, observation of destructive conflicts, lack of school commitment behavior, nonparticipation in the process of determination and adoption of rules, the emergence of communication problems and reduction of love and respect. As a matter of fact, Robbins (1994) stated that in organizations with weak organizational culture, the ties between employees are quite loose.

- Creation or modification of culture; It is difficult in organizations such as schools, where cultural, organizational and political factors influence the decision-making process. There may also be psychological and attitudinal barriers to the intended change process (Berry, 1997). In particular, external threats constitute an important obstacle to change school culture (Buch and Rivers, 2001). In addition, trust and cooperation should be combined to achieve and sustain the performance culture (McGraw, 2003). Successful school leaders develop a culture of collegiality, collaboration, support and trust and this culture takes root within the leader's democratic, social justice values and beliefs (Gurr, Drysdale ve Mulford, 2005). In such an environment, school



leaders empower, approve and appreciate employees. Moreover, leaders support creativity, collaboration, teamwork, trust, problem solving, open and honest communication. As a result of these, employees have the sense of belonging. Employees integrate with their organizations (Davenport, Schwartz ve Elliott, 2003).

- According to the data obtained from the research, the majority of teachers who feel that they are not supported by the school administration have stress or their motivation decreases. It is seen that the inadequacy of the physical structure in the school limits the ability of teachers to carry out their in-class activities, so that an effective learning environment does not occur and their motivation decreases. The Ministry of National Education may revise old schools and assist schools in providing missing materials to solve these problems.
- In addition, teachers can be provided with in-service trainings on issues related to the development of school culture. Thus, it can be ensured that teachers carry out various activities in order to create a strong culture in the school.
- The concept of school culture can be made available to parents, students and other school staff.
- The impact of school culture on student, school principal and parent behavior can be considered as a different research topic.
- Strategies to strengthen school culture can be identified with the participation of shareholders.

References

- Açıkalın, Aytaç (1994). School Management with Social, Institutional and Technical Aspects, Ankara.
- Algan, Erhan (2005). Effectiveness Level of Organizational Culture, İstanbul, 1998
- Almedia, M. J. "A Middle School Case Study on Principal Behaviors Effecting Change in School Culture", Johnson & Wales University Unpublished Doctoral Dissertation.
- Arslantaş, Halis Adnan, (2008). "Organizational Culture", Eastern Anatolia Region Research.
- Aşıkoğlu, Meral (1996). Motivation as a Tool to Direct Human Resources to Efficiency, İstanbul.
- Bayrak Kök, S., Özcan, B. (2012). The relationship between the factors that affect the formation of organizational culture and organizational commitment: A research in the banking sector. Entrepreneurship and Development Journal 7 (2).
- Berberoğlu, G. N. (1990). Organizational Culture and Contribution to Managerial Activity. AÜ İİBF Journal, 8 (1- 2), 153-161
- Cheng, Y. C. (1993). Profiles of organizational culture and effective schools. School Effectiveness and School Improvement, 4(2), 85-110
- Çelik, V (2002). School Culture and Management, Ankara: Pegem A Publishing.
- Çelik, Vehbi (2009). School Culture and Management, Ankara.
- Çetin, Münevver (2004). Organizational Culture and Organizational Commitment, Ankara.
- Deal, Terrence E., Peterson, Kent D. (1998). "How Leaders Influence the Culture of Schools", Educational Leadership, Volume:56, Number:1.
- Demirtaş, Hasan, Güneş, Hasan (2002). Dictionary of Educational Administration and Supervision, Ankara.
- Demirtaş, Zülfü (2010). "The Relationship Between School Culture and Student Achievement", Education and Science, Volume: 35, Number: 158.
- Ediger, M. (1997). Improving the School Culture. Education, Volume: 118. Number: 1 (36-42).
- Fırat, NeclaŞahin (2010). "Perceptions of School Principals and Teachers on School Culture and Value Systems", Education and Science, Volume: 35, Number: 156.
- Fullan, M. (2001) Leading in a culture of change. San Francisco: Jossey-Bass Publishers



- Gümüşeli, A. R. (2006). School Culture and Leadership. Artı Education Journal, 8.
- Hargreaves, A. (1997). Rethinking educational change: Going deeper and wider in the quest for success. ASCD Yearbook. Alexandria, VA: ASCD.
- John, E. S. (1999). Organizational Culture and Employee Retention, Academy of Management Journal, 35(5), 1036-1056
- Köse, S. (2001). Factors that make up organizational culture. Celal Bayar University Management and Economics Journal, 7, 219.
- Lunenburg, F. C. (2011). Understanding organizational culture. National Forum of Educational Administration and Supervision Journal, 29 (4), 1-12.
- Özdemir, Asım (2006). "Behaviors Expected and Observed by School Principals in Establishing and Introducing School Culture to the Region", Turkish Educational Sciences Journal, Volume:4, Number:4.
- Özdemir, S. (2000). Organizational Innovation in Education, Ankara: Pegem A Publishing.
- Özkan, Yıldırım (2007). "Perceptions of Primary School and Secondary School Teachers and Administrators on Organizational Culture", Celal Bayar University Institute of Social Sciences Master Thesis.
- Robbins, P.S. (1991). Organizational behavior concepts, controversies and applications, Prentice Hall, Englewood.
- Şişman, Mehmet, (2007). Organizations and Cultures, Ankara.
- Şişman, M. (2011). Leadership of Teaching, Ankara: Pegem Publishing.
- Üçok, Tengiz (1993). Management Principles, Ankara.
- Üstüner, Mehmet (2006). "Validity and Reliability of the Attitude Scale Towards Teaching Profession", Educational Administration in Theory and Practice, Number:45.
- Yıldırım, Bilal (2001). "The Effect of Cultural Leadership Roles of School Principals on Teachers' Job Satisfaction and Professional Ethics", Fırat University Institute of Social Sciences PhD Thesis.



Social Inclusion through Youth Work and Lifelong Learning

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Abstract

Over the last decade, in practice, youth work has become more and more an innovative part of social work that has helped to achieve European goals for the sustainable development of the individual and society. Despite the lack of normative regulations, established standards in practice and state educational standards in the field, the practice of youth work is one of the mechanisms for social inclusion of this risk group from society through its means of action - training, mediation, counseling and support. Regardless of the different definitions of youth work, a unifying element is to define it as a means of personal development, social integration and active citizenship among young people. The practice of social work with young people calls for a focus on them as a potentially vulnerable group at risk of poverty, violence, discrimination and social exclusion. Young people are among the most affected by the economic and social insecurity surrounding our society, as well as by the collapse of the ethical and moral norms of modern times. Social youth work is subject to the principle of lifelong learning, as its main contingent is the people under the age of 29, those who have dropped out of the education system who have completed their formal education or are unable to study there. In the context of the present, youth work is a critical factor for personal, professional and social development. Today's challenge is to build a unity between the social sphere, formal education and lifelong learning so as to create prerequisites for building a person who is competitive on the global labor market. In this way, it responds to the expectations of society related to the establishment and consolidation of a sustainable social and educational system that responds to the diverse needs of the citizens of today's democratic society and provides access to optimal learning conditions. The purpose of this article is to draw the link between social youth work and the principles of lifelong learning - elements that promote social inclusion. In addition to the positives, problematic areas of practice have been highlighted to guide the discussion towards validating this share of social work. The present analysis has the ambition to draw conclusions to support the process of validating practice and acquiring the legitimacy of youth work.

Keywords: Social, Inclusion, Lifelong learning, Youth

Introduction

The modern thinking and contemporary lifestyles reflect on individuals, families, society, and socio-political dynamics reflect on the most vulnerable groups in the countries, such as adolescents and young people. Good practices, reflecting European and national policies, create compensatory mechanisms to prevent social exclusion and social passivity. These, adapted to local reality and environmental conditions, are a positive model for social inclusion and prevention through activities based on non-formal education. It is in the practice of the youth worker that the link between social work and lifelong learning is formed as a support for social inclusion.

The European Community is primarily committed to creating conditions for equal social, economic and educational opportunities for young people. This is clearly demonstrated in the Treaty on the Functioning of the European Union (Articles 19, 145-150, 151-161 TFEU), in which the fight against poverty and social exclusion is defined as fundamental for the European Union. (Treaty on the Functioning of the European Union



(TFEU)) Another key document containing the vision, priority axes and activities to prevent exclusion and social inclusion is "Europe 2020: A strategy for smart, sustainable and inclusive growth" which follows the new European pathway, geared towards creating a sustainable future and improving the living standard of the modern human. The main goal of the strategy and the national plans for its implementation are the reduction of demographic, social and economic problems accumulated over the years. (Europe 2020: A strategy for smart, sustainable and inclusive growth, COM (2010). EU, 2010) The analysis of this article is linked to the need to clarify key concepts such as "social inclusion", "youth work", "lifelong learning". The authors of the article adhere to the formulation in the concept of the Social Inclusion General Report from 2004, which states that "Social Inclusion is a process that ensures that people at risk of poverty and social exclusion are given the opportunities and resources they need to participate in economic, social and cultural life and enjoy the standard of living and well-being considered for normal in the society in which they live. This process ensures greater participation in the decision - making process that affects their lives and greater access to functional human rights." (Joint report on social inclusion, European Commission in the Social Protection Committee, 2004) In this sense, social inclusion as a process means creating conditions for equality and equal opportunities among vulnerable groups of people to facilitate their full participation. Object of our attention is this group of people we designate as young people. They, according to European regulations and the Law on Youth in Bulgaria, are "persons aged 15 to 29 years" (Law on Youth, Prom., SG, no. 31 of 20.04.2012) The main aim of the authors is to track the opportunities for social inclusion of young people up to 29 years of age through youth work. It is seen as an innovative part of the social work. The legal definition of the term "youth work" is defined in the Recommendation of the Committee of Ministers as "... covering a wide range of social, cultural, educational, environmental and/or political activities through, with and for young people in groups or individually. Youth work is done by professionals and/or volunteers and is based on non-formal and informal learning processes targeted at young people. Youth work is a typical social practice ... " (Recommendation CM/Rec (2017)4 of the Committee of Ministers to member states on youth work)

In the focus of youth workers are young people up to 29 years, often coming from vulnerable groups - those at risk of poverty and social exclusion, dropouts from the educational system, minority groups. It is here that the practice of social work with young people is based on the concept of lifelong learning. It is a modern formulation of the idea that people learns while they're alive. The characteristics of lifelong learning are set out in a number of community documents. The European Commission is developing a "Lifelong Learning Memorandum (2000) which ..." sets the foundations for the further development of youth policies in education and training by addressing the need for lifelong learning and explicitly identifying aspects of non-formal learning ... " (Memorandum on lifelong learning, SEC 2000 (1832), Commission of European communities) The document raises the issue of recognition of competences acquired through non-formal and informal education and underlines the importance of European youth programs. As a result of the Memorandum, a European Reference Framework for Key Skills for Lifelong Learning has been established defining eight key competences. In this way, the European Union focuses on developing specific "key competences" for young people, as described in a



Recommendation of the European Parliament and Council of Europe, covering the acquisition of "knowledge, skills and attitudes that help learners achieve personal fulfillment and, at a later stage of their lives, to find work and participate in the life of society ". (Recommendation of the EU Parliament and of the CoE 18 December 2006 on key competences for lifelong learning) The main aim of the present work is to show the possibilities for social inclusion of young people in the society through youth work and lifelong learning.

Youth work as a form of social work

The authors of the article accept youth work as a form of social work that handles informal educational methods. It covers various target groups, including young people dropped out of the education system, graduates, those who identify the need to acquire new knowledge, skills and competences. It is here that it is necessary to present and analyze the essential theoretical and practical legal acts, related to social inclusion through youth work and lifelong learning in the sense of their scientific and practical significance.

In the specialized literature, the history of youth work is seen as a history of unfinished professionalism. (History of Youth Work in Europe, p. 213, 2003, CoE) This is clearly visible in the practice review in the different countries and the professional characters that are filled with this share of social work. Regardless of the different traditions and definitions, there is a common understanding of the core function of youth work, which is defined in the Committee of Ministers Recommendation, and according to which "youth work motivates and supports young people in seeking a constructive path in life, contributing to their personal and social development, and for society as a whole. " (Recommendation CM/Rec (2017)4 and exploratory memorandum, 2017, CoE) The aim of the profession is to support the social inclusion and learning of those young people at risk of social exclusion. This is achieved by empowering and engaging young people in initiatives and activities tailored to their needs, interests, ideas and experiences. These processes are based on non-formal and informal learning, in which they acquire the knowledge, skills, values and behavior necessary for their personal development. For non-formal education we understand "any organized educational activity conducted outside the formal system of providing selected types of training to specific subgroups in the population, adults and children" (Coombs & Ahmed, 1974, p. 8). The definition of informal (or aformal) learning was given by the European Commission in 2001, defining it as "learning as a result of everyday activities of man, related to his work, family and leisure. It is not structured and usually does not lead to certification. It may be conscious, but in most cases it is unconscious (or accidental, by accident). "(European Commission, Communication of life long learning, 2001, 32-33).

In many European countries there is no professional and educational profile of the youth worker. In Bulgaria, with the introduction of the Youth law, the term "youth worker" is defined for the first time in a normative act. According to Art. 32. of the Youth law: "A youth worker is an adult who has undergone special training for youth work and/or has gained professional experience of working with youth and performing youth activities." (Law on Youth, Prom., SG, no. 31 of 20.04.2012) In the National Youth Strategy in Bulgaria (2012-2020), youth workers are seen as the main resource for the implementation of the youth policy objectives and states that they



are specialists with a significant role for the personal, social and economic development and empowerment of young people. (National Youth Strategy (2010-2020), adopted by the Council of Ministers on 06.10.2010) In the course of meeting the goals of the European and national strategies, the profession of "youth worker" was introduced into the National Classifier of Occupations and Positions in Bulgaria, but the country still lacks a commonly accepted definition of what is youth work and what is the professional and educational profile of professionals. The practice of social youth work indicates that the youth worker does not require excessive unilateral specialization, and "everyone must have as much professional knowledge as possible". (Role of ethical principles in social work team in sheltered housing, K. Benkova, N.Vlaeva, S.Georgieva, Trakia Journal of Sciences, vol 13, 2015)

In this regard, the profile of the specialist involved in social work with young people is clearly demonstrated in a study by the Ministry of Youth in Romania in 2016. It states that the youth worker should have a large set of knowledge and skills to work in a multicultural environment, flexibility, skills to handle different mechanisms to prevent social exclusion, to master informal learning approaches, to have consultative capacity and empathy. (Study of the needs of youth centres and youth workers, FITT, 2018).

All these requirements to the practice of the youth worker are a guarantee of effective social inclusion. However, the issue of professional and educational training of specialists is also coming to the fore. Although in the Recommendation of the Committee of Ministers for Youth Work one of the top priorities is to build a coherent and flexible, competence-based framework for education and training in a European context, the youth worker may have a different kind of education, putting him in a situation, in which the professional guild does not accept it either as part of the social sphere or as a pedagogical frame. The need for an educational and professional framework of the "youth worker" specialist requires the utmost attention to ensuring adequate education and vocational training for employees in the sector. Reflection of the lack of professional training is the problem of quality of service for young people, against the backdrop of ever-increasing needs.

Lifelong learning as a form of social inclusion

Such practical cases are relevant not only to the profession of the youth worker but also to the concept of lifelong learning. Policies relevant to the formulation that a person learns while he is alive are also the subject of contradiction and "are repeatedly described as highly fragmented, sporadic and often contradictory in their goals, in terms of their target groups and means of implementation." (Dimensions of young adult policies impact on a comparative principle at an European level, Yulia V. Dzhubarova, Blaga P. Madzhurova, Stefan A. Raichev, Dobrinka I. Stoyanova) With regard to practice, lifelong learning is based on three main forms:

- Formal education and learning;
- Non-formal learning;
- Informal learning.



It, like the youth work, falls into a complicated situation where there is a gap between acquired knowledge and skills and their validation. Responding to identified challenges and a strong focus on youth issues, the EU 2020 Strategy for Smart, Sustainable and Inclusive Growth was launched a decade ago. In the framework of the "Youth in action" and "Agenda for new skills and jobs" flagship initiatives, the European Commission is committed to promoting recognition of non-formal and informal learning and calls for the development of knowledge, skills and competences to achieve economic growth and employment. The accompanying flagship initiatives underline the need for more flexible training models that can improve the entry and advancement of the labor market, facilitate the transition between work and learning and stimulate the validation of non-formal and informal learning. (Europe 2020: A strategy for smart, sustainable and inclusive growth, COM (2010). EU, 2010). This strategic document reflects European education policy, focusing on topical issues related to youth, lifelong learning and knowledge-based economy, thus shaping informal education programs.

Responding to Europe's needs to foster the personal development of young people, the Erasmus + program. It is a work of the EU and aims to support education, training, youth and sport in Europe, thus contributing to the Europe 2020 strategy for growth, jobs and social equality. The specific issues on which the program is working are:

- Reducing unemployment, especially among young people;
- Promoting adult education, especially the building of new skills and skills that are sought by the labor market;
- Encouraging young people to participate in European democracy;
- Supporting innovation, cooperation and reforms;
- Reducing early school leaving;
- Promoting cooperation and mobility among EU partner countries. (ec.europa.eu/programmes/erasmus-plus/about_bg)

Another European Union initiative launched in 2018 is the European Solidarity Corps. It enables young people between the ages of 18 and 30 to volunteer or work on projects in their own country or abroad to help people in difficulty. The program implements European solidarity values in practice and provides the opportunity to learn new knowledge and skills. (europa.eu/youth/SOLidARity_bg).

In order to be practical, the knowledge and skills acquired should be validated and certified. The lack of documented evidence is an obstacle to the effective inclusion of vulnerable groups in the social, labor market and economic life of modern society.

Conclusion and recommendations

This article attempts to analyze the regulatory and policies in Europe on the social inclusion of young people through youth work and lifelong learning. In the course of the study, the political will is clearly demonstrated by



the need to unite the common efforts of the countries of the European Union to create unified legal acts related to the realization of social inclusion and awareness of the positive effects and the importance of validating non-formal education and recognition of youth work in educational and professional space.

Despite the insufficiently developed legal regulations on lifelong learning and youth work, they are in practice invariably linked and support the process of social inclusion of young people up to 29 years. The study of international, community and national norms shows that they are incomparable, as in Bulgaria there are no specific parameters and legal norms of non-formal education and youth work, which are an essential element of the social work with young people within the meaning of the European normative framework. In this sense, according to the authors needed to validate the practice of social youth work, there are several key elements:

- Legal regulation of youth social work;
- Professionalization of the profession of "youth worker";
- Creating educational standards for youth work;
- Establish mechanisms to validate the knowledge and skills acquired through non-formal education in the context of lifelong learning.

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References

- Coombs & Ahmed, 1974 , p. 8
- Dimensions of young adult policies impact on a comparative principle at an European level, Yulia V. Dzhabarova, Blaga P. Madzhurova, Stefan A. Raichev, Dobrinka I. Stoyanova
- Europe 2020: A strategy for smart, sustainable and inclusive growth, COM (2010). EU, 2010
- European Commission, Communication of life long learning, 2001, 32-33
- Joint report on social inclusion, European Commission in the Social Protection Committee, 2004
- History of Youth Work in Europe, p. 213, 2003, CoE
- Law on Youth, Prom., SG, no. 31 of 20.04.2012, in force as of 20.04.2012, amended, num. 68 of 2.08.2013, in force from 2.08.2013, no. 14 of 20.02.2015
- Memorandum on lifelong learning, SEC 2000 (1832), Commission of European communities
- National Youth Strategy (2010-2020), adopted by the Council of Ministers on 06.10.2010
- Recommendation CM/Rec (2017)4 of the Committee of Ministers to member states on youth work, Adopted by the Committee of Ministers on 31 May 2017 at the 1287th meeting of the Ministers' Deputies
- Recommendation of the EU Parliament and of the CoE 18 December 2006 on key competences for lifelong learning .
- Recommendation CM/Rec (2017)4 and exploratory memorandum, 2017, CoE



Role of ethical principles in social work team in sheltered housing, K. Benkova, N.Vlaeva, S.Georgieva, Trakia

Journal of Sciences ,vol 13, 2015

Study of the needs of youth centres and youth workers, FITT, 2018

http://ec.europa.eu/programmes/erasmus-plus/about_bg

https://europa.eu/youth/SOLidARity_bg



Taxation Limits by the Property Protection in the Charter of Fundamental Rights of the European Union: the Portuguese Study Case

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Abstract

The Welfare State is increasingly concerned with providing its citizens with an improvement in their living conditions, especially in the protection of universal and free health, free education, unemployment protection and retirement, but to this end it has to obtain financial resources from these same citizens. Each of us thus supports a growing tax burden in return for our social benefits. This study analyzes the tension between the duty to pay taxes and the protection of property in Portugal, to know what is the maximum limit that each one has to pay to avoid confiscation. Methodologically, among others, we rely on the protection of property given by the Convention to the “Protection of Human Rights and Fundamental Freedoms” and the Charter of Fundamental Rights of the European Union, as well as, the judgments of the European Court of Human Rights, in addition to statistical data of the Portuguese Tax and Customs Authority.

Keywords: Fundamental Rights, Social State, Taxes; Property Protection

Introduction

Our analysis focuses on the study of the main Human Rights instruments under the First, Second and Third Generations, intertwined with the interpretation applied in the rulings of the European Court of Human Rights, delivered in the Grand Chamber judgments and made available on its website, under the search «Double Taxation» and that translates into only twelve.¹

This study is about the obligations assumed by the Minimum and Maximum States towards their people and their integration into their Social Contract and which must necessarily be translated into financial self-satisfaction through fair taxation, whether analyzed in their domestic legislation, above all in the obligations assumed between States, through the norms of International Tax Law, in the international aspect, presenting as an example the tax statistics in Portugal.

Method

The method of the research is based on a technical-legal analysis of the statistical data on income taxation in Portugal, which is drawn up by the Portuguese Tax and Customs Authority, in the multiple International Conventions on Human Rights, and the Judgments of the European Court of Human Rights.

1. From the Human Rights conceptualization and evolution

¹ See link: HUDOC – European Court Human Rights:

[https://hudoc.echr.coe.int/eng#{\"fulltext\":\[\"\(\\\"double taxation\\\"\)\"\],\"documentcollectionid2\":\[\"GRANDCHAMBER\",\"CHAMBER\",\"DECGRANDCHAMBER\",\"ADMISSIBILITY\",\"ADMISSIBILITYCOM\"\]}](https://hudoc.echr.coe.int/eng#{\) Consulted on 2019-04-26.



Human Rights require a cross-sectional view based on different dimensions such as historical, political, social, cultural, economic / financial. Oliveira (2012) p. 8². In fact, "universal awareness of the value of fundamental rights, or at least of an essential core of rights linked to the recognition of the dignity of the human person, is one of the most significant political, cultural and legal phenomena." Miranda (1989), p. 7, it has to be interpreted in the global context, time and space, politically, legally and judicially, in its national, regional, international and even organizational dimensions.

Human rights must correspond to what has been defined by the United Nations system and in particular to the *Universal Declaration of Human Rights* of 1948, and everything that pertains to earlier periods should be defined as Fundamental Rights. By the way, when thinking about *citizenship* we should remember Gouveia (2003) pp. 55-56 by stating that «similarly would play a major role in the liberal revolution of the XVIII e XIX centuries, the intention was established to establish the status of person, speaking of the true position of "citizen"». It is because not all and / or all (men and women) were recognized as citizens and, for all this, 1948 marks, thus, the true global recognition of Human Rights for all Humanity.

It's important to be aware that in the Middle Ages the rights assigned by princes arise as rights of each social category, as privileges or prerogatives. The *Magna Carta*³ - See yourself for all, Fernandes (2004)⁴ - does not go beyond that, however the *Petition of Rights* (1628), and the *Bill of Rights* (1689), establish the rights of the English people, as it. However, «the biggest change happened (...) in XVIII century, with the *Virginia Bill of Rights* and *United States Declaration of Independence* (1776)" but the paradigm change was a reality with the *Declaration of the Rights of Man and Citizen* 1789⁵, recognizing the rights to all citizens, considering them, by nature, free and equals.

In 1979 Karel Vasak applies the terminology «generation» in order to demonstrate the evolution of Human Rights along the ideological line of the French Revolution- «*Freedom, Equality e Fraternity*» and Bobbio consecrated the phases of these generations due to the evolution of humanity. Generations are a necessary context for understanding the evolution of Human Rights, but it is true that "the issue of Human Rights is still complex. (...) It puts it at the heart of politics, at the center of relations between Power and the Person. It thus determines the policy rights» Mourgeon (1982), p. 26⁶.

Briefly and succinctly we can say globally that First Generation rights refer to individual rights, civil and political in nature, that is, they are considered the generation of negative freedoms because they limit State power and action. The *Second Generation* develops *Equality* rights - economic, social and cultural - in which the State has an active and intervening role. The *Third Generation* embraces the rights of the community to *solidarity* and *fraternity*. The *Fourth Generation*, which emerges in the 19th century. It is the result of the globalization and universalism of Human Rights. It is related to democratic participation, pluralism, bioethics and the limits of genetics, all supported by the protection and defense of the dignity of the human person. The *Fifth Generation* is mainly based on gender issues and all their complexity. Finally, the so-called *Sixth Generation* sets the limits to genetic manipulation, that is, part of the bioethics plan.

² OLIVEIRA, Samuel Antonio Merbach, A *Teoria Geracional dos Direitos do Homem*. in:<http://www.theoria.com.br/edicao0310/a_teorias_geracional_dos_direitos_do_homem.pdf>. Consulted 26-05-2019, p.18

³ Arising from the Monarchical Parliamentarism, political regime that was implemented in England, after the revolutions of the century of the XVII. The king's power became limited under political control of the State and parliament. From this follows the Magna Carta of 1215 which is to this day the symbol of legislative advancement, as it gives the full right to the "free men" (Men with possessions and members of the Nobility) of England, by the King, who does not should abuse their power to coerce them.

⁴ FERNANDES, António, *Direitos Humanos e Cidadania Europeia – Fundamentos e Dimensões*, Almedina, Coimbra, 2004

⁵ In 1789, the French people succeeded in abolishing the absolute monarchy, allowing the establishment of the First French Republic, thus, after the abolition of feudalism, the Declaration of Human and Citizen Rights, adopted by the National Constituent Assembly which would be the first step towards drafting of the Constitution for the French Republic.

⁶ MOURGEON, Jacques, *Os Direitos do Homem*, Publicações Europa-América, Mira-Sintra, 1982



In a regional dimension, in 1950 the Council of Europe System emerged, with the *European Convention on Human Rights and the Additional Protocols*, as well as the *European Social Charter*⁷, which dates from 1981, which aims to guarantee Human Rights and Fundamental Freedoms to all, recognizing and protecting Housing, Health, Education, Employment, Social Protection, Integration and Participation and Non-Discrimination and the interdependence of United Nations Human Rights legal documents and, in particular, arising from the European Convention on Human Rights.

As Gabriella Battaini Dragoni⁸ said: «*The social and economic rights guaranteed by European Social Charter are fundamental rights which parallel and complement the civil and political rights enshrined in the European Convention on Human Rights. (...)*» e reforça o facto de «*(...) the Charter represents a vital guarantee in terms of safeguarding the exercise of democracy in Europe*».⁹

2. Dependence of the Social Rights and the Principle of Equality: analysis of its evolution and violation through the application by states of their Human Rights tax policies

The focus of the subject of this study focuses on its regional framework and the European Convention on Human Rights and Social Rights in general, and on the Principle of Equality focused on Taxation and its evolution as a legally recognized *right* and *duty*.

An important element of analysis is the reports of the European Court of Human Rights¹⁰, which, due to its intense and fruitful judicial activity, show that there are many violations, including by states, which shows that interventions at national level are urgent for action and resolution, effective in order to prevent Human Rights violations.

But let's start by analyzing the great international moments *The Magna Carta* of 1215 is one of the most influential historical rights documents, and it implements the separation of church and political power and stems from the need to protect citizens from excessive taxes and to protect the right to property and equality by the law, aimed to safeguard personal freedom from abuse of power, and insists that “no free man could be detained, imprisoned, deprived of his property, exiled or otherwise Kingdom Law” Fernandes (2004) p. 25. Concerning the Bill of Rights, signed in England on 1689, declared a diversity of rights, imposing that “the collection of taxes without the granting of Parliament is illegal” by a Rule of Law.

The *United States Declaration of Independence* of July 4, 1776¹¹ contemplates in its genesis the principle of equality and the question of arbitrariness in 'imposing taxes without our consent', a fact of major relevance at the time and the importance attached to the payment of taxes as a need for self-sufficiency, but without abuses of political power. , followed by the *Bill of Rights*, signed in 1789, which reveals a social protection with hanging property, which in addition to being innovative at the time is a right that needed, and still needs, the most attention.

The *Declaration of the Rights of Man and Citizen*, Paris, France, in 1789, implements “a social revolution, calling for the abolition of feudal rights and privileges and the end of the regime of hereditary positions and class

⁷ In its preamble, the European Social Charter states that “the objective of the Council of Europe is to establish a closer union among its members in order to safeguard and promote the common heritage ideals and principles and to foster their economic and social progress. in particular by upholding and developing human rights and fundamental freedoms.” Miranda (1989) p. 253

⁸ Deputy Secretary General Council of Europe, Strasbourg, since 2012.

⁹ *The European Social Charter at a Glance*, Council of Europe (2017), p. 1

¹⁰ *European Court of Human Rights Annual Report* (2017), Conselho da Europa Publicações.

¹¹ Founding document of the United States of America proclaiming the separation of the original thirteen colonies of the United States and leading to the definitive separation of England, also known as the American Revolution. Although initially Independence was not the goal of the Americans, it is certain that the overarching goal was based on the need for the government to pay attention and resolve its claims, a fact that was aggravated by the war and generated such sentiment and need. This Declaration was first published in the newspapers, read to the multitudes, and later taken over by the American Congress.



distinctions, stating that all French became equal before the law.' Fernandes (2004) p. 41 is based on "*Freedom, Equality and Fraternity*" and therefore on the recognition of substantive - economic, social and cultural rights. Please note that Articles 14, 15 and 17 of the Declaration¹² Social Rights are evident, in particular fair taxation and the protection of the right to property, which has proved to be fundamental to the evolution of the self-sufficient Maximum State. Note that self-taxation Article 14 required that "all citizens have the right to verify, by themselves or their representatives, the need for public contribution, to consent freely, to observe employment, and to fix the breakdown, collection, collection and duration". This is because "the protection of fundamental rights has for centuries been a recurring object in the course of humanity, representing in some way the search for approximative models of justice and perfection, in harmony with ideological, political-economic and social assumptions. of each historical time, erecting in epicentral desiderate the preservation of the right of every man and every woman to full life." Poiars, CDHOA¹³ (2005) p. 21.

Internationally and globally, the United Nations in 1945¹⁴ drafted the document of "greater" recognition and protection of human rights, the *Universal Declaration of Human Rights*. So, "maintaining international peace and security, the Declaration aims at achieving international cooperation to solve economic, social, cultural (logo) humanitarian problems" Fernandes (2004) p. 53, among which we highlight the rights to work, fair wages, paid holidays, freedom of association and social security. But we must not forget that the evolution of economic spaces and the heterogeneity of tax systems have led to potentially serious situations such as avoidance, fraud, tax evasion and unfair tax competition, which has required particular attention from the United Nations, in partnership with other international organizations of a specific nature. It is true that every action of the United Nations lies in the effective protection, defense and legal promotion of human rights, but it is elementary to understand that the sustainability of states is of the utmost importance, which requires that the diagnosis and recognition of collective needs and individuals, the building of socially self-reliant states with respect for self-taxation and international law and their national jurisdictions are the path to unconditional respect for Human Rights.

At the regional level, the United Nations system has adopted "instruments, established bodies and established mechanisms for the protection of human rights, in some cases far more effective than mechanisms of universal scope." Fernandes (2004) p. 72. In this context, the 1948 Hague Congress created the Council of Europe and, consequently, the European Court of Human Rights.

In this context we have a fundamental and most important issue, which is the recognition of the need for tax collection in view of the need for a Minimum State to become a Social State, and therefore, the Maximum State.

It is therefore important to interpret and recognize taxes as the basis for sustainability, from which the dependence on social rights derives, both at the Council of Europe level, in a fundamental line with the European Union, while respecting international law unconditionally.

3. Portuguese Government Budget as a demonstrative element of the collective needs of the Nation

1. Public Finance

¹²Declaration of Human and Citizen's Rights (1789)

«Art.º 15.º - The company has the right to hold all public officials accountable for its management.

Art.º 17.º - Since property is an inviolable and sacred right, none of it can be deprived except when legally proven public necessity so requires and subject to fair and prior compensation.»

¹³ CDHOA = Ordem dos Advogados Association - Human Rights Commission (2005).

¹⁴ The *Universal Declaration of Human Rights* is a document of principles that embodies the inalienable rights of individuals. This Declaration was proclaimed by the United Nations General Assembly as a result of the severe atrocities committed by the Holocaust during World War II. (1939-1945).



Teixeira Ribeiro (1997) p. 28¹⁵ explains to us that “The State wants certain collective needs to be met; for this purpose it is proposed to produce the goods; but the production of goods entails expenses; the state therefore needs to obtain revenues to cover these expenses, that is, it needs money, means of financing”. Obviously, the State for obtaining public goods and services, which are intended to meet collective needs, must have financial means. Teixeira Ribeiro (1997) p. 31 and explains to us that government revenues are obtained through equity income, taxes, taxes and loans. It is because the State, especially since World War II, has broadened its intervention in society, Teixeira Ribeiro (1997) p. 31, through the redistribution of incomes and wealth to those with the lowest incomes, promoting economic stability, and ultimately by economic development so that *per capita* income can provide the population with a good standard of living.

2. Government Budget

The Constitution of the Portuguese Republic - CRP - imposes in its article 105 that the annual budget of the State has to make a breakdown of its revenues and expenses and this has a dual function, that is, Gomes Canotilho, JJ e Vital Moreira (2007), p. 1109¹⁶, at the financial level, the State establishes in this management instrument its financial and budgetary appropriations, but, as the people who elect their representatives, they are the ones who create the tax systems and authorize self-taxation on a representative basis every year.

3. The tax system as a source of financial income

Article 103° of the CRP sets out the three objectives of the national tax system, the satisfaction of the state's financial needs, the collection of taxes, and the distribution of income and after wealth. It is that meeting the state's financial needs is a strictly financial objective of the tax system, Gomes Canotilho, JJ e Vital Moreira (2007), p. 1088, It is important to remember that the other purpose is to make a fair distribution of income and wealth that Gomes Canotilho, JJ e Vital Moreira (2007), p. 1089, translated into the idea of social justice in order to achieve the intrinsic desiderate of the welfare state, even if income is generated outsider, Alberto Xavier (2007)¹⁷.

4. Effective tax collection - Does the tax system respect the principle of fair distribution of income and wealth?

The analysis of the principle of fair distribution of income and wealth that we will make next is based on the statistics made by the Tax and Customs Authority - AT.

1. Statistics of the Personal Income Tax

AT makes available on its portal ¹⁸ statistical data related to the Personal Income Tax - IRS of the year 2017 - and that were extracted from 5 180 463 periodic forms of incomes that generated a total income of € 11934 millions. Thus, in order to understand who actually pays taxes in Portugal to meet state expenses, and to know how the tax burden is divided among the national population, we draw up the table 1:

Table 1 – Effective taxation by income classed

¹⁵ RIBEIRO, José Joaquim Teixeira, *Lições de Finanças Públicas*, 5.ª Edição, Refundida e Atualizada (Reimpressão), Coimbra Editora, Coimbra, 1997.

¹⁶ GOMES CANOTILHO, JJ e VITAL MOREIRA, *CRP – Constituição da República Portuguesa – Anotada*, Vol. I, Coimbra Editora, Coimbra, 2007.

¹⁷ Alberto Xavier, com a colaboração de Clotilde Celorico Palma e Leonor Xavier, *Direito Tributário Internacional*, 2.ª Edição Atualizada, 2007, Almedina

¹⁸ Tax Authority_Portal of Finance

http://info.portaldasfinancas.gov.pt/pt/dgci/divulgacao/estatisticas/estatisticas_ir/Pages/Estatisticas_IRS.aspx – consultado em 2019-07-26



Annual Income Classes	Til 10.000€	From 10.000 € to 19.000 €	From 19.000 € to 40.000 €,	From 40.000 € to 100.000 €	Superior to 100.000 €
Number of Households - by Income Rank	43,48%	28,15%	20,07%	7,45%	0,85%
Personal Income Tax Paid - by Income Rank	2,55%	8,44%	27,55%	40,70%	20,75%
Effective Gross Tax Rate - by Income Rank	2,27%	4,75%	12,50%	21,02%	40,37%

To find out which types of income pay the most taxes, we draw up the table 2.

Table 2 – Breakdown of Income Types by Total Income Set

Income Types	Employment	Self Employment	Pensions	Other Incomes
Gross income by income category in % of total	63,43%	5,23%	27,60%	3,74%

2. Conclusions of the Statistic of the Personal Income Tax

We conclude that the ones who pay taxes in Portugal are the income from paid work and retirement pensions, that means, 91,03% of the tax payers, and that 8,3% of the taxpayers paid 61,39% of the total, 20,07% bore the burden of 12,50% and the others 64,63 just paid 7,02% of all Personal Income Taxes.

3. Statistics Data of Corporate Income Tax

AT makes available on its portal¹⁹ Statistical Data on Corporate Income Tax - IRC of 2017, based on 475 119 periodic tax forms that generated a total tax payable of Euro 4 493 million.

Note that only 50.7% of those taxpayers had positive fiscal results: Table 3.

Table 3 – Relationship between number of tax forms and tax result

Total Number of Forms - 475.119	With tax loss	With Fiscal result = Zero	With taxable profit
Percentage of the Number of Forms by Taxable Result	30,2%	19,1%	50,7%

In order to know the economic dimension of companies in Portugal and which companies, in view of their size, which effectively Corporation Income Taxes we draw up the Table 4.

Table 4 – Relation between the number of societies and the Corporation Income Taxes by the business volume.

Turnover / Year	Till 500 000€	500 000€ to 2,5 M€	2,5M€ to 25M€	Superior a 25M€
Number of the Forms by Types of the Business Volume	87,2%	9,5%	2,9%	0,4%
Corporation Income Tax Paid by Types of the Business Volume	11,8%	12,5%	22,2%	53,5%

4. Conclusion of the Corporation Income Tax statistic

Of these tables we can conclude that, between the 50,7% of the societies that have tax profits, only 3,1% (2,9% + 0,4%) of them contributed to 75,7% of all Corporation Income Tax.

¹⁹ Tax Authority_Portal of Finance

http://info.portaldasfinancas.gov.pt/pt/dgci/divulgacao/estatisticas/estatisticas_ir/Pages/Estatisticas_IRC.aspx – consultado em 2019-07-26



5. Tax Havens - Worldwide Problem in the Fair Distribution of Tax Burdens

The use of tax havens represents a significant loss of tax revenue for the state coffers, leading some to cease to contribute according to their real economic / financial capacities and others to do just as much as necessary to cover this escape. income / wealth / wealth for *offshores*.

To exemplify only and only this global storm, we use a report prepared by Richard Phillips and Matt Gardner, of the U.S. Public Interest Research Group Education Fund (U.S. PIRG Education Fund) and by Alexandria Robins and Michelle Surka of the Institute on Taxation and Economic Policy (ITEP), titled «Offshore Shell Games – 2017 - The Use of Offshore Tax Havens by Fortune 500 Companies»²⁰.

The analysis shows how it is estimated that there is an annual loss in the United States alone, and only in taxes to the federation, of about \$ 100 billion, which represents a tax burden for taxpayers alike, less investment and / or less utilities, so that for example the profits of these large *offshored* companies exceed \$ 2.6 trillion and that only four of these big companies, Apple, Pfizer, Microsoft and General Electric, represent a quarter of that total.

6. The ECHR and the freedom of States to create / shape tax systems - analysis based on case law

Taxes are an invasive means of each taxpayer's assets and so we are interested in whether the European Court of Human Rights (ECHR) has imposed limits on states in the taxation imposed on their citizens, or whether they have ample scope to implement their obligations within Taxation Policies.

The judgments of the European Court of Human Rights (ECHR) show us case law based on the recognition of the right of states to formulate and implement their Taxation Policies, and to that end they have a wide margin of appreciation, either in its creation or in its application, assuming that the ECtHR will always respect the evaluation of the legislation created in such matters, and has, on several occasions, understood that the relationship between the demands of the general interest of the people and the proceeds of tax revenue, as opposed to the requirements of protection of Individual Fundamental Rights of each of the concrete contributors must always be sustained in a fair balance between the general interest and the individual interest so that there is a proportional relationship between the legal means that are achieved to obtain the revenue and the desired objectives with their purpose²¹.

The ECHR's concern, in a way, to protect the community in its tax rights, was evident when it decided that states to protect themselves from the avoidance, evasion, tax fraud and unfair tax competition, whether practiced internally or practiced internationally, through the use of tax havens - *offshores* - may use the exchange of information between these²² and²³, by enacting legislation to prevent this abusive reduction in tax revenue

²⁰ RICHARD PHILLIPS e Matt Gardner, Alexandria Robins e Michelle Surka, Offshore Shell Games - The Use of Offshore Tax Havens by Fortune 500 Companies, 2017, U.S. Public Interest Research Group Education Fund (U.S. PIRG Education Fund) and Institute on Taxation and Economic Policy (ITEP) - USA

²¹ Please see, what all have state by the Judgement of ECHR P. PLAISIER B.V. AND OTHERS c. THE NETHERLANDS, nos.46184/16, 47789/16, 19958/17, 14 de Novembro de 2017 §71: «According to the Court's well-established case-law, an interference, including one resulting from a measure to secure payment of taxes, must strike a "fair balance" between the demands of the general interest of the community and the requirements of the protection of the individual's fundamental rights. The concern to achieve this balance is reflected in the structure of Article 1 as a whole, including the second paragraph: there must be a reasonable relationship of proportionality between the means employed and the aims pursued. Furthermore, in determining whether this requirement has been met, it is recognised that a Contracting State, not least when framing and implementing policies in the area of taxation, enjoys a wide margin of appreciation and the Court will respect the legislature's assessment in such matters unless it is devoid of reasonable foundation (see, among many other authorities, National & Provincial Building Society, the Leeds Permanent Building Society and the Yorkshire Building Society, cited above, §§ 80-82; and M.A. and 34 Others (dec.), cited above)»

²² Decided by the ECHR Judgement HUITSON c. THE UNITED KINGDOM, in 50131/12, 13-01-2015

²³ Decided by the ECHR Judgements G.S.B. c. SWITZERLAND, in 28601/11, 22/12/2015 e OTHYMIA INVESTMENTS BV c. THE NETHERLANDS, in 75292/10, 16-06-2015



collection, and even the ECHR made decisions in favor of retroactive tax legislation, including to deal with the crisis that plagued Europe at the beginning of this century²⁴.

CONCLUSIONS

It is clear that Human Rights, with regard to the obligation of each citizen with financial values to contribute to the community's expenses, have developed and growing, since the Magna Carta of 1215 until the ECHR

The generational evolution of Human Rights has imposed an evolution in the functions of the state, which went from a Minimum State to a Maximum State, with new tasks but which demand from the community, the people, a greater tax burden.

As the wellness collective overlaps the individual, it has to be through a fair balance, words of the ECHR, that a key point must be found between the collective right to collect taxes and the necessary collective expenses with the invasion of individual citizen heritage to pay their taxes.

We can conclude that the ECHR has always agreed with the tax systems set up by States to finance themselves, even if it entails taxes with retroactive effect in times of crisis, or to address possible tax evasion and evasion schemes, as well as the exchange of tax information for this purpose, imposing only and only on the part of the States the guarantee of the principle of the search for the material truth and its effective control by the Judicial Power, reason why even if each one of us surrenders to the State, through the payment of taxes most of its heritage, this will not be a real confiscation as long as, in the words of the ECHR, there is such a fair balance between collective need and individual protection of property.

REFERENCES

- ALBERTO XAVIER, com a colaboração de Clotilde Celorico Palma e Leonor Xavier, *Direito Tributário Internacional*, 2. Edição Atualizada, 2007, Almedina
- COUNCIL OF EUROPE, *The European Social Charter at a Glance*, 2017
- COUNCIL OF EUROPE, *European Court of Human Rights Annual Report*, 2017
- CUNHA, Paulo (Org.), *Direitos Humanos – Teorias e Práticas*, Almedina, Coimbra, 2003
- Comissão dos Direitos Humanos da Ordem dos Advogados, *Direitos do Homem – Dignidade e Justiça*, Principia, 2005
- FERNANDES, António, *Direitos Humanos e Cidadania Europeia – Fundamentos e Dimensões*, Almedina, Coimbra, 2004
- GOMES CANOTILHO, JJ e VITAL MOREIRA, *CRP – Constituição da República Portuguesa – Anotada*. Vol. I, Coimbra Editora, Coimbra, 2007
- MARQUES, Viriato, *Direitos Humanos e Revolução*, Colibri, Lisboa, 1991
- MIRANDA, Jorge, *Direitos do Homem – Principais Textos Internacionais*, Livraria Petrony, Lisboa, 1989
- MOURGEON, Jacques, *Os Direitos do Homem*, Publicações Europa-América, Mira-Sintra, 1981
- OLIVEIRA, Samuel, *A Teoria Geracional dos Direitos do Homem*. Disponível em: <http://www.theoria.com.br/edicao0310/a_teorias_geracional_dos_direitos_do_homem.pdf>.
- PAINE, Thomas, *Direitos do Homem*, Publicações Europa-América, Mira-Sintra, 1998
- RICHARD PHILLIPS e Matt Gardner, Alexandria Robins e Michelle Surka, *Offshore Shell Games - The Use of Offshore Tax Havens by Fortune 500 Companies*, 2017, U.S. Public Interest Research Group Education Fund (U.S. PIRG Education Fund) e Institute on Taxation and Economic Policy (ITEP) - USA

²⁴ Appreciated and decided by the ECHR in his Judgement P. PLAISIER B.V. AND OTHERS c. THE NETHERLANDS, in 46184/16, 47789/16, 19958/17, 14 November 2017



TEIXEIRA RIBEIRO e José Joaquim, *Lições de Finanças Públicas*, 5.^a Edição, Refundida e Atualizada (Reimpressão), Coimbra Editora, Coimbra, 1997
XAVIER, A., et al, *Direito Tributário Internacional*, Editora Almedina, 2.^a Edição Atualizada, 2007



Human and fundamental rights, diversity and integration within education system in EU: Paradigma(s)

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Abstract

The education in nowadays European legal structure and strategic political context/action(s), as well as, within the UN System advocates the unquestionable respect for differences, quality education and equal opportunities for “all”. The social, economic, ethnic, cultural or religion characteristics of the educational structures, for students and teacher/professors, should be considered as a “natural wealth”. It’s important to state that education system should recognize the differences and develop a team work to promote the diversity in the pursuit of the guaranty of the equality in access, in the study stay as in the results, ensuring the teaching, the learning and the human strategies and resources conducting to the future society based on the promotion and defense of Human Rights in general, and in the European Fundamental Rights, in particularly.

Keywords: Rights, transdisciplinary, integration policies, education for diversity.

Introduction

Although all legal and political strategies, this context is complex, as there are serious problems the European Union is facing concerning the education system, as there is a serious conflictual conjuncture due the most different reasons: the pedagogical strategies, the non-updated programs, the absence or fragile education for the diversity. There is legal (juridical and judicial) consequences but the individual and group effects are serious and should be object of an urgent intervention. There are instruments to implement the diversity education and specially the effective integration, however this is more “virtual” than real. Considering the actual social complexity but the important education instruments and strategies, mostly patented in the policies, this paper aims expose the existing contexts opposed to the laws, policies and education for the diversity and to the real inclusion. More than a single study, this research aims to develop a map of the reality and the guidelines to implement the action.

This paper presents a set of theoretical reflections in the disciplinary interface between legal and education sciences, school administration and management, with the aim of understand the real inclusion characteristics in a balance with the inclusion policies and the need(s) of an education for Human Rights, especially for diversity. The transdisciplinary is a pedagogic and social education perfect approach using the Human Rights binomial – teaching and learning – supported by the inclusion laws according to the realistic needs for an effective successful society construction.

Method

The qualitative research developed, based on the historical, legal and political science perspectives, since the first moment had the main objective to identify the main problems and Human Rights, as fundamental rights, violation; the legal context and the law enforcement and the consequence judicial position. The research method allows us to develop the perspective of the politics and political actions, within the sustainability based on the law and democratic values, toward the protection of all Human beings.



Findings

Researching, thinking and discussing Human Rights, from the West to the East, in the present world, is fundamental, reveals an unquestionable necessity, but a "dangerous" context due to all historical charge, such as concepts and understandings without scientific interpretation, as well as, effective practice. It is difficult to identify a historical period in which human rights have been so mentioned, as it is today. However, there are dangerous actions with the most serious human consequences; dissemination of information without the necessary contextualization, supported by legal facts and procedures, such as an explanation adapted to the target public (individual or groups / societies) in their different realities. Thus, Human Rights are part of the Agendas of democratic states, it is a priority of the Media, in the social discussions (official and unofficial) in the States, regional groups / Organizations, objectives and actions of International Organizations (Governmental and Non-Governmental). And in the speech of the terrorist groups as a flag to achieve the "recruitment" of their followers, in the name of values completely adulterated and with the most burdensome and violent goals. This problem affects non-democratic, mostly authoritarian states, many of which include human rights and values in their legislation, in their rhetoric, despite their most reprehensible violation of human rights. It is the discourse, in the most different forms and means that generates a disparate perlocution of its content.

Considering the need to define human rights, it can be affirmed that they are those that have been legally defined and recognized by the United Nations since the Human Rights Universal Declaration of December 10, 1948 - for all human beings in the world. world, without exception - as well as all United Nations international legal laws / documents recognized and adopted by UN members. With regard to fundamental rights, it can be defined as all those that are legally defined and recognized by each state or regional organization (such as the European Union).

In fact, International Relations and Policies, on a democratic basis, are developed under the Human Rights values that shape the discourses, as well as actions that promote behaviors and reactions. It is obvious that throughout the world, it can be assumed that no more laws will be needed, but rather their effective implementation, aiming at an effective experience within the highest level of Rights, adopted to protect all human beings. In contrast, there are many (too many) states / governments that need to adopt human rights in their legislation, democratizing their policies to protect their citizens from all forms of violence, rape and suffering in the most diverse dimensions.

However, there are many democratic states that protect and promote human rights, but there is always the challenge of renewing social construction through reflection and realignment of political, social, economic and cultural criteria and actions to implement democratization through a serious and realistic, avoiding the problems diagnosed, preventing potential problems, identifying all the "actors" in society and the "political scenario", acting to proceed in a qualified democracy of, and for, all citizens. This is a realistic and scientific view advocated by Laurence Whithead in May in Bucharest, Romania, based on the idea that the world-wide norm must end democracy by the rule of law, a system of social justice under a structure and political actions. Thus, the vulnerability of the protection, promotion and implementation of the human rights system is in the process of democratization, often fragile and complex, but also the quality of democracy. Thus, if the level is low, surely the political regime will not be able to achieve the values and rights for an active and protected citizenship.

One of the important elements that should be highlighted in this article, this research identified Geopolitics as an actor in the field of International Relations, contributing positively and negatively to democracy by policies - implemented - debated, protected and violated. Let us briefly consider two complementary perspectives.



1. "Physical realities, which go beyond national and international policies, are often devalued, whether in writing about history and contemporary accounts in the business world. Geographically it is evidently a fundamental part of the "whys" just like the "whys". It may be a determining factor, but it is certainly the most underrated."¹

2. "We live in a time when democratic nations are portrayed in the context of geopolitics, when democracy is itself a context. The latter phenomenon was documented in the House of Freedom, in which it was recorded as freedom in the declining world over nine linear years. In the context of geopolitics, the elevation of tectonic plates has generated a systematic reorganization of power, but the rumors are audible (...). Today, as always, democracy is a fragile flower. It requires permanent support (...) In the absence of all efforts, the jungle and the beasts will come, sooner or later, to return and reclaim their land".²

Political scientists have no doubts about the importance of Geopolitics, however, there are several decisions about International Relations and the promotion of human rights policies that do not, or would rather ignore, the potential of this inevitable element. Thus, it is simple to explain some of the success and failure of political, cultural, economic and social measures at an international level. For example, in order to protect as many human beings as possible, especially those in refugee situations, particularly in Europe, could have a different "treatment" if the geopolitical context were taken into account, including democratic agreements, strategies international organizations, humanitarian issues, solidarity, protection and, in particular, the legal implementation of human rights by the United Nations, which could prevent millions of deaths and human suffering in all dimensions.

Another illustration is the current fight against terrorism. There are currently Diplomacy and International Relations experts who present the "Geopolitics of Terror (ism)" with a renewed perspective and proposed action to prevent the proliferation of hatred, but the spread of the ideology of peace by the concerted action and behavior of politicians, governments, international organizations and citizens from all over the world. It is not a simple question or an immediate action, but it can be considered by policy makers.

Keeping the focus on the international context and system of human rights, there is an essential issue that is to integrate democratic governments and organizations as they are in societies: human rights education. However, it is important, regardless, of interpretation, that is included in the difficulties of the specificities for its implementation. This is not a new issue but for international law and relations, especially after the landmark 11 September 2001 (Terrorist Attacks on the World Trade Center in New York in the United States of America) with a new conceptualization of Terrorism and protection systems. Human Rights, education has to be, progressively and so far, a matter on the political agenda: by International Organizations (Governmental, such as the UN, Regionals, such as the European Union), Democratic States / Governments, as well as Associations and International Movements whose purpose is to promote and protect Human Rights.

There is no doubt that the changing paradigm of Human Rights and the need for legal interpretation and effective action, by violence, by violation of international and national laws, known or through manipulative illusory actions, is certain that there are perfectly identified needs. Thus we have two important views:

- the need to implement policies duly approved and legally and judicially recognized by (mostly democratic) governments that aim to protect and promote fundamental and human rights. In this case, the need is for the

¹ MARSHALL, Tim. (2016) Prisoners of Geography. London: Elliot & Thomson. P. x

² "Is the democracy in decline? The Weight of Geopolitics": Article by Robert Kagan in <https://www.brookings.edu/articles/is-democracy-in-decline-the-weight-of-geopolitics/> accessed June 4, 2017.



development of the “force” of policies and laws, as well as citizenship that must denounce the violations and violence that in many (too many) moments are hidden (deliberately or not).

- the needs of millions of human beings who suffer the most distinct violence and violation of international law, including torture and murder. Some are legally protected, but there are no mechanisms to defend or promote the possibility of termination, or even the request for protection. Others live in states where democracy is not a reality, so work is hard at developing work and action to achieve political power, so education comes in two ways: political and law change (difficult, complex and utopian mission, at times) as well as society's knowledge of its (Human and Fundamental) Rights and strategies for its own protection and to denounce all problems.

The world faces many serious and worrying problems, living not only within the most negative contexts, such as wars, authoritarian regimes and dictatorships, but also the harshest human lives. The declared intervention needs democratizing action, under the highest human values, in order to protect as many human beings as possible, solving the most serious problems. It is an effective state of the art in today's world society that leaves open the difficulty and at the same time the need to act. This must be a mission for and for everyone, but unfortunately there are thousands who do not have information, who receive no or very fragile education to be protectors, defenders and activists of human rights. There is no special movement, but active citizenship and responsible action / mission. This is not an idealistic view, but the implementation of international law. There is an important role for international relations developed in the most diverse contexts: special organizations, states and movements could be concerted to support the most important values that support (or should support) relationships. However, history shows that humans have an extraordinary ability to completely change the best and worst scenarios by the most distinguished “actors” for their own protection. In fact, despite all the difficulties and obstacles, humanity is always shown that there is a true and legitimate will, with definite strategies, in a necessary union of important entrepreneurs, which needs time (short or long) but that proves possible by reaching different partial objectives but positive results. Action is the key to change.

At present it is obvious that we experience two different worlds where there is life: the real and the virtual. Both are spaces to protect and / or to attack humans. There are important connections and powerful instruments. When it comes to the virtual world, humanity has a powerful tool to reach millions in seconds. Undoubtedly, it cannot be said that all humanity attains it, but each one has its unquestionable importance. Thus, it is known that radical groups such as Daesh find in the powerful virtual social networks the means to recruit millions with the darkest goals, targeting violence and terrorist actions. Thus, Human Rights Education could, in this “space”, be the instrument to reach as many people as possible, such as groups and governments.

Much work has been done in this regard, but there is an emerging need to implement effective education work tailored to the needs of each area of the world, each political regime, each social group, level of knowledge, cultural, economic and religious contexts, in the most distinctive features aimed at the protection and promotion of Human Rights, such as generating effective instruments to provide reporting of violations. The problem of investment in education (by governments and / or societies can be analyzed by Ignacio Ramonet who states that “we are witnessing a permanent tension between absolute sovereignty of consumption and citizens' desire for democratic guarantee”).³

In this context, there are different actors who have the responsibility to develop human rights education - International Organizations and States - political and political procedures; societal actions (in all dimensions) - individual action as social groups; pressure groups (identified or unknown) and the Media. The latter, in all communicational media, is one of the most important and powerful tools for building public opinion capable of

³ RAMONET, Ignacio. (1997) Geopolítica do caos. Rio de Janeiro: Editora Vozes. P. 139



developing social education. However, there are two views / action based on manipulation. There are the manipulated means and the manipulative means of your audience. This is a dangerous problem with serious and dangerous consequences for the violation of human rights. Despite all the influence groups that are in the genesis of the action of some media through images, discourse texts, diffusion of ideas and ideologies, there is a social education that promotes different "positions" tampered with by manipulation.

The control and formatting of information by the media has positive and negative consequences. Indeed, there are means that develop their work aimed at the proliferation of values and rights within the Laws, although all national, regional and / or international laws define and control their action. It can be said that there is too much manipulation that supports media action with consequences on human behavior that requires diagnosis, legal control and corrective actions, legal complaints and consequent punishment, and it is important that all that is incorrect and all legal actions and its consequences are, of course, published to the public knowledge. It is a measure of educational pedagogy for the perception of rights. There are influences and interests that hinder all this action of identification and denunciation; manipulation in the most diverse dimensions, but it is essential that there is a permanent state of "alert" to the details that can prevent any and all types of tampering. In many cases, it can be argued that this is not about the need for more legal support, but the implementation of the existing legal and judicial means for control and correction.

The United Nations has promoted education as a human rights priority, especially through UNESCO's actions. The International Labor Organization affirms Education as a priority in the international labor context, where there is still so much to change, implement and develop. The European Union has a priority in education, developing legislative procedures to protect and promote the human rights adopted as fundamental to the Organization, embedded in legal documents, especially in the Charter of Fundamental Rights of the European Union. The Arab League has adopted all United Nations international human rights legal documents, such as the Universal Declaration, formally incorporating them into the legal system of the Arab states. Generally speaking it can be said that the international legal system recognizes human rights with education as its mission. It is reiterated that there are states that have adopted and recognized these international instruments, in spite of the violation and violence, mostly, with no expected consequences due to their non-legal identification and, consequently, legal action, or even by ignorance. It turns out that education is not developed and allow serious violations without judgment or condemnation. The results are always the most negative for the victims and for human behavior, supported by false or manipulated information, generating discrimination, xenophobia, racism, violence and all human rights violations. The consequences are the most serious, such as human suffering, death and all dangerously misunderstood actions in the political, social, cultural and / or religious fields.

Consequently, the research emphasizes another important detail for this relevant context aiming at reinforcing the need for the development of a Human Rights Education: discourse and rhetoric. It is an unquestionable strategy, especially for communicational action, in the most diverse areas, where all the details are important, but which can generate ideas and behaviors based on adulterated information that result in attitudes involved in danger to human life. While on the one hand there are "innocent" (unplanned) rhetoric / discourse on formatting, but with the most serious and negative consequences, it can be said that most serious problems, discussions, misconceptions and formatted opinions, opposition behaviors, citizens, states and in a dimension of International Relations. Supported by manipulation-controlled actions or messages without explicit meaning to recipients, the results can and often are disastrous to us. In theory these are simple questions, but in practice it is important to identify all the details, construction, undeclared information, subliminal messages and disparate "images" generated from reality. After all, subliminal messages, ideas, and ideologies are more important than those that can be evidently visible. In the field of the Human Rights system this context of differentiated plans is so common that there are many studies and actions in favor of building the understanding of information / communication. Thus, the development of human rights education is more than a necessity or strategy, but an



emergent and urgent intervention directed at the important results for the protection of human beings. There is a lot of work to be done in this area regardless of all the complexity, with education tailored to the real needs to reach the largest number of people with effective understanding, interpretation and action in line with realities.

Conclusions

The research developed, which findings are presented in this article, achieve the main conclusions that validate the need to question and identify the theories and practices regarding human rights education within international policies. “Sustainable” political, cultural and social citizenship lives on the rhetoric that results in the facts that need educational intervention, social pedagogy and democratic politics.

To conclude, we can illustrate the ideas presented by analyzing some case studies based on the complex areas: culture, religion, refugees and terrorism. There are ideologies and ideas enveloped in latent danger by the way they are spread through the most diverse communication channels, such as within social relations, generating violence, discrimination, racism and xenophobia, such as the political positions and actions of governments or, for example, by the European Union.

The so-called refugee crisis in the world, and in Europe in particular, could have been treated differently, especially since the Arab Spring, by the preventive measures that should have been taken in the political, social and cultural spheres, can avoid massive uncontrolled human movement, with the most dramatic death statistics on the run. There is an undeniable need for urgent and emerging response through concerted action adapted to the real and dramatic situation of refugees, the European political power - the European Union and each state - stopping the human suffering of many thousands of people who are “lost” on the way. of the struggle for survival. It is humanly a catastrophe that has to be fought under penalty of having and being (in the democratic responsibility that assists all) colluding with such dimension of suffering and violation of Human Rights.

Despite all the policies, laws, legal and judicial regulations and consequent actions, the violation of values and rights is at the root of the serious problem associated: Public Opinion. Refugees are a topic everyone talks about but there is a huge lack of information and training. Education is a requirement in this field. And while there is freedom and the right to adopt positioning, in fact there are numerous important issues that affect common sense: those with legal information; those who fail to interpret due to international policies and politically conditioned behavior; those unaware of the escape-promoting origin contexts of origin for survival; those who do not have access to the actual numbers of deaths that occur in the seas, deserts, on the arduous road to “safe” countries; and one of the most serious issues, the subhuman conditions under which thousands of human beings live in refugee camps where solidarity is manifestly insufficient and political action falls short of their responsibilities.

Scientific research shows that human rights education is the most important base of support / “key” for democratic development in the most diverse social contexts and realities, promoting the necessary change through a bold and complex process, but possible. for the sake of humanity.

References

- Cunha, P. (2003). *Direitos Humanos: Teorias e Práticas*. Coimbra: Almedina.
- Fukuyama, F. (1992) *O fim da história e o último homem*. Lisboa: Gradiva.
- Kagan, R. (2017) “Is the democracy in decline? The Weight og Geopolitics”: article in <https://www.brookings.edu/articles/is-democracy-in-decline-the-weight-of-geopolitics/> accessed June 4, 2018.
- Kornelsen, L. (2014) *Stories of Transformation: Memories of a Global Citizenship Practicum*. Canadá: ICIE.
- Maalouf, A. (2009) *Identidades Asesinas*. Madrid: Alianza Editorial.
- Maquiavel, N. (2015) *O Príncipe*. Lisboa: Bertrand Editora.



- Marshall, T. (2016) Prisoners of Geography. London: Elliot & Thomson.
- Moury, C. (2016) A democracia na Europa. Lisboa: Fundação Francisco Manuel dos Santos.
- Radu, M. & Végh, Z. (2017) Frontiers of Democracy: Embebing Democratic Values in Central and Eastern Europe. Hungary: Central European University.
- Ramonet, I. (1997) Geopolítica do caos. Rio de Janeiro: Editora Vozes.
- Sartori, G. (2003) La sociedad multiétnica. Madrid: Taurus.
- SCOPE2017 <http://www.scienceofpolitics.eu> accessed June 4, 2017.
- SCOPE2017, Whitehead <http://www.scienceofpolitics.eu/scope-2017/keynote-Whitehead> accessed June 4, 2017.



Informal learning in the educational process of IT professionals

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Abstract

One of the necessary professional competencies of IT professionals is the ability to permanent professional development that fits into the concept of lifelong learning. Informal learning becomes an important element of training in the traditional educational process of IT professionals. According to a students' poll, the most preferred forms of informal learning are: performance of specific activities and educational interaction in small groups. In the frameworks of the traditional educational process the students' educational activities have elements of personalization. Educational activities are personalized in sources of educational information, in forms and methods of training and self-directed learning outside a classroom, in the use of professional knowledge, including available via Internet. Activities of teachers change due to: continuous development of the subject areas and new forms of educational activities of students, emergence of new sources of educational information, formation of electronic information-educational environment (EIEE) of educational institutions and personal EIEE of students.

Keywords: lifelong learning, formal learning, informal learning, IT-professionals

Introduction

Organization of educational process of modern IT-specialists requires modern methods and forms of teaching and learning. Training of such specialists has following features:

- Professional activities of modern IT-specialists require constant professional adaptation to the development of information technologies.
- Forms and methods of training are developed according changes in informational educational environment.
- One of the necessary professional competencies of IT professionals is the ability for a permanent professional development that fits into the concept of lifelong learning.

Working definition of lifelong learning according to Memorandum on Lifelong Learning (2000) is: "lifelong learning must become the guiding principle for provision and participation across the full continuum of learning contexts."

According Oxford Handbook of Lifelong Learning (London, 2011), "people will need continually to enhance their knowledge and skills, in order to address immediate problems and to participate in a process of continuous vocational and professional development".

Lifelong learning includes formal, nonformal, and informal education and training.

In a World Bank Report (Lifelong Learning, 2003, p.3) formal education and training are defined as the including "structured programs that are recognized by the formal education system and lead to approved certificates". Nonformal education and training are defined as the including "structured programs that are not formally recognized by the national system". Informal education and training are defined as the including "unstructured learning, which can take place almost anywhere, including home, community or workplace. It includes unstructured on-the-job training".

The paper discusses elements of informal learning in the traditional educational process of students of bachelor programs 09.03.02 Information systems and technologies and 09.03.03 Applied Informatics. According Educational standards of higher education in Russian Federation (Portal, 2017) of this bachelor programs, graduates should be capable to "manage their time, build and implement a self-development trajectory based on the principles of lifelong education" (UK-6).



Method

We consider comparison between formal and informal learning in a number of important aspects. In order to determine what elements of the informal education are used by students in traditional educational process, we made a survey of students of bachelor program 09.03.02 Information systems and technologies and of bachelor program 09.03.03 Applied Informatics of Kazan Federal University. In this survey took part 96 students of 3rd and 4th years of study. From this survey we have considered such aspects, as sources of knowledge, forms of learning, personalization. As an example of teacher activity we discuss our experience on practical classes (Golitsyna, 2017a).

Discussion

Table 1 shows a comparison between formal and informal learning in the next important aspects: source of knowledge, personalization, monitoring and evaluation of results, activity of teachers, forms of teaching and teaching/ learning methods (Zakhar'yev, 2007).

Table 1. Comparison between formal and informal learning

	Formal learning	Informal learning
Source of knowledge	Teacher	Teachers guide to sources of knowledge. Creativity, practice, analysis and synthesis of knowledge are in a center of learning
Personalization	All students are engaged in a same educational activity	Students have individual training plans
Monitoring and evaluation of results	Curricula determine monitoring and evaluation of training results	The training plan depends on an individual students' abilities and preferences
Forms of learning	Traditional classes in academic groups	Training through specific activities
Teaching/ learning methods	Educational activities are mainly reproductive	Group training, people learning from each other
Activity of teachers	Teachers periodically improve their skills	Teachers should be involved in the process of lifelong learning

Sources of knowledge. According to students' poll, they actively use all available sources of educational information. Figure 1 shows students' answers to the question: "Where do you find educational content to prepare for classes?"

As we can see from the answers, students use summary of lectures or seminars and educational content recommended by a teacher as often as electronic educational resources: e-guides, electronic reference books, specialized forums. They use often Wikipedia; as noted by Selwyn & Gorard (2016), Wikipedia mainly plays an introductory and /or clarificatory role in students' information gathering and research. It should be noted that only 7% of students tend to search for literature in the university library.

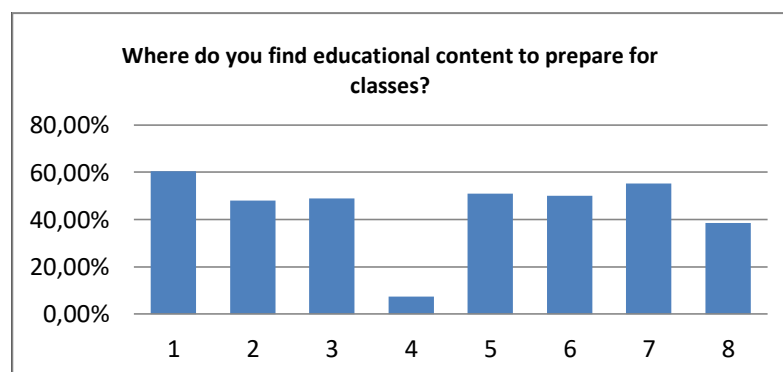


Figure 1. Students' answers to the question: "Where do you find educational content to prepare for classes?"

Answer options:

1. I use summary of lectures or seminars
2. I use an educational content recommended by a teacher
3. I discuss study questions with other students
4. I use resources of the university library
5. I read e-guides
6. I use electronic directories
7. I read articles on Wikipedia
8. I use specialized forums

Personalization. Personalization of the educational process is one of the world trends in the development of modern higher education (Burnyashov, 2017). While studying in academic groups according to a general curriculum, most of the students create personal EIEE (Golitsyna, 2017a). Application of web-resources and use of mobile devices facilitates infiltration of flexible learning technologies into a traditional educational process (Golitsyna, 2017b). In conditions of flexible learning, the teacher must assume the role of a guide and encourage students to autonomy and flexibility within the educational trajectory (Agudelo, Salinas, 2015). It creates additional opportunities for organization of independent work of students and provides personalization of training (Eminov, Golitsyna, 2017).

Students personalize educational process both in sources of educational information and in forms and methods of training and self-directed learning. According to a students' poll, 92% of students are actively in a self-directed learning, 70% independently use specialized books and textbooks for learning, 47% of respondents use forums for programming. Besides, students independently use educational online resources (27%) and professional forums (11.5%) for self-teaching, 21% of students attended full-time educational courses.

18% of respondents use social networks for self-teaching (Vkontakte, Instagram, Pinterest, pikabu); at this connection Çelebi et al. (2018) notice, that the use of the social network-based applications significantly improve students' academic achievement and "academicians should support students who are interested in new technology and communication applications to get updated information as a part of lifelong learning".

Besides students use following Internet resources for self-teaching: Cleverics (<https://cleverics.ru/>), Codecademy (<https://www.codecademy.com/>), Coursera (<https://www.coursera.org/>), CyberForum.ru (<http://www.cyberforum.ru/>), habr (<https://habr.com/>), htmlacademy (<https://htmlacademy.ru/>), INTUIT (<http://www.intuit.ru/>), Lingualeo (<http://lingualeo.com/ru/>), Medium (<https://medium.com/>), Netology (<https://netology.ru/>), PyDev (<http://www.pydev.org/>), Stack Overflow (<https://stackoverflow.com/>),



STARTANDROID (<https://startandroid.ru/ru/>), SOLOLEARN (<https://www.sololearn.com/>), Stepik (<https://welcome.stepik.org/ru/>), TutorOnline (<https://www.tutoronline.ru/>), Udacity (www.udacity.com), w3schools.com (<https://www.w3schools.com/>), Yandex Academy (<https://academy.yandex.ru/>).

Forms of learning. The diagram in Figure 2 shows students' answers to the question: “What forms of training do you prefer?” As we can see on a diagram, majority of the students prefer project work in a small group (72 %) and independent development of software applications (44%), while only 39% prefer traditional lectures and classroom workshops.

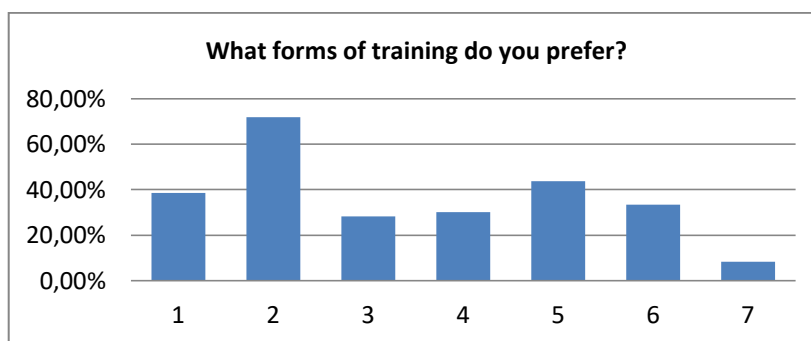


Figure 2. Students' answers to the question: “What forms of training do you prefer?”

Answer options:

1. Traditional lectures and classroom workshops
2. Project work in a small group
3. Independent work outside the classroom
4. Implementation of individual exercises
5. Independent development of software applications
6. Implementation of creative exercises
7. Other

Therefore, in the framework of traditional educational process students prefer forms of training relevant for an informal learning, such as implementation of specific learning activities and educational interaction in small groups.

The answers to the question “How do you solve problem tasks and creative exercises?” show, that students solve problem tasks and creative exercises independently (67%) or with the help of classmates (70%), but more often they use Internet resources (85%). They also use in that cases electronic textbooks (50%) and specialized forums (37%), and only 4% of students are trying to find literature in the university library.

Teachers' activities. Changes of teachers' activities occur due to the following factors (Golitsyna, 2017a):

- subject area of education is developing continuously;
- new sources of educational information are emerging;
- new forms of students educational activities are developing.

To ensure proper quality of modern professional training, teachers have to constantly update educational content. In order to do this, they use various approaches, such as:

- regular updates of study-books and manuals;
- development of electronic educational resources based on specialized systems and web-resources;



- use of professional software products, including those available on the Internet;
- development of own software-environments for teaching, including these based on mobile technologies.

On our practical classes were used following forms of educational activity:

- Guidelines were prepared, brief theoretical information on topics was given and hands-on assignments and exercises for solving problems for each practice session were handed to the students.
- Students were free to choose software environment and tools for problem solving.
- Control of the results was conducted through personal talks with students about themes of practical classes.

This form of training and teaching of classes allowed to:

- Choose and use the most methodically reasonable educational resources for studying each topic of a discipline.
 - Arrange personal conversation with every student, while responsibility of the students was to be prepared and answer all the questions on a topic of a class.
 - Let students freely choose methods and means of problem solving and managing of practical tasks.
- As a result students' independent practical work was personified.

Results, Conclusions and Recommendations

We can conclude that traditional educational process of IT specialists includes elements of informal learning in the following aspects (Golitsyna, 2018b):

Source of knowledge. Teachers' role as a main source of knowledge decreases, students actively use all available sources of educational information. At the same time role of traditional informational infrastructure of educational institution is significantly reduced, in particular, we see that our students rarely use the university library.

Personalization. In addition to the fact that all university students belong to official academical classes, they actively form personally-oriented EIEE. They introduce elements of personalization both into educational information sources and forms and methods of education and self-directed learning.

Teaching - learning methods. Being in a framework of traditional educational process, students clearly prefer forms of study that are more common for informal learning: implementation of specific activities and educational interaction in small groups.

Activities of teachers are also changing. That happens due to the four following factors: continuous development of the subject area of education, appearance of new sources of educational content, development of new forms of educational activities and formation of EIEE.

As a result we can recommend implementation of following activities for teachers:

- participation in continuous development of EIEE according modern educational standards;
- continuous update of the educational content of disciplines, that should include the interdisciplinary educational content (Eminov et al., 2018);
- update of the teaching-learning methods according to condition of professional environment of IT-specialists.

References

- Agudelo O. L., Salinas J. (2015) Flexible Learning Itineraries Based on Conceptual Maps // *New approaches in educational research*. 4(2), 70-76.
- Burnyashov B.A (2017) [Personalization as the world trend of electronic training in higher education institution] // *Sovremennyye problemy nauki i obrazovaniya [Modern problems of science and education]*,1. (In Russ., abstract in Eng.)



- Çelebi N., Selçuk G., Peker H. S. (2018) A Study on the Use of Social Networks by Turkish and German University Students in the Globalization Process // *Journal of Education and Training Studies*, 6(11a) , Special Issue, 88-97.
- Eminov F., Golitsyna I. (2017). Issues of IT-professionals training in traditional educational process // *Proceedings of the 14th International Conference on Cognition and Exploratory Learning in the Digital Age (CELDA 2017)*, 273-276.
- Eminov F. I., Golitsyna I. N., Eminov B. F. (2018) Enterprise infocommunication infrastructure in training of IT-professionals // International Conference Information Technologies in Business and Industry 2018. IOP Conf. Series: *Journal of Physics: Conf. Series 1015 (2018) 042014*, 5 p.
- Golitsyna, I. (2017a). Educational process in electronic information-educational environment // *Procedia - Social and Behavioral Sciences*, 37, 939-944.
- Golitsyna, I.N. (2017b). [Flexible learning in a traditional educational process] // *Vysshee obrazovanie v Rossii [Higher Education in Russia]*. 4 (208), 113-117. (In Russ., abstract in Eng.).
- Golitsyna I.N. (2018a) [Informal learning as a part of modern educational process] // *Mezhdunarodnyy elektronnyy zhurnal "Obrazovatel'nyye tekhnologii i obshchestvo [Educational Technology & Society]"*, 21(4), 344-350. (In Russ., abstract in Eng.).
- Golitsyna I. N. (2018b) Informal learning in the modern educational process // *ICSS XVI 2018*, 16th International Conference on Social Sciences, Paris, 23-24 November 2018. *Conference Proceedings. Abstract Book*. - EUSER, European Center for Science Education and Research, 128.
- Lifelong Learning (2003) Lifelong Learning in the Global Knowledge Economy: Challenges for Developing Countries.// *A World Bank Report*. The World Bank, Washington, D.C.
- London M. (2011). The Oxford Handbook of Lifelong Learning // *Edited by Manuel London*. 2011.
- Memorandum (2000). European Communities: A Memorandum on Lifelong Learning, issued in 2000. <https://uil.unesco.org/document/european-communities-memorandum-lifelong-learning-issued-2000>
- Portal (2017). Portal Federal'nykh gosudarstvennykh obrazovatel'nykh standartov [Portal of Federal State Educational Standards]. (In Russ.) .<http://fgosvo.ru/fgosvo/151/150/24/9>
- Selwyn, N., & Gorard, S. (2016). Students' use of Wikipedia as an academic resource — Patterns of use and perceptions of usefulness // *The Internet and Higher Education*, 28, 28-34.
- Zakhar'yev V.V. (2007) [Innovative challenges for the education system in a knowledge economy] // *Innovatsii [Innovations]*, 4 (102), 81-85. (In Russ., abstract in Eng.).

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Teacher Candidates' Views on Effectiveness, Managerial Effectiveness and Mobbing

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Abstract

This study aims to determine the opinions of the 3rd and 4th year university students at school of education about the meaning of the concepts of effectiveness, managerial effectiveness and mobbing, and whether the students were exposed to mobbing by the instructors during their undergraduate education. Qualitative method was used in the research. The study group consists of 50 teacher candidates (37 females and 13 males) in Çanakkale Onsekiz Mart University, Faculty of Education in the academic year 2018-2019. In the study, semi-structured interview form was used as data collection tool. The content analysis technique was applied in the analysis of the interview questions. The coding results for the definitions of effectiveness, managerial effectiveness and mobbing, their faculty members' status of applying to mobbing and in which ways, and also the teacher candidates' mobbing experiences were presented with frequency distribution.

Keywords: Effectiveness, managerial effectiveness, mobbing, teacher candidates

Introduction

Human beings leaving behind the 20th century expect huge changes in the 21st century. Education is an important phenomenon since well-educated people are advantageous to catch up with the change and sustain it. At this point, teachers affect two important factors which are well-educated society and education. In order to train qualified teachers, it is required to have school of education with dynamic organizational culture. School of education is one of the organizational branches at university whose tasks are to conduct scientific research, teach and give social service. Because of its role that school of education is the institution training future teachers, they must be in base of a sustainable improvement. This improvement enables faculty of education to be effective provided that to have successful administrators ensuring managerial effectiveness, and to have a faculty involving in decision making process.

Effectiveness is closely related to if an organization is able to reach its organizational purposes (Karshi, 2004). If an action serves for its desired aim, then it can be said that the organization works effectively (Bernard, 1966). Effective organizations are also required to be managed efficiently. Therefore, the concept of managerial effectiveness based on administrator competence. Managerial effectiveness is a concept refers to the consequence of administrator's behaviors and what they accomplished (Karatepe, 2005, Cammock, Niakant & Dakin, 1995). Managerial effectiveness can happen through different methods in various organizations. Since educational organizations deal with people-related issues, it brings several problems to the table. One of the biggest issues is mobbing.

In the related literature, it is difficult to find a single expression referring to the concept of 'mobbing'. It is generally used as 'mobbing' in Scandinavian countries such as Sweden, Norway and Finland as well as 'bullying' word is used commonly in England, Canada and the U.S. (Einarsen, 2000). In Turkey, to express the 'mobbing' concept there are several phrases used such as "psychological lynch in workplace", "psychological abuse in workplace", "psychological terror in workplace", "intimidation (yıldıрма)", "emotional attack in workplace", "workplace trauma", "emotional abuse", and "violence (zorbalık)" (Çobanoğlu, 2005). The study of "workplace mobbing" began with Dr. Heinz Leymann, a renowned psychologist and professor in the early 1980s.



Mobbing, which is defined as discomforting, galling and adverse behaviours directed systematically at one individual by one or more individuals in the workplace (Cowie, Naylor, Rivers, Smith, & Pereira, 2002) is prevalent in health, education and defense oriented organizations (Farrington, 2010). Mobbing is explained as a psychological terror, emotional attack or being against to something or someone (Yüçetürk, 2002). And also mobbing is a psychosocial risk that consequently leads to “burnout” and “negative actions” between members of an organization (Arnejcic, 2016). Academics and students at university have the right of thinking, feeling and speaking in appropriate way of human values (Bradley, 2009). For this reason, they should be able to express their views and feelings freely. However, research in the literature show that mobbing culture is seen mostly at universities and university campuses (Whesteus, 2007). Regarding this, there are many research conducted with administrators and academics as well (Raskauskas, 2006, Boynton, 2005, Caborar and Rodriguez, 2006). On the other hand, there is no research carried out with university students who are an important component in the body of university. Therefore, this study aims to determine the views of teacher candidates related to the concepts of effectiveness, managerial effectiveness and mobbing. With this aim, the following questions were addressed:

Of the teacher candidates,

- What do they think about effectiveness?
- What do they think about managerial effectiveness?
- What do they think about mobbing?
- What do they think about if their instructors apply mobbing at the faculty?
- What do they think about how the instructors use mobbing at the faculty?
- What do they think about mobbing if they have witnessed any mobbing case?

Method

Research Design

This study follows qualitative research method. Qualitative methods enable researchers to be subjective and flexible during the research process and this gives chance to a researcher to reproduce the research process and to analyze data based on inductive approach (Yıldırım&Şimşek, 2011; Creswell, 2013).

Study Group

The study group consists of 50 teacher candidates (37 females and 13 males) in Çanakkale Onsekiz Mart University, School of Education at the academic year 2018-2019.

Data Collection Tool

In the study, semi-structured interview form was used as data collection tool. The questions of form are determined according to the related literature based on the purpose of the study. The following questions were asked to the participants:

1. How do you define ‘effectiveness’?
2. How do you define ‘managerial effectiveness’?
3. How do you define ‘mobbing’?
4. Do you think the instructors at your faculty apply mobbing? If yes, how?
5. Have you ever witnessed any mobbing case during your teacher training period at the university?

Reliability and Validity

The validity of the questions was determined by Lawshe’s (1975) ‘content validity rate’. In this analysis, the experts review the expressions in interview form and evaluate them as appropriate, may remain or inappropriate. Each ‘appropriate’ answer determines the total coefficient to be reached. In this study, totally 5 experts evaluated



the interview questions, in which one is from Turkish Education, three are from Educational Administration and one is from Assessment and Evaluation Department. The table below shows the content validity results.

Table 1. Content validity results

Interview questions	appropriate	may remain	inappropriate	content validity rate (p)
1	5	0	0	1
2	5	0	0	1
3	5	0	0	1
4	5	0	0	1
5	5	0	0	1
content validity index				1,00

As a result of coding process by three expert academics, the reliability of the study was measured according to Miles and Huberman's reliability formula and it was found as 91%.

Analysis Techniques

Content analysis technique was applied during the data analysis process. First, interview forms were numbered. Then each participant's answers were coded and frequency distributions were added. The codes were categorized under effectiveness, managerial effectiveness, mobbing, mobbing using situation of the university instructors and the way of their using mobbing, and being witnessed of mobbing. The quotations were elaborated for each category by stating the participant number and gender in parenthesis. In addition, the total frequencies are more than the number of the participant because one participant could state multiple views in the same questions.

Findings

The findings obtained from the data analysis of the research are given below. In the research, the opinions of the teacher candidates about effectiveness have been handled and given in Table 2 together with their frequency.

Table 2.Teacher candidates' views on effectiveness

Effectiveness	f
Taking teacher as a role model	2
Educational activities	2
Using communication ways successfully	5
Ensuring validity	4
Make it interesting	2
Being active, being different and providing permanence	14
Interaction with people	1
Have the power without rules	3
Can chance people	5
Achieving purpose	2
Impact	2
Total	42

In Table 2, teacher candidates' opinions about effectiveness are given. Teacher candidates defined effectiveness in different ways. Definition with highest frequency is "being active, being different and providing permanence". Some examples of teacher candidates are below:



- “The state of making an object, a phenomenon, situation or person more attractive” (S6, M)
- “To influence other people and convince them about yourself using your opinions and other factors.” (S16, F)
- “To have the power in a place by using rules and being objective” (S16, F)
- “The level of reaching pre-determined purposes” (S23, F)
- “The degree of reaching purposes. To what extent you reach your aim, you are such effective. The situation of being effective is effectiveness.” (S27, F)

For second research question, the participant teacher candidates were asked about their views on managerial effectiveness. The results for their answers were given on Table 3 below;

Table 3. Teacher candidates’ views on managerial effectiveness

Managerial effectiveness	f
Being successful in management	10
Making good decisions	4
Making interest	1
Holding power in management	7
Coordination and cooperation in management	3
Equipped and consistent behavior	4
Maximum efficiency received	2
Do the best job	2
Total	33

In Table 3, teacher candidates’ opinions about managerial effectiveness are given. They defined managerial effectiveness in different ways. Definition with the highest frequency is “being successful in management”. Some examples of teacher candidates are below:

- “To make the management more interesting” (S5, M)
- “To have the power in management” (S6, M)
- “To provide coordination and cooperation by reducing the problems to minimum” (S12, M)
- “To perform leadership behaviors and to be modest” (S13, F)
- “To have your students/workers perform in the highest efficiency level” (S13, F)
- “To fulfill your tasks required for your status and to be active” (S47, F)

Another question asked to the participants were about mobbing concept and Table 4 below shows the analysis results related to the views of the teacher candidates about mobbing.

Table 4. Teachers' candidates views on mobbing

Mobbing	f
Repression	6
Emotional pressure	9
Disturbing, intimidating	18
Bullying	13
Threatening with marks	2
Exclude	1
Remain under stress	2
Verbal violence	3



Total 54

In Table 4, teacher candidates' opinions about mobbing are given. They defined mobbing in different ways. The highest frequency belongs to "disturbing, intimidating and bullying". Some examples of teacher candidates are below:

- "To suppress a person in verbal manner – mobbing" (S42, M)
- "To make people demoralize and underperform by putting psychological pressure on them" (S1, F)
- "To put pressure on people emotionally and to apply demoralize policy through their goals" (S2, M)
- "To drag people into emotional chaos verbally" (S7, M)
- "To act disturbing behaviors for other people" (S13, F)
- "To blackmail to get a job done; for example, a teacher blackmail students with grades" (S14, F)
- "For teachers, to threaten students with grades" (S17, F)
- "To exclude definite persons by other organized people in a workplace and to ignore them by not valuing" (S26, F)

As the fifth question, the participants were asked whether the university instructors apply to mobbing and if yes, how they apply to mobbing. The results with frequency distribution are given below in Table 5.

Table 5. Teacher candidates' views on the use or not of mobbing by instructors

	f
Use	34
printing with political	4
threat with grades and homework	8
emotional pressure	5
psychological pressure	6
overawe from lessons	7
humiliation-insulting	3
threatening with absenteeism	1
not use	16
Total	50

Table 5 shows the frequency distribution in terms of whether the university instructors apply to mobbing and how they do it. The results show that the participant teacher candidates think that the university instructors apply to mobbing. The teacher candidates mentioned several ways of mobbing about how the university instructors apply to mobbing. The ways of applying mobbing with the highest frequency are to overawe from lessons, to put on psychological pressure, and to threat students with grades and homework. Some example quotations from the participants are in the following:

- "I think, some of them apply to mobbing. They want to impose their thoughts and views on students and also they prevent the opponent views by suppressing them to be silent." (S49, F)
- "Yes, they do. They threat students with grades and overawe from lessons." (S48, F)
- "Yes, they do. They make threatening sentences related to grades and absenteeism." (S46, F)
- "Some of them do it. By humiliating or insulting in terms of knowledge level" (S27, F)
- "Yes, they do. They frustrate students about lessons. They are the behaviors performed by a teacher without purposefulness, instead for their ego satisfaction." (S22, F)
- "Yes. Especially the ones bother who do it over political issues." (S6, M)



Final question of the study was if the participant teacher candidates have witnessed any mobbing case ever. The results were given at Table 6.

Table 6.Teacher candidate's views on witnessing mobbing or not

	f
I witnessed mobbing	22
I have never witnessed mobbing	28
Total	50

Table 6 reveals the results about the situation whether the teacher candidates have ever witnessed any mobbing case. According to the results, 22 of the participants have witnessed a mobbing case as well as 28 of them have not witnessed any mobbing case before. Some quotations from the participants' views are in the followings:

"Because of differentiating opinion between the instructor and my classmate, the instructor did not let my classmate to talk in classroom." (S10, F)

"The audience's verbal abusing during the presentation made my classmate felt under pressure emotionally." (S14, F)

"Yes, I have been threatened with overawing from the lesson." (S17, F)

"It happened at high school. The teacher was asking difficult questions to a student with whom s/he argued." (S24, M)

"I witnessed. I have been threatened by some instructors at university in terms of grades." (S29, F)

"Yes, I did. An instructor applied it by threatening students with overawing from lesson to get a job done." (S32, F)

"I witnessed that they insulted views of students." (S42, M)

Conclusion and Recommendations

This study examines the views of teacher candidates related to the concepts of effectiveness, managerial effectiveness and mobbing as well as their views on whether the instructors apply to mobbing, the ways of applying to mobbing and their experiences with mobbing. According to the study results, the teacher candidates defined effectiveness in different words such as being active, being different and providing persistence, reaching to purposes, and acting communicating skills successfully. These definitions made by the teacher candidates show similarity with those in the literature. For example, Homgren et al. (2000) defines that effectiveness is the performance aspect which determines to what extent an organization reach its goals as a result of its activities. In addition, Karşlı (2004) states that effectiveness is the level of reaching goals for an organization. An organization's accomplishing its purpose is based on cooperation among organization members, their communication and commitment with the organizational goals. All of these factors make an organization effective.

As a second important result of the study, the teacher candidates defined managerial effectiveness as being successful in management and having power in management. Reddin (1970) stated that managerial effectiveness is to produce outcomes conforming to managerial position of an administrator. Besides, Karatepe (2005) stated the aspects of managerial effectiveness which are communication, planning and organization, decision making, problem solving, interest in the personnel, being creative/innovative, team working, and honesty/trustworthiness. To perform well in terms of all these aspects requires being a successful manager. Thus, an organization's managerial effectiveness is based on the manager's performance. The more qualified and competent manager an organization has, the more effective it is effective (İra & Şahin, 2010).



Regarding the mobbing concept from the point of views of the teacher candidates, they defined mobbing in different ways: bothering, intimidation and violence/bullying. There is similarity with these definitions with the literature. For instance, Çobanoğlu (2005), Tınaz (2008), Leyman (1990) and Whesteus (2006) stated in their definitions that mobbing is psychological terror, psychological abuse in workplace, emotional attack in workplace, intimidation (yıldıрма), violence/bullying (zorbalık). Further, Tigrel and Kokolan (2009) emphasized the phrases of psychological violence, pressure, bullying and abuse to refer mobbing in Turkish context. Those definitions show similarity with the ones in this study. Moreover, teacher candidates stated that the instructors at university applied to mobbing by putting emotional and psychological pressure on students, and threatening students with grades and homework. In addition, most of the teacher candidates mentioned that they witnessed mobbing cases during their education at university. In the literature, the studies also revealed that mobbing cases were faced mostly at universities (Gül, İnce&Özcan, 2011; Yaman, 2007; Amejcic, 2016).

The following recommendations were put forth based on the study results:

- For further research, studies seek for the views of faculty members might be conducted. Teacher candidates' approaches and judgments may change throughout their educational period. Thus, faculty members might be asked directly if they apply to mobbing as well.
- Experimental research might be designed to study different environments to increase managerial effectiveness and to work together in cooperation between administration and personnel.

References

- Arnejčič, B. (2016). Mobbing in company: levels and typology. *Organizacija*, 49(4), 240-250. doi:10.1515/orga-2016-0021
- Boynton, P. (2005). Unpacking my research on bullying in higher education. In R. McKay, D.H. Arnold & J. Fratzl. *Workplace Bullying in Academia: A Canadian Study*. *Employment Rights Journal*, 20, 77-100.
- Cabaro, M.A. & Rodrigues, P.V. (2006). Psychological harassment in the Spanish public university system. *Academy of Health Care Management Journal*, 2, 21-39.
- Comstock, P., Nilakant, V., and Dakin, S. (1995). Developing a lay model of managerial effectiveness: a social constructive perspective. *Journal of Management Studies*, 32(4), 443-474.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage
- Çobanoğlu, Ş. (2005). Mobbing: İşyerinde duygusal saldırı ve mücadele yöntemleri. İstanbul: Timaş Yayınları.
- Einarsen, S., & Mikkelsen, E. G. (2003). Individual effects of exposure to bullying at work. In S. Einarsen H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and emotional abuse in the workplace: International perspectives in research and practice* (pp. 127-144). London: Taylor & Francis.
- Gül, H., İnce, M., Özcan, N., (2011). The relationship between workplace mobbing and burnout among academics at a Turkish university, *Research Journal Of International Studies*, Sayı: 18, 118-134.
- İra, N. & Şahin, S. (2010). Yönetimsel etkililik ölçeğinin Türkçeye uyarlanması, *Buca Eğitim Fakültesi Dergisi*, S. 28, S.16-29.
- Karatepe, S. (2005). Yönetimsel etkililik: okul yönetiminde yönetimsel etkililiğin astlarla ilişkiler boyutu, *Süleyman Demirel Üniversitesi, İktisadi ve İdari Bilimler Fakültesi Dergisi*. C.10, S.2, s.307-326. Isparta
- Karlı, M. D. (2004). *Yönetimsel etkililik*. Ankara: Pegem A Yayıncılık.
- Leymann, H. (1990). Mobbing and psychological terror at workplaces. *Violence and Victims*, 5(2), 119-126. doi:10.1891/0886-6708.5.2.119
- Raskauskas, J. (2006). Bullying in Academia: An examination of workplace bullying in New Zealand universities. In R. McKay, D.H. Arnold & J. Fratzl. *Workplace Bullying in Academia: A Canadian Study*. *Employment Rights Journal*, 20, 77-100.
- Reddin, W.J. (1970). *Managerial effectiveness*, McGraw. Canada: Hill Book Company.



- Sutherland, J. (2006). Not Strictly with the Birds. Available at: <http://www.guardian.co.uk/education/2006/may/10/highereducation.com> ment
- Özdemir, Ç., Yüksel, G. ve Cemaloğlu, N. (2006). Türkiye üniversiteleri öğretim elemanı araştırması. Ankara.
- Tınaz, P. (2008). *Çalışma psikolojisi ve hukuki boyutlarıyla işyerinde psikolojik taciz (mobbing)*. İstanbul: Beta Basım.
- Tigrel, E.Y. and Kokalan, O. (2009). Academic mobbing in Turkey. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering* Vol:3, No:7, 2009
- Westhues, K. (2006). *The remedy and prevention of mobbing in higher education*. In C.D. Bultena & R.B. Whatcott. *Bushwhacked at Work: A Comparative Analysis of Mobbing & Bullying at Work*. Proceedings of ASBBS, 15 (1).
- Yüçetürk, E. (2002). Bilgi çağında örgütlerin görünmeyen yüzü: mobbing. Available at: [www. bilgiyonetimi. org/cm/ pages/mkl_gos.php?nt=224](http://www.bilgiyonetimi.org/cm/pages/mkl_gos.php?nt=224)
- Yaman, E. (2007). *Üniversitelerde bir yönetim sorunu olarak öğretim elemanlarının maruz kaldığı informal cezalar: Nitel bir araştırma*. Yayınlanmamış doktora tezi, Marmara Üniversitesi, İstanbul.
- Yıldırım, A. ve Şimşek, A. (2011). *Sosyal bilimlerde nitel araştırma yöntemleri*. Ankara: Seçkin Yayıncılık



The Effect of Green Value Chain Applications on the Performance of Companies in Ensuring Sustainability of Enterprises: An Application in Turkey

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Abstract

(1) Background: Green value chain practices mean that businesses create value in order to create sustainable competitive advantage at different stages from the design of their products to the after-sales services. At this point, while creating value is of strategic importance, the focus of all activities is to minimize environmental impacts and pollution, to protect the environment and even to make proactive arrangements if possible. In this study, the relationship between green value chain applications and business performance, which is a tool based on ensuring sustainability of enterprises, is investigated. (2) Methods: The hypothesized relationship of this model tested with data collected from 175 manufacturing firms by using SPSS and simple regression analysis. (3) Results: Green value chain applications; examined as green basic activities and green support activities, business performance is also considered as economic and socio-ecological performance in two dimensions. In the research, it has been found that green value chain applications positively affect the economic and socio-ecological performance of enterprises, but the power of this effect is relatively weak. (4) Conclusions: In order to provide competitive advantage, enterprises create value at the rate they create. Green value chain applications, which are a means of creating value in enterprises, have an impact on the performance of the enterprise. Many implications indicated by the study's findings, both theoretical and practical, were discussed.

Keywords: Green value chain applications, business performance, sustainability, economic performance, socio-ecological performance

Introduction

In order to sustain their assets and increase their profitability and productivity, enterprises have a structure that affects their environment positively or negatively as well as affected by the environment. Although the size of the interaction varies from business to business, the negative impact of the interaction with the environment and the resulting outcome have been effective in the society for the last fifteen years, in making ecological (environmental) problems the most important and priority social interest in enterprises at the strategic level Akatay and Aslan [1]. In particular, the enterprises that are the greatest creators of environmental pollution have to act environmentally sensitive within the scope of legal regulations.

Sustainability, environmental awareness and developing environmental management practices in this context are very useful but also difficult to achieve activities. These practices, which can also be referred to as environmental management practices, take place in a wide range from the purchase of raw materials to the disposal of the product (purchase, production, marketing, waste management...). At this stage, enterprises benefit from techniques that can guide environmental management such as green value chain applications. Green value chain practices mean that businesses create value in order to create sustainable competitive advantage at different stages from the design of their products to the after-sales services. At this point, while creating value is of strategic importance, the focus of all activities is to minimize environmental impacts and pollution, to protect the environment and even to make proactive arrangements if possible Aykan and Sevim [2].

In academic studies focusing on environmental issues, there are few studies Gupta [3]; Starik and Rands [4]; Shrivastava [5]; Hart [6]; Tan [7]; Gonzeles-Benito [8]; Cater et al [9]; Yulhasri and Jin [10]; Aykan and Sevim



[2], based on the testable hypotheses of the place of environmental management in the value chain and the effect of environmental concerns on the performance of enterprises

is determined that environmental management practices and activities (which can be expressed as environmentally sensitive management, environmental management, ecological management or green management) are related to the performances of enterprises. The performances of the enterprises are mostly economic such as product quality, efficiency and productivity, sales, profit margins increase, cost savings, new market opportunities or increase in market share; It has been evaluated within the framework of socio-ecological performance criteria such as decrease in environmental complaints related to products, decreases in waste and emission amount, increases in recycling practices, increase in business image and social cohesion. In this context, it is assumed that there may be a positive relationship between green value chain practices and economic and socio-ecological performance of enterprises in order to provide sustainable competitive advantage. From this point of view, the aim of this study is to determine the effect of green value chain applications on the performance of enterprises. In this study, first of all, green value chain and business performance concepts will be explained briefly and research findings will be included within the framework of developed model.

Literature Review

Green value chain

The concept of Value Chain was first defined by Porter [11], as the evaluation of nine general activities that create value in enterprises in order to gain competitive advantage. However, Handfield et al.[12], stated that the value chain is evaluated as a whole of different activities such as design, supply, logistics, assembly, production, marketing, sales and after-sales service applied throughout the life of the product. The green value chain includes the addition of a new dimension of environment to the traditional value chain Solvang et al. [13]. In this context, the green value chain refers to the evaluation of activities that create value by considering the natural resources and environment in the basic functions of the enterprise with a holistic and sustainability perspective. The green value chain is used as a means of revealing the advantages and weaknesses of the company's activities through ecological evaluation. According to Akdogan [14] the main importance of this tool is to evaluate the business as a whole and not only to popular marketing and advertising issues, but also to determine the situation within the scope of environmental sensitivity.

In the literature, green value chain applications have been examined from different perspectives. The most widely accepted of these perspectives is Porter's [11], value chain analysis, developed within the scope of basic and auxiliary activities Saha and Darnton [15] ; Ndubisi and Nair [16]. Solvang et al. [13] evaluated the value chain practices within the framework of waste reduction approaches in the process ranging from suppliers to consumers. Sitkin [17], evaluated the green value chain functions within the scope of upstream (sourcing and production) and downstream (packaging and logistics) activities, 2013). Table 1 summarizes the green value chain practices within the framework of core activities and support activities (internal support activities, external support activities) Aykan [2] .

Table 1. Green Value Chain

Internal Support Activities	Primary Activities				External Support Activities	Economic Conditions
	Green Operations	Green Logistics	Green Marketing and Sales	Green Services		
Green Infrastructure Development	Recyclable packaging	Transport impacts, transportation	Raw materials, supply	Receipt and environmental disposal of		



		and storage modes		used products	
Green Technology	Pollution minimization and control, energy efficiency	Waste management, alternative energy sources	Packaging reduction	Restorations and improvements	NGOSs
Green Human Resource Management	Corporate environmental awareness, corporate culture, training programs	Contracts, supplier selection, staff selection	Internal and external communication, community liaison	Incentives, rewards for green ideas and practices	State
Green Regulations/ Management Systems	“Just-in-time” processes	Recyclability	Green product development, green product supply	Environmental standards	Government Policies

Source: Aykan, 2013, (Adapted from Saha, M., G. Darnton, 2005 and Ndubisi, N. O., S.R. Nair, 2009).

Economic theories and models have led enterprises to maximum profitability rather than sustainability in the long run. However, Gauthier [18] according to environmental adversity and accidents forced businesses to act in accordance with the sustainability principles in environmental issues. Akdoğan [14], green value chain implementations are considered as a tool for adopting the approach of going from cradle to grave pollution which means killing the pollution before the birth in the enterprises. Green value chain practices, which are expressed as a means of ensuring ecological sustainability, are composed of basic activities and support activities. While the main activities are handled in four dimensions as green logistic, green operations, green marketing and sales and green services, support activities are examined in two groups as internal and external.

Business performance

According to Bingöl [19], performance refers to the level of efficiency of a job or the behavior of an employee or the results obtained by performing an assigned job within a certain period of time. Business performance includes the actual output or results of an organization. Performance criteria in enterprises enable businesses to focus on areas that require attention. The aim here is to improve by evaluating how well the work is done in terms of cost, quality and time, and to survive by responding to world-class competitive pressure, for Skrinjar et al. [20].

Different methods are recommended for performance measurement in enterprises. The most widely used and widely accepted quantitative financial indicators and methods Venkatraman and Ramanujam [21]. However, Maskell [22] stated that financial indicators are not sufficient for measuring business performance, and that qualitative indicators such as customer service and satisfaction, product quality, learning and innovation according to Kaplan and Norton [23]; Neely [24]; Neely et al. [25], should be evaluated. Hult et al [26] emphasize the need for financial, operational and organizational performance measures for business performance measurement.

In the literature, another approach to determine business performance based on cost-benefit relationship is ecological-economic performance according to Schaltegger and Synnestvedt [27]; Orlitzky et al [28]; Boons and Wagner [29]. Gandhi et al. [30] (2006), suggested that greening of value chain will finally lead to future sustainability with formation of win-win collaboration with regulatory, community and consumers. These practices try to minimize the damages to the environment in enterprises, respond to the demands of green consumers and eco-efficient products gain importance. These results provide sustainable competitive advantage for businesses. According to Annunziata et al [31], performance criteria for creating sustainable competitive advantage through green value chain analysis can be analyzed as financial, social and ecological performance.



As well as by Cater et al.[9] reported that they may be examined under financial and non-financial performance or economical and socio-ecological performance [32].

Economic performance: Extant literatures showed that sustainable competitive advantage via green value chain initiatives can lead to superior marketplace performance which can be measured in conventional terms such as market share, customer satisfaction etc., and financial performance such as return in investment shareholder wealth creation, profitability etc. Bharadwaj et al.[33]; Cagno et al. [34]; Cater et al. [9].

Socio-environmental performance: Also the nonfinancial performance socio-environmental performance of a company is indicated by indicators such as acquired environmental standards, improved customer loyalty, greater satisfaction of employees etc. and can only be achieved by implementing a systematic approach to setting environmental objectives and targets Cater et al.[9] . GVCI will also lead to cleaner, greener, and much more efficient operations, better environmental performance with reducing damages to the latter, besides overall improvement of the company's image. According to Yuliasri and Jin[10] these environmental benefits enjoyed therefrom are believed will spill over to general public and thus, will improve the social performance. In short, green value chain practices aim to achieve more sustainable development with business image, sales, market share and profit growth.

Methodology

Purpose of the research

Achieving sustainable competitive advantage, which is defined as the application of a value-creating strategy that cannot be implemented at the same time by its current or potential competitors and whose benefits cannot be copied Barney [35], has become the priority of enterprises today. Green value chain practices are used as a useful tool for environmentally conscious countries, businesses and employees in providing competitive advantage. In this context, it is assumed that there may be a positive relationship between green value chain practices and economic and socio-ecological performance of enterprises in order to provide sustainable competitive advantage. From this point of view, the aim of this study is to determine the relationship between green value chain applications and business performance of enterprises; The aim of the study is to determine the impact of green value chain implementation dimensions, green basic and green support activities, on economic and socio-ecological performances, which are the dimensions of enterprise performance.

Data collection

The population of the research is an important trade center in Turkey, where there is cutthroat competition; the manufacturing industry is composed of businesses operating in the Kayseri Organized Industrial Zone. The main group consists of 390 manufacturing industry enterprises of medium and large size (employing more than 50 personnel) among the 940 enterprises listed in the company list of Kayseri Organized Industrial Zone. The research data were collected through a questionnaire applied to the managers of the quality department of the identified enterprises or department managers responsible for environmental applications. 175 of these enterprises received responses and the return rate was calculated as 44.87%.

The questionnaire, which was created to collect data, consists of three parts. In the first part, there are 10 questions about the manager and the enterprise that completed the questionnaire, in the second part there are 23 statements to determine the value chain applications of enterprises and 17 statements to measure the performance of the enterprises. The scales used in the study are as follows:

Green value chain practices: It was developed by Yang et al.[36] on a 5-point Likert scale, and product designs and measured by 23 statements like, "plans in our company were tried to be environment-oriented". In the scale 1 means "strongly disagree", 5 means "strongly agree".



Business performance: It was measured by 17 expressions, which were developed by Rao and Holt [37], like “productivity increased after green value chain applications in our business”. Reliability of the scale, Cronbach’s Alpha Value was calculated as 0.941. In the scale 1 means “strongly disagree” and “5 strongly agree”.

Research model

In the literature, it is stated that green management practices have positive results such as clean and green practices, improvement and development in processes, profitability, competitive advantage in products and services, growth in market share, business image, improvement in management systems, customer service and satisfaction, product quality, learning and innovation (Kaplan and Norton [23]; Neely et al.[25]; Saha, Darnton [15]; Tan [7]; Ndubisi and Nair [16]; Cater et al.[9]; Çabuk et al. [38]; Tan and Zailani [39]; Silptheep [40] ; Yulishasri and Jin [10]). However, According to Tan [7]; Tan and Zailani [39]; Silptheep [40]; Yulishasri and Jin [10]; Annunziata et al. [31], the results of the green value chain applications are mostly evaluated within the framework of sustainable competitive advantage and social responsibility of enterprises While economic or financial performance constitutes the competitive advantage dimension of green value chain applications, non-financial or socio-ecological performance is evaluated within the scope of social responsibility of enterprises. In this context, the following hypotheses were developed:

Hypothesis 1 (H₁): There is a significant and positive relationship between green value chain applications and business performance in enterprises.

Hypothesis 2 (H₂): Green core activities positively affect the economic performance of enterprises.

Hypothesis 3 (H₃): Green core activities positively affect the socio-ecological performance of enterprises.

Hypothesis 4 (H₄): Support activities positively affect the economic performance of enterprises.

Hypothesis 5 (H₅): Support activities positively affect the socio-ecological performance of enterprises.

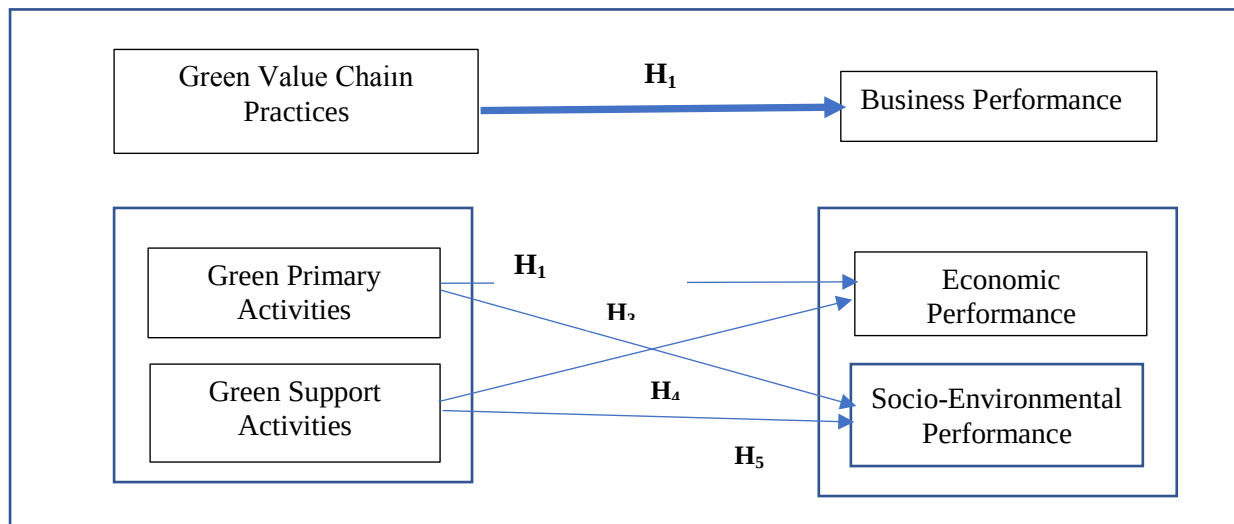


Figure 1. Research Model

Data analysis

The data obtained from the study were entered into the electronic environment using statistical package program and statistical analyzes were performed. Kolmogorov-Smirnov (n> 50) test was performed to prove the normality of the distribution. In addition, kurtosis-skewness values (+ 1.5 / -1.5) were found to be in the range. The data were normally distributed and parametric tests were used. The reliability of the scales was calculated using Cronbach’s Alpha Value. In order to test the construct validity of the scales, exploratory Factor Analysis was conducted, and whether the previously defined structure was confirmed in the new sample group due to the



change in the sample property was examined with the Confirmatory Factor Analysis (CFA) and the fit indices were determined. The relationships between dependent and independent variables were determined by calculating Pearson Correlation Coefficient (H1). Simple regression analysis was used to determine the effect of independent variable on the dependent variable (H2, H3, H4, H5).

Findings

This section presents the findings for research analysis. Firstly, the demographic data for the managers and their businesses are included and then the results of the analysis to test the hypotheses are explained.

The main mass of the research consists of manufacturing industry enterprises operating in Kayseri Organized Industrial Zone. The main group consists of 390 manufacturing industry enterprises of medium and large size (employing more than 50 personnel) among the 940 enterprises listed in the company list of Kayseri Organized Industrial Zone. The research data were collected through a questionnaire applied to the managers of the quality department of the identified enterprises or department managers responsible for environmental applications. 175 of these enterprises received responses and the return rate was calculated as 44.87%.

Demographic features

70.1% of the participants were under the age of 40, 19.4% were in the 31-40 age range and 6.9% were in the 41-50 age range. 2.9% are 51 years or older. 89.1% of the participants were male. It is seen that 113 of the 175 participants who participated in the study received undergraduate and higher education. 13.1% of the enterprises employed by the participants had 50-100 employees, 8% had 101-200 employees and 78.9% had more than 201 employees.

Validity and reliability findings

Cronbach Alpha Coefficient was used for reliability analysis of the scales. The reliability of the green value chain applications scale was calculated as Cronbach's Alpha Value of 0.934 and the reliability of the enterprise performance scale as 0.941. The fact that this coefficient is above 0.90 indicates that the scale is reliable.

Factor analysis for the green value chain practices and business performance

Table 2. Factor Analysis for the Green Value Chain Practices

Variables		Statements	Factor Loading	Factor Validity	Factor Variance
Green Base Activies		İn our company, the environmental impact of materials and processes is reduced and environmental requirements are met.	.855	.901	35.03
		Product designs and plans are made to focus on the environment.	.851		
		When planning products and processes, recycling and utilization opportunities are evaluated.	.764		
		Compliance of materials and suppliers with regard to environmental regulations is evaluated in our company.	.742		
		In our company, green products are classified and stored in different places than other products.	.716		
		Quality control is carried out in an environment-oriented manner.	.706		
		Serious environmental protection measures are taken in our facility.	.694		
		Energy and resource savings are made in our facility.	.679		
		Reduction, control, reuse and / or recycling of emissions, wastes in processes is carried out in our facility.	.675		
		Green products are labeled, and information is monitored and reviewed.	.655		
		Green products can be shaped according to external	.639		



Green Support Activities	demands.			
	Environmental requirements, regulation and legislation provisions are taken into consideration in our business and are understood.	.780	.803	21.89
	Our company shares environmental results and records with the public.	.729		
	In our company, trainings are provided for employees on environmental protection.	.696		
	In our company, corrective and protective activities are being established about the environment.	.687		
	Process and equipment adjustments are recorded.	.671		
	The provisions of environmental regulation and legislation are periodically reviewed.	.661		
	A department responsible for the management and control of environmental wastes and emissions has been established in our facility.	.592		
KMO= 0.884 p=0.00		Total Variance=56.925		

In the explanatory factor analysis, it is desirable that the factor loadings are 0.50 and above for the variables under the factors for Nunnally [41]. It was found that the factor loads of 23 variables related to the total two dimensions in Table 2 ranged from 0.592 to 0.855, thus satisfying the desired condition. KMO, which is the sample adequacy coefficient, is 0.88. Therefore, it is seen that the data structure of the research is suitable for factor analysis. As a result of factor analysis performed with Varimax rotation, Table 2 shows that the scale is collected under two factors in accordance with the original form. Factor names are given as; green basic activities and green support activities. The cumulative total variance explanation ratio of both factors is 56.93%, which is above the acceptable value of 50%.

Table 3. Factor Analysis for the Business Performance

Variables	Statements	Factor Loading	Factor Validity	Factor Variance
Socio-Environmental Performance	Environmental protection and environmental awareness have increased in our business.	.852	.906	33.21
	Recycling practices have increased in our company.	.779		
	The environmental image of our business has increased.	.775		
	Solid / liquid wastes are reduced in our facility.	.755		
	Social commitment has increased in our business.	.721		
	The efficiency of our business has increased.	.716		
	Environmental complaints made to our business have decreased.	.709		
	Emissions have been reduced in our facility.	.628		
Economic Performance	The profit margin of our business has increased.	.845	.872	27.18
	The market share of our business has increased.	.811		
	Sales of our business increased.	.763		
	Prices of products in our business have increased.	.690		
	Cost savings were achieved in our facility.	.686		
	New market opportunities have emerged.	.579		
	The efficiency of our business has increased.	.569		
KMO= 0.877 p=0.00		Total Variance=60.40		



The original business performance scale has two sub-dimensions, namely economic factors and socio-ecological factors. Explanatory factor analysis was conducted to determine whether the same dimensions (structure) emerged in terms of the data of this study. As shown in Table 3, factor analysis with the Varimax Rotation method showed that the scale had more than two factorial distributions and that some items were not in the required size, so that seventeen was analyzed using the factor fixation method in order to stay true to the two-factor structure of the original scale. Thus, a two-dimensional structure was reached as in the original scale. As a result of factor analysis, it was concluded that both dimensions explained 60.4% of the total variance and KMO sample adequacy value was 0.88 and it was sufficient for factor analysis. It can be said that the scale has a similarity with the original scale in terms of structure and has a construct validity.

In the study conducted on 175 participants working in production enterprises, confirmatory factor analysis was performed in order to verify the structures of the scales described above. Whether the previously defined structure was confirmed in the new sample group due to the change in the sample property was examined by Confirmatory Factor Analysis (CFA). The CFA applied to the 23-item structure of the 2-factor scale of the green value chain applications scale was applied as a representative of the construct validity. Firstly, there are 5 items with non-significant t-value in the CFA analysis. This item was removed from the scale and the DFA model was re-established. When the compliance statistics of the items of the CFA model established with 18 items were examined, it was concluded that there were no incompatible items. It was seen that the items of the scale were confirmed to be compatible with the factors. The compliance index values of the green value chain applications scale were found as $\chi^2 / (df)$ 4.97, RMSEA 0.015, CFI 0.707. Since it is in the range of $0 \leq \chi^2 / (df) = 4.97 \leq 5$, it appears to exhibit acceptable agreement. When the RMSEA value is less than 0.015 critical value, it shows a good fit index by Schermelleh et al. [42]. The CFI and RMSEA values have an acceptable fit index by Schermelleh et al. [42]; Çapık [43].

Similarly, confirmatory factor analysis was conducted in the enterprise performance scale and CFA was applied to the two-factor 17-item structure of the scale as a representative of the construct validity. 2 items were found to be incompatible and this item was removed from the scale and the DFA model was re-established. When the compliance statistics of the items belonging to the DFA model established with 15 items were examined, it was concluded that there were no incompatible items. Compliance index values of enterprise performance scale were calculated as $\chi^2 / (df)$ 4.55, RMSEA 0.014, CFI 0.809, GFI 0.755 and all values were acceptable.

Findings regarding the research hypotheses

According to the results of the study, the correlation matrix showing the relationships between green value chain applications and business performance is given below.

Table 4. Correlation Matrix

	Mean	Std. Dev.	1	2	3	4	5	6
1. 1.Green Primary Activities	3.69	.71	1					
2. 2.Green Support Activities	3.61	.70	.702**	1				
3. 3.Economic performance	3.61	.68	.171*	.401**	1			
4. 4.Socio-Environmental Performance	3.98	.65	.203**	.303**	.646**	1		
5. 5.Green Value Chain Practices	3.65	.65	.923**	.922**	.309**	.274**	1	
6. 6.Business Performance	3.80	.60	.206**	.389**	.912**	.903**	.322**	1

** $p > 0.01$, * $p > 0.05$

In the study, the green basic and support activities constituting green value chain applications have scores above average (3.69, 3.61, 3.65). The socio-ecological performance constituting the enterprise performance has a higher score than the economic performance (3.61) with an average of 3.98. As can be seen in Table 4, there is a statistically significant positive relationship between the dimensions of green value chain applications and



enterprise performance dimensions. The severity of the relationships is weak and moderate, indicating that business performance increases as green value chain practices increase. This situation requires acceptance of H1 hypothesis that there is a significant and positive relationship between green value chain applications and enterprise performance ($R = 0.322$; $p > 0.01$).

In the study, simple linear regression analysis was performed to test the above hypotheses. The analysis and the findings are given in the tables below.

Table 5. Coefficient Table of Regression Analysis to Determine the Impact of Green Core Activities on Economic Performance

	Unstandardized Coefficients		Standardized Beta	t	Sig.
	Beta	Standard Error			
Constant	3.012	0.271		11.11	0.00
Green Primary Activities	0.164	0.072	0.171	2.28	0.02

Table 6. Results of Regression Analysis to Determine the Impact of Green Core Activities on Economic Performance

	R	R ²	Adjusted R ²	Std. Error of The Estimate	F	Sig.
Green Primary Activities	0.171	0.029	0.023	0.677	5.185	0.02

$P < 0.05$, Depended Variable: Economic Performance

The descriptive coefficient (R^2) in Table 6 is the most common form of measurement of the goodness of fit of the linear model. This coefficient shows how much of the change in the dependent variable is explained by the independent variable (s). This is a good expression of the explanatory power of the regression model. Therefore, it can be said that 0.029 of the change in economic performance is explained by the green basic activities independent variable in the research model. When the relationship between the variables is examined, the Beta coefficient of 0.171 indicates that there is a positive and weak relationship between green core activities and economic performance. Accordingly, the H2 hypothesis of the research that “green basic activities positively affect the economic performance of enterprises” is accepted.

Table 7. Coefficient Table of Regression Analysis to Determine the Impact of Green Core Activities on Socio-Environmental Performance

	Unstandardized Coefficients		Standardized Beta	t	Sig.
	Beta	Standard Error			
Constant	3.292	0.257		12.79	0.00
Green Primary Activities	0.187	0.068	0.203	2.74	0.00

Table 8. Results of Regression Analysis to Determine the Impact of Green Core Activities on Socio-Environmental Performance

	R	R ²	Adjusted R ²	Std. Error of The Estimate	F	Sig.
Green Primary Activities	0.203	0.041	0.036	0.643	7.473	0.00

$P < 0.05$, Depended Variable: Socio-Environmental Performance

Similarly, it can be said that 0.041 of the change in Socio-Environmental performance is explained by the green basic activities argument in the research model. When the relationship between variables is examined, Beta value of 0.164 indicates that there is a positive and weak relationship between green basic activities and Socio-Environmental performance. Accordingly, the H3 hypothesis of the research “Green core activities positively affects Socio-Environmental performance of enterprises” is accepted.



Table 9. Coefficient Table of Regression Analysis to Determine the Impact of Green Support Activities on Economic Performance

	Unstandardized Coefficients		Standardized	t	Sig.
	Beta	Standard Error	Beta		
Constant	3.012	0.271		11.11	0.00
Green Support Activities	0.164	0.072	0.171	2.28	0.02

Table 10. Results of Regression Analysis to Determine the Impact of Green Support Activities on Economic Performance

	R	R ²	Adjusted R ²	Std. Error of The Estimate	F	Sig.
Green Support Activities	0.401	0.160	0.156	0.623	33.064	0.00

P<0.00, Depended Variable: Economic Performance

In order to see the effect of employee-perceived green support activities independent variable on economic performance, which is a dependent variable, regression analysis results show that green support activities are statistically significant ($p = 0.00$) and positive (β value 0.171) and H4 hypothesis was accepted.

Table 11. Coefficient Table of Regression Analysis to Determine the Impact of Green Support Activities on Socio-Environmental Performance

	Unstandardized Coefficients		Standardized	t	Sig.
	Beta	Standard Error	Beta		
Constant	2.966	0.248		11.55	0.00
Green Support Activities	0.281	0.067	0.303	4.17	0.00

Table 12. Results of Regression Analysis to Determine the Impact of Green Support Activities on Socio-Ecological Performance

	R	R ²	Adjusted R ²	Std. Error of The Estimate	F	Sig.
Green Support Activities	0.303	0.092	0.086	0.625	17.44	0.00

P<0.05, Depended Variable: Socio-Environmental Performance

When the two tables above are considered, it is seen that green support activities have an effect of 8.6% on Socio-Environmental performance. A positive beta value indicates that the relationship is correct. In other words, Socio-Environmental performance increases as green support activities increase. The relationship is a weak relationship ($R = 0.303$). Significance level was $p < 0.00$. This result leads to the acceptance of the H5 hypothesis.

Results, Conclusion, and Recommendations

The necessity of today's enterprises to maintain the cost-benefit balance for sustainable competitive advantage has accelerated as a result of environmental pollution and accidents. Recognizing the necessity of the protection of the natural environment and the limitation of resources, awareness of sustainable development has gained importance in the world and they have turned to environmental management practices in enterprises. It acts with this awareness in all stages of business activities with environment-friendly business activities. Green value chain practices are among the important tools used for environmental management.

Despite the profit motive, which constitutes the most important objective of the enterprises, environmental protection and environmental practices were considered as cost-increasing activities for the enterprises and were implemented within the framework of legal obligations and obligations. This situation led to the evaluation of economic criteria before the social and ecological criteria. With the phenomenon of change and development



encompassing the world, businesses that wanted to survive in globalizing economies had to focus on providing competitive advantage in their products and processes. Therefore, environmental management practices and environmental performance criteria, which are the results of these applications, have gained importance for the enterprises.

With this study, it is aimed to determine the relationship between green value chain applications and business performance of enterprises, and to determine the impact of green value chain implementation, green basic and green support activities, on economic and socio-ecological performances.

In the research, green value chain applications and business performance averages of the enterprises are quite high. This may be due to the fact that approximately 80% of the enterprises participating in the study consist of medium / large and institutional enterprises. In the literature, according to authors such as Trotman and Bradley [44], Cowen et al. [45], Deegan and Gordon [46], corporate enterprises are expected to become more aware of environmental practices.

As a result of this research, a statistically significant positive relationship was found between green value chain applications and business performance. In this case, as the green value chain applications increase, the operational performance also increases. This situation requires acceptance of the hypothesis that there is a significant and positive relationship between green value chain applications and business performance. Previous studies reported positive relationships between environmental implementations and operational performance criteria such as a decrease in environmental accidents, an increase in research & development works, a decrease in process costs and an increase in quality according to Tan [7]; Gonzalez and Gonzalez-Benito [8]. Similarly, the findings of the study indicate that environmental practices are related to the economic performance of the enterprise (Rao and Holt [37] ; Cater et al.[9] 2009, Yang et al.[36]; Aykan and Sevim [2]) and their studies on both economic and socio-ecological performance (Gonzalez [8]; Yulihassri and Jin [10]; Aykan and Sevim [2]) support.

The research has some limitations. First of all, the research was conducted on the enterprises in a certain region and in a certain sector. This may pose a problem for the generalizability of the research. Performing local elections in Turkey in 2019, has created economic uncertainty and limitations in business performance in the presence of risk assessment. In addition, due to the fact that the concept of environmental sensitivity varies from person to person and from institution to institution, subjectivity may be involved in evaluating the applications of the participants in their enterprises.

It is known that environmental management practices are carried out mostly within the framework of legal obligations in enterprises. Considering it as a cost element in the short term and reflecting these practices to the company within the framework of individual environmentalism (volunteerism) understanding of the managers, it prevents the development of enterprises in this regard. At this point, it may be suggested that the researchers who will work on this subject will examine the green supply chain practices in the sample of enterprises having ISO 14001 environmental management system standard. Similarly, how green supply chain practices can create value on different sample groups; management approach, personality and leadership characteristics of managers, relationships between variables such as business structures and green value chain applications, and the effects of these relationships on the efficiency and efficiency of enterprises may be suggested.

References

Akatay, A.; Aslan, Ş., Yeşil yönetim ve işletmeleri ISO 14001 sertifikası almaya yönelten faktörler, Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, C10/S1 (2008), 313-339.



- Akdoğan, A., Environmentally conscious management and business, Kayseri chamber of commerce publications Kayseri, 2003.(in Turkish)
- Annunziata, E.; Pucci, T.; Frey, M.;Zanni, L. The role of organizational capabilities in attaining corporate sustainability practices and economic performance: Evidence from Italian wine industry, Journal of Cleaner Production 171 (2018) 1300-1311.
- Aykan, E., Relationships between emotional competence and task-contextual performance of employees, problems of management in the 21st century, Vol. 9, No. 1, 2014.
- Aykan, E.; Sevim, B., Konaklama işletmelerinde çevre yönetimi uygulamaları ve algılanan kurumsal itibar üzerindeki etkisi: Kayseri ve Nevşehir otelleri üzerinde bir araştırma. İşletme Araştırmaları Dergisi, (2013), 5(3), 93-113.
- Barney, J.B. , Firm resources and sustained competitive advantage, Journal of Management, (1991), Vol. 17, No. 1, ss. 99-120.
- Bharadwaj, S.; Vradarajan, P.R.; Fahy, J., Sustainable competitive advantage in services industries: A conceptual model and research propositions, Journal of Marketing 57 (4) (1993) 83-89.
- Bingöl, D., İnsan kaynakları yönetimi, 9. Press, Beta, İstanbul, (2014).
- Boons, F.; Wagner, M., Assessing the relationship between economic and ecological performance: Distinguishing system levels and the role of innovation, Ecological Economics Volume 68, Issue 7, 15 May 2009, Pages 1908-1914.
- Çabuk, S.;İnan, H.; Doğan, H., Südaş, gıda perakendecilerinin çevreye duyarlılığı üzerine bir inceleme, Anadolu University Journal of Social Sciences 10 (3) (2010) 1-10.
- Cagno, E.; Trucco, P.; Tardini, L., Cleaner production and profitability: Analysis of 134 industrial pollution prevention (P2) projects reports, Journal of Cleaner Production 13 (2005) 41-53.
- Çapık, C., Geçerlik ve güvenilirlik çalışmalarında doğrulayıcı faktör analizinin kullanımı, Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi, 2014; 17:3
- Cater,T.; J. Prasnikar, J.;Cater,B., Environmental strategies and their motives and results business practice, Economic and Business Review 11 (1) (2009) 55-74.
- Cowen, L.B.; Scott S.; FerreriLee D.Parker, The impact of corporate characteristics on social responsibility disclosure: A typology and frequency-based analysis, Accounting, Organizations and Society, Volume 12, Issue 2, 1987, Pages 111-122
- Deegan, C. ; Gordon, B., A Study of Environmental Disclosure Practices of Australian Corporations, Accounting and Business Research, (1996), Vol. 26, No. 3 (Summer), pp. 187-199.
- Gandhi, N.M.;Selladurai, V.; Santhi, P., Unsustainable development to sustainable development: A conceptual model, Management of Environmental Quality 17 (2006) 654672.
- Gauthier, C., Measuring corporate social and environmental performance: the extended life-cycle assessment, Journal of Business Ethics (2005) 59: 199–206.
- Gonzalez-J.B.;Gonzalez, O., Environmental proactivity and business performance: An empirical analysis, Omega 33 (2005) 1-15.
- Gupta, M., Environmental management and its impact on the operations function. International Journal of Operations and Production Management, (1995). 15(8), 34-51.
- Handfield, R.B.;Walton, S.V.;Seegers, L.K.;Melnik, S.A., Green value chain practices in the furniture industry, Journal of Operations Management 15 (1997) 293-315.
- Hart S.L., A natural-resource-based view of the firm. Acad Management Rev. (1995).
- Hult, G. T. M.; Ketchen J.R.; Griffith, D.A.; Chabowski, B.R.;Hamman, M.K.;Dykes, B. J.; Pollitte, W. A.;Cavusgil, S.T., An assessment of the measurement of performance in international business research. Journal of International Business Studies, (2008), 39(6), 1064-1080.
- Kaplan, R.S.;Norton, D.P. , Using the balanced scorecard as a strategic management system”, Harvard Business Review, (1996), 74(1), s. 75-85.
- Maskell,B., Performance measurement for world class manufacturing, Corporate Controller (COP), Jan-Feb, 44-48 (1992).



- Ndubisi, N.O.; Chukwunonso, N.C., Nigerian organizations and environmental quality management: A study of organizational buying behavior and landscaping adoption decision-making process, *African Development Review* 43 (3) (2008) 247-274.
- Neely, A., *Business performance measurement: theory and practice*, Cambridge University Press, (2002), Cambridge.
- Neely, A.; Adams, C.; Kennerley, M., *The Performance Prism: The Scorecard for Measuring and Managing Business Success*, (2002), Financial Times, Prentice-Hall, London. 20(4):986–1014.
- Nunnally, J.C., *Psychometric Theory*, New York: McGraw-Hill, (1978).
- Orlitzky M., Does firm size confound the relationship between corporate social performance and firm financial performance? *Journal of Business Ethics* (2001), 33(2): 167–180.
- Porter, M.E. , *Competitive advantage – creating a sustaining superior performance*, The Free Press, New York. (1985).
- Saha, M.; Darnton, G., Green companies or green conpanies: Are companies really green, or are they pretending to be? *Business and Society Review* 110 (2) (2005) 117-157.
- Schaltegger, S.; Synnsetvedt, T., 'The link between green and economic success', *Journal of Environmental Management*, (2002), Vol. 65, No. 4, pp.339–346.
- Schermelleh-Engel, K.; Moosbrugger - Müller, H., Evaluating the fit of structural equation models: tests of significance and descriptive goodness-of-fit measures, *Methods of Psychological Research Online* (2003), Vol.8, No.2, pp. 23-74
- Shrivastava, P., The role of corporations in achieving ecological sustainability. *Acad Manag Rev*, (1995) 20(4):936–960.
- Silptheep, T., Green value chain: The originator of sustainable competitive advantage of ISO 14001 certified manufacturing companies in Thailand, in: *The 2nd International Conference on Logistics and Transports*, Queenstown, New Zealand, 2010.
- Sitkin, A., *Principles of ecology and management: International challenges for Future Practitioners*. Goodfellow Publishers Limited, Westminster, MD, USA, 2011.
- Škrinjar, R.; Vesna B.V.; Mojca, I.Š., The impact of business process orientation on financial and non- financial performance, *Business Process Management Journal*, (2008) , Vol. 14 Issue: 5, pp.738-754.
- Solvang, W.D.; Roman, E.; Deng, Z.; Solvang, B., A framework for holistic greening of value chains, *Knowledge Enterprise: Intelligent Strategies in Product Design, Manufacturing, and Management*, (2006).
- Starik, M.; Rands, G.P., Weaving an integrated web: Multilevel and multisystem perspectives of ecologically sustainable organizations. *Academy of Management Review*, (1995). 20, 908-935.
- Tan, J.; Zailani, S., Green value chain in the context of sustainability development and sustainable competitive advantage: A conceptual framework, *International Journal of Business Insight & Transformation* (2010) 41-50.
- Tan, K.C., Implementing ISO 14001: Is it beneficial for firms in newly industrialized Malaysia? *Journal of Cleaner Production*, 13, (2005) 377-404.
- Trotman, K.T.; Bradley, G.W., Associations between social responsibility disclosure and characteristics of companies, *Accounting, Organizations and Society*, (1981), vol. 6, issue 4, 355-362.
- Venkatraman, N.; Ramanujam, V., Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, (1986), 11(4): 801–814.
- Yang, M. G. ; Hong, P. ; Modi, S. B., Impact of lean manufacturing and environmental management on business performance: An empirical study of manufacturing firms. *International Journal of Production Economics*, (2011) , Vol. 129 (2), 251–261. 37. Rao, D.; Holt, D., Green supply chains lead to competitiveness and economic performance?, *International Journal of Operations & Production Management* 25 (9) (2005) 898-916.
- Yulhasri, S.H.; Jin, T.T., Green value chain initiatives: Sustainable development view of antecedent and competitive advantage view of outcome, in: *The 2nd International Conference on Logistics and Transports*, Queenstown, New Zealand, 2010.



The relationship between high school students' identity functions and the sense of belonging at school

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Abstract

The aim of this study is to determine the relationship between high school students' identity functions and their views on their sense of belonging at school. The study group of the research, which is a relational screening model, consists of 430 students studying at high schools in Akçakoca district of Düzce province in 2018-2019. Identity Functions Scale and Sense of Belonging at School Scale were used as data collection tools in this study. According to the results of the study, it was found that high school students' sense of belonging to school and identity functions were above average and there was a moderate relationship between their identity functions and their views about their sense of belonging to the school. Based on the results of the study, it is suggested that necessary arrangements can be made for the students to find the support they need in the process of identity acquisition in schools, and measures can be taken for better understanding of the expectations of the students in order to increase the sense of belonging to the school and to reduce the feelings of rejection.

Keywords: Identity functions, belonging to the school, high school students

Introduction

Adolescence, which is one of the developmental stages of a human being, is the most turbulent, challenging and vital process of life and reaches its peak in almost every issue. In addition to all their physical changes and developments, adolescents sometimes compare their feelings with how they appear from the eyes of others overly and with great curiosity or engage in the question of how to wrap themselves up to the roles of individuals they idealize (Erikson, 1968). This quest can be expressed as a search for identity because the person draws a map of behavior and attitude with the answers s/he finds. Every individual makes conscious or unconscious efforts to obtain an identity. The search for meaning and identity, which can last a lifetime, dominates especially adolescence. In this period, developing the perception of identity and seeking answers to the questions of who I am and what I will become, which are considered as the most important tasks of the adolescent individual, are reflected in all the behaviors and attitudes of the young minds (Atkinson, Atkinson, Smith, & Nolen-Hoeksema, 2002). This process, which is experienced by young individuals, is also defined as identity development, acquisition, formation or confusion, and it progresses smoothly in some adolescents while it continues with serious problems in others (Demir, Dereboy, & Dereboy, 2009). Possible problems that may occur in the process are likely to appear more severely in the future stages of individuals' lives. The concepts of self and identity are frequently interchangeable and related phenomena and individual's perception of identity is directly and highly correlated with personality traits (Lounsbury, Levy, Leong, & Gibson, 2007) and have a functional role in expressing identity, as well as other factors contributing to identity acquisition (Costa & McCrae, 1994). While trying to maintain consistency and continuity in his / her self through roles, personality traits and many other influences throughout his / her life, the individual acquires an identity related to the patterns of his / her social relationships, social status, career choice, the perspective of life and other thoughts (Oral, 2012). In this context, the individual's perception of self and identity can be considered as two interdependent concepts that affect her/him throughout her/his life and are also influenced by the individual and her/his social environment.



The phenomenon of identity has been studied by a wide range of disciplines and has been expressed by psychologists, psychiatrists, and sociologists as the main means of understanding self and personality (Adams & Marshall, 1996). Identity is defined as a set of characteristics that determine what or who the person is (English Oxford Living Dictionaries, 2018) or it is defined as the symptoms, qualities, and characteristics that are unique to wo/man as a social being, and the conditions that make a person a certain person, all of the characteristics related to his personality (TDK, 2018). All definitions of identity, which are considered as a conceptual framework that adds direction, meaning, and purpose to life (Berzonsky, 2005), are related to the effort to make sense of one's existence. Identity is the consciousness that enables the person to act with a sense of purpose and direction in his / her life with the perception of internal consistency and continuity in time and space (Kroger, 2017). On the other hand, personal identity is a perception of sameness and continuity based on the individual's past and future expectations (Erikson, 1968). The development of a healthy personal identity makes people invulnerable to many clinical signs or problems throughout their lives (Verschuere, Rassart, Claes, Moons, & Luyckx, 2017).

Erikson, who directed the identity studies in the literature, spread the personal development of the individual to his/her whole life and developed a psychosocial approach to explain the concept of identity (Berzonsky, 2005) and he studied identity in a biological, psychological and social cognitive structure and he was inspired by previous psychoanalytic approaches (Kroger, 2008). The psychosocial development stages of Erikson include the classification of the processes of change that an individual has undergone in his life from birth to death. Hierarchical classification, the 8-step process of psychosocial development, refers to the change and development of the human being from birth to old age. In each development process, in every step where opposing expressions are used, there is a task belonging to that period and the result that occurs in case of failure of the task (Demir, 2011b). In this development process, the 5th step is expressed as identity (role) confusion versus identity acquisition and it covers the age range of 12-18 years to which the adolescence belongs (Erikson, 1968). Adolescents who go through this process healthfully have completed their identity acquisition process successfully by having consistent perceptions of who they are and what they will be (Arslan & Ari, 2008). The reason for the intense perception of identity seeking, especially in adolescence, is that physical and cognitive changes and decision-making mechanisms' becoming active (Atak, 2010). However, an individual who has a perception of identity can experience development and change in his / her identity during adulthood (Kroger, 2017). Arnett (2000), for example, stated that the process of identity acquisition was effective especially in the emerging adulthood (age range 18-25) with the theory he put forward about 50 years after Erikson and stated that adolescence plays an important role in this process. In summary, it can be said that an individual's search for identity is an endless process and therefore it continues to exist as an entity questioning the phenomenon of identity and self throughout his life.

The phenomenon of identity, which has been studied by many theorists, has been shaped in particular by Marcia's identity status. According to Marcia (2002), identity is an internal self-structuring and a dynamic formation of one's characteristics, abilities, values, and past. For Marcia, who puts 4 different identity statuses based on the dimensions of attachment and discovery, the acquisition of identity is completed by having a status, but then transitions can occur between the statuses (Atak, 2011). These identity statuses are examined under four headings: Identity diffusion, identity foreclosure, identity moratorium and identity achievement (Verschuere, Rassart, Claes, Moons, & Luyckx, 2017). Finding the identity of an individual at the end of a critical process ensures that he/she has an identity achievement, whereas the fact that he/she is in a crisis and postpones decision-making indicates that he/she has identity moratorium. While the identity status of individuals based on the values of others in the process of identity foreclosure, the indecisiveness and indifference of one's identity after the crisis shows his identity diffusion (Marcia, 1993). According to Marcia's approach to identity acquisition, one tries to reach a conclusion by weighing and questioning different alternatives of identity before making decisions about values, beliefs, and aims. S/He will then make a choice about the domain of the identity and start



implementing his/her choice (Žukauskienė, Truskauskaitė-Kunevičienė, Kaniušonytė, & Crocetti, 2018). In this context, adolescents can find different alternatives in order to make sense of identity choices in line with their abilities and goals and reflect them to their own commitment (Marcia, 1966).

Identity Functions

The process of identity acquisition of an individual is very important because it has consequences that affect the whole life and other people. In other words, the fact that an individual who has got a successful identity acquisition feels at home in his body (Erikson, 1968) and will make a direct difference not only in him/herself but also in his/her environment. Among the new approaches and models that support and expand Erikson's theory of identity acquisition, the Identity Functions Model, developed by Adams & Marshall (1996), which focuses on the outcomes of identity acquisition, is particularly striking; because, while other models focus on the process, identity functions give importance to the results of the acquisition and the values it adds to the individual (Demir, 2011a). The identity functions model provides a variety of psychological functions for individuals (Morsünbül & Uçar, 2017) and creates an internal system (Adams & Marshall, 1996).

Identity functions model offers 5 basic functions (Adams & Marshall, 1996; Serafini, 2000; Demir, 2011a):

- 1- Structure: Structure is an individual's understanding of who he is and recognizing himself. Self-understanding is expressed as the highest level of identity acquisition status. Thanks to structure function, one can minimize both physical and psychological concerns about himself/herself.
- 2- Aim: The aim is to give the person a sense of direction and meaning through various ties, values, and aims. The goal function allows the individual to be goal-oriented, to increase motivation and to be more successful in social relations.
- 3- Sense of individual control: Sense of self-control increases the sense of control and self-confidence that allows the person to express him/herself with a strong and independent will, reduces feelings such as embarrassment that estranges people from social life and strengthens the sense of autonomy.
- 4- Harmony: Harmony is the consistency between the feelings of harmony, values, beliefs, and thoughts that occur when one feels positive feelings towards himself. The harmony function ensures that the identity that the individual feels and lives / exhibits is in harmony.
- 5- Future orientation: Future orientation increases the level of awareness of one's future and provides a link between the present and the future. The future orientation gives the personal courage and self-confidence in the assessment of possible alternatives and provides the power to realize their potential in the process of self-realization and career planning.

Identity functions summarize Erikson's successful and healthy identity development on the road to successful identity acquisition. These functions are different from other theories about identity because while others focus on the acquisition process of identity, identity functions emphasize results and draw attention to the positive traces of healthy identity acquisition in the individual (Crocetti, Sica, Schwartz, Serafini, & Meeus, 2013). Successful identity acquisition is shaped by the discovery/research and determination/attachment processes of the adolescent (Erikson, 1968) and in the shaping of identity, the identity of the person is constantly subjected to the process of change and development under the influence of many different variables (Atak, 2011). In this context, it is certain that there are social effects that affect and shape the identity gains of adolescents. It is possible to say that the schools where adolescents spend most of their time are effective in the process of identity acquisition. At this point, the importance of the phenomenon of social identity emerges.

The self is not an autonomous psychological entity as a product of social interaction; on the contrary, it is rather a complex social structure (Hogg, Terry, & White, 1995). Within this structure, the self-perception of the individual, in other words, his / her perception of his / her identity, is related to his / her knowledge of the group



he/she belongs to, the values he/she imposes and the emotional meanings (Taifel, 1982). The individual has the need for belonging, and this need plays a decisive role in the development of both his personal and social identity (Kağıtçıbaşı & Cemalcılar, 2017; Alptekin, 2011). It is thought that a sense of belonging at school is influential on identity gains and functions, especially considering the fact that adolescents appreciate other people's perspective and have belonging needs in the construction of identity highly.

The Sense of Belonging at School

All human beings have an inner need to motivationally belong. As long as one belongs to someone or something, he/she can establish continuous, healthy and positive social relations (Baumeister & Leary, 1995). Sense of belonging is an individual's need to communicate with other people and acquire group identity (Lam, Chen, Zhang, & Liang, 2015). Belonging is not just about being inside or outside a group; it also includes the development of an individual's personal and social identity (Mucchielli, 1980 as cited in St-Amand, Girard, & Smith, 2017). Since the process of identity acquisition requires examination, questioning and decision-making experiences (Atak, 2011), it can be said that people invest in both their personal and social identities when they feel like members of the group they desire. Since schools are the most basic and first place of socialization in the construction of the social system, they can be defined as the environments that children and young people are expected to meet the needs of belonging.

Approaching schools as ecological systems consisting of personal relationships and cultural structures provides a better understanding of the dynamics of learning, education, student adaptation and subjective well-being, and the school environment provides the opportunity for most children and young people to communicate independently of their families and plays an important role in their psychological and intellectual development (Cemalcılar, 2010). When young people who spend the majority of their time in schools feel as part of their school life and feel peaceful, happy and safe, they will be more dependent on both education and school (Sarı, 2013). The feeling of belonging to social environments such as schools is more than adapting there; it means the feeling of being safe and having emotional commitment obtained by valuing and appreciating the environment (Hamm & Faircloth, 2005). It is known that the students who are accepted in their schools and who feel that they belong to their schools have lower negative affective experiences such as helplessness, exhaustion, boredom, and depression while they have higher academic achievement (Lam, Chen, Zhang ve Liang, 2015; Cemalcılar, 2010; Anderman, 2003). On the other hand, the tendency of students with a sense of school commitment towards risky behaviors is determined to be lower (Resnick, ve diğerleri, 1997). In other words, it is stated that the psychosocial development levels of the students in the academically risky group are directly proportional to their sense of belonging and self-esteem. (McMaken, 2000; as cited in Özgüngör & Kapıkıran, 2011).

The concept of belonging to school concerns the student's feeling as a psychological member of the school or the classroom (Goodenow & Grady, 1993), personal acceptance and respect, participation in activities, being seen by teachers and other stakeholders as part of the school, and the importance of his/her presence in decision-making system (Dukynaitė & Dudaitė, 2017; Baumeister & Leary, 1995; Sarı, 2013). There are also social factors such as academic factors that affect the student's commitment to school; in other words, the student associates his / her perceptions of the social structure of the school and his/her place in that structure with feelings of commitment to the school (Anderman, 2003).

In addition to the school culture and climate that affect the student's commitment to school, the relationship established with peers, teachers and school management is influential in the existing interpersonal network (Cemalcılar, 2010). It is seen that the students who receive social support in these relationships increase their academic success as well as their commitment to school and education (Cham, Hughes, West, & Im, 2014). With Social support, acceptance from peers, teachers, and school, adolescents who lack family ownership and acceptance will support their self-esteem which will increase their commitment to the school (Dukynaitė &



Dudaitè, 2017). Friendship provides the ability to cope with the social ecology of high school and provides a secure self-foundation for young people. Through these relationships, individuals feel both the sense of belonging to school while completing their identity development (Hamm & Faircloth, 2005). Another positive outcome of the sense of belonging to school is that adolescents develop positive and hopeful expectations for the future (Günalan, 2018). As a result, improving the sense of belonging of individuals who go through quite complex physical and psychological processes in adolescence to their schools provides multiple benefits.

On the other hand, if the student does not feel himself/herself belong to the school, his / her experience or perception is expressed as rejection (Sarı, 2015). Alptekin (2011) expresses the rejection phenomenon by the fact that whether there is a previous relationship between the unaccepted person and the rejecting person or community and the state of belonging that the person felt before. In other words, the unilateral suspension of relations in which there is initially restricted or temporary communication is expressed as rejection.

While acceptance at different levels of relationship bond includes high relationship value and importance for each individual, rejection refers to a trivial and low-value relationship and the responses of individuals to acceptance or rejection are of the degree of value given to the relationship (Blackhart, Nelson, Knowles, & Baumeister, 2009). However, the emotional and behavioral reactions of the person rejected by the group or people are generally negative and appear as bullying, discontinuation in education and violence tendencies especially in adolescent individuals (Arıkan, 2015). While the students' feeling of belonging to the school provides them with the right ties, goals, and values while providing them a healthy way to get their education, it also increases the development of self-confidence and the level of awareness towards their future. In other words, the sense of belonging to the school and the basic functions of identity functions are seen to be related. As a result, the acceptance of the student's feeling of belonging to school will not only increase his / her academic success, increase his / her motivation and ensure his / her attendance, it can also be said that it will leave positive traces in psychological and identity development and will be beneficial for self-development. It is thought that the ultimate aim of schools is to make students' feelings about the school positive in order to educate individuals who have a strong identity and self-perception.

The Aim of the Paper

This paper aimed to identify the relationships between high school students' views on identity functions and the sense of belonging at school. With this general aim in mind, answers to the following questions were sought:

1. What is the level of high school students' views on identity functions and sense of belonging to school?
2. Is there a significant relationship between high school students' identity functions and their views on school belonging feelings?

Method

Research Model

The study utilized a relational survey model. According to Karasar (2013), the relational survey model aims at determining the existence and level of covariance between two or more variables and if the status of one of the variables is known rather than the cause-and-effect relationship, the relationships found through screening can yield significant results in predicting the results of the other. With this model, the relationship between high school students' identity functions and their feelings about belonging to school was analyzed by correlation.

Working Group

In the 2018-2019 academic year, 430 students attending 2 Anatolian High Schools and the Social Sciences High School in the district of Akçakoca in Düzce participated in the study. 307 of the students are students in Anatolian High School and 123 of them are in Social Sciences High School. According to personal variables,



203 students were female and 227 were male; 116 of them attended the 9th grade, 105 of them attended the 10th grade, 104 of them attended the 11th grade and 104 of them were in the 12th grade at the time of the study.

Data Collection Tools

Personal information form, Identity Functions Scale and Sense of Belonging to School Scale were used to reach the personal information of the students.

Identity Functions Scale

The Identity Functions Scale developed by Serafini, Maitland, and Adams (2006) and validated by Demir (2011a) consists of 15 items and 5 sub-dimensions: Structure, Harmony, Purpose, Future and Control. The 5-point Likert type scale is rated with a range from “completely agree” to “completely disagree”. The Cronbach Alpha values for the reliability analysis were found as follows: .70 in structure, .76 in harmony, .80 in aim, .75 in future and .77 in control dimension. The five sub-dimensions of the scale are calculated by adding the item scores of each dimension. In this study, Cronbach Alpha coefficients were as follows: .56 in structure, .70 in harmony, .78 in aim, .72 in future, .61 in control dimension and .88 in total. However, structure and control sub-dimensions were not included in the study because Cronbach Alpha coefficients were lower than accepted values; after subtracting these dimensions, internal reliability coefficient was found to be .86. The mean scores of the sub-dimensions of the scale and the level of characteristics of the dimensions included in the individuals are proportional.

Sense of Belonging to School Scale

Developed by Goodenow C. (1993), and validated by Sarı in Turkish (2015), the Sense of Belonging to School Scale consists of 18 items and 2 sub-dimensions of school attachment and sense of rejection. The 5-point Likert type scale is rated with a range from “completely agree” to “completely disagree”. The Cronbach Alpha values were found as follows: .84 in school attachment sub-dimension, .78 in sense of rejection sub-dimension, and .84 in total. In this study, Cronbach Alpha coefficients were as follows: .85 in school attachment sub-dimension, .72 in sense of rejection sub-dimension, and .88 in total. The evaluation of the scale is based on the score ranges used in Likert type scales as Never (1): 1.00–1.80, Occasionally (2) 1.81–2.60, Sometimes (3): 2.61–3.40, Often (4): 3.40–4.20, Always (5): 4.21–5.00. The general values of the scale and the average values of the scores obtained from the sub-dimensions are directly proportional to the degree of sense of belonging to the school.

Data Analysis

The data were analyzed using the SPSS for Windows 22.0 program. The normalcy of data distribution was examined by a Kolmogorov-Smirnov test to identify the analysis that will be undertaken before analyzing the data according to the sub-problems. According to the results of the analysis, it was found that not all variables showed normal distribution ($p < .05$) and therefore non-parametric analyses were used in this study. According to this, percentage and frequency were used for personal variables, standard deviation and mean were used to determine students' identity functions and sense of belonging levels to school and Correlation analysis (Spearman's Rho) was used to determine the relationship between identity functions and sense of belonging to school. The level of significance was found to be .05.

Findings and discussion

Students' Opinions about Identity Functions

Table 1: Students' Opinions about Identity Functions

		N	$\bar{X}$	Ss
Identity	Harmony	430	3.99	.7378
	Purpose	430	3.96	.8486



Function	Future	430	3.66	.8720
Scale	Total Scale	430	3.87	.7036

According to Table 1, in terms of students' views on identity functions; the mean of the students ($n = 430$) was found to be $\bar{X} = 3.99$ in the harmony dimension, $\bar{X} = 3.96$ in the purpose dimension, $\bar{X} = 3.66$ in the future dimension and $\bar{X} = 3.87$ in the total scale. According to these findings, it is seen that the highest average in the harmony sub-dimension with $\bar{X} = 3.99$ with "often". The lowest average is again relatively high with $\bar{X} = 3.66$ in the future sub-dimension. The level of identity functions of the students was high with $\bar{X} = 3.87$.

When the findings obtained were examined, it can be interpreted that high school students had a high level of opinion in all scales and sub-dimensions, that they had positive impression and emotion towards themselves, that they were free from confusion between their beliefs, values, and behaviors, and that they had a significant cognitive level towards their goals and a certain level of awareness for their future. Relatively low-level average in the future sub-dimension can be attributed to the impact of the educational process. High school students who are on the eve of important exams to shape the rest of their lives may be perceived as normal if they are concerned or confused about this topic. Given the importance of adolescence in the process of identity construction, these findings can be considered as positive and promising results. Because today's young people who are in harmony with themselves and their surroundings, who have a certain purpose and a set of values and who consciously look forward, point to the existence of adults of tomorrow who have successfully developed the identity acquisition.

Students' opinions about Sense of Belonging to School

Table 2: Students' Opinions about Sense of Belonging to School

		N	$\bar{X}$	Ss
	School attachment	430	3.68	.6586
Sense of Belonging to School Scale	Sense of rejection	430	3.70	.8711
	Total Scale	430	3.38	.6606

According to Table 2, in terms of students' views on the sense of belonging to school; the mean values of students ($n = 430$) were found to be $\bar{X} = 3.68$ in the school attachment sub-dimension, $\bar{X} = 3.70$ in the rejection sub-dimension, and $\bar{X} = 3.38$ in the total scale. In the light of the findings, it was seen that the highest mean value was in rejection sub-dimension ($\bar{X} = 3.70$) while the lowest mean indicates the finding of the total scale ($\bar{X} = 3.38$). All of the averages are moderate and they seem to be close to each other.

Although the findings obtained seem to be contradictory especially in the sub-dimensions, it can be said that the scale is gaining meaning when looking at the total scale. It is seen that high school students feel rejected at same the rate they feel attached to the school and it is remarkable that their sense of belonging to the school is below the desired level. These findings almost correspond to the results obtained in the literature (Arıkan, 2015; Goodenow & Grady, 1993; Nichols, 2008; Sarı & Özgök, 2014). In this respect, it can be said that the students of the new century have a contradictory and skeptical perspective about the sense of belonging to the school. It can be thought that the fact that the school is the only address that has access to information has changed and that the expectations of young people from the concept of school have been seriously transformed. In other words, it can be stated that old schools do not give today's students the feeling of being at home enough.

The relationship between students' views on identity functions and their sense of belonging to the school

Table 3: The relationship between students' views on identity functions and their sense of belonging to the school



Scales		Harmony	Purpose	Future	Identity Functions Total
Attachment to School	r	,362**	,376**	,385**	,438**
	p	,000	,000	,000	,000
	N	430	430	430	430
Rejection	r	,205**	,294**	,200**	,280**
	p	,000	,000	,000	,000
	N	430	430	430	430
Total Belonging to School	r	,340**	,383**	,341**	,423**
	p	,000	,000	,000	,000
	N	430	430	430	430

Table 3 shows the Spearman Rho coefficients related to the correlation analysis conducted to determine the relationship between the levels of identity functions of the students and the sense of the students about belonging to the school. When Table 3 is examined, it is seen that there are moderate and low-level relationships between the identity function levels of students and their emotions of belonging to school both in the total scale and between the sub-dimensions. Büyüköztürk (2012) defines the correlation coefficient to be between 0.70-1.00 as high value, between 0.70-0.30 as medium and between 0.30-0.00 as low-level correlation. The medium level of relationship between school commitment total score and identity functions total scale is striking. Increasing students' sense of belonging to school can be expressed as an indicator of the development of identity functions in a healthy way. Similarly, it can be said that students' sense of belonging increases with a high level of identity functions that focus on the results of the process of identity acquisition. In this respect, it can be concluded that school feeling has a positive effect on not only the academic performance of the student but also the other elements of his/her life and the students who try to get to know and position themselves in society have positive self-affections.

The fact that the school commitment sub-dimension is highly correlated with the whole of the Identity Functions Scale and all sub-dimensions indicates that students' sense of school commitment increases with their identity functions in direct proportion and it draws attention to the importance of having a sense of belonging of students in the periods of identity development. The importance of the values gained to the individual, which is the focal point of identity functions, increases with belonging to the school and this may mean that the school makes the right approach and contribution to students' individual development. High school education has an important place in the life of young people as a process in which students have the opportunity to socialize after the family environment. It can be stated that he/she will have healthy identity functions in the environment in which he/she belongs, which is promising for the future. Relatively low relationships in the rejection sub-dimension can be considered as reasonable considering the other sub-dimension and scale. Then students who feel rejected in school will have more difficulty in structuring their self-perception and identity functions will not develop as desired. In this context, the student creates an image for himself with the impressions he has received from the students' environment and it is inevitable that negative effects will influence this image. For this reason, it can be stated that the feeling of rejection of students has an important place in the identity function and the student will develop his / her critical point of view.

Conclusion and Recommendations

The development of identity, which is known as the most critical stage in the life of the individual, accelerates the development of identity, and the identity functions that arise as a result of this development have importance to affect both himself and his environment throughout life. The young individual will become a candidate for



having a healthy adulthood by recognizing his / her perception and self and having positive feelings towards them, acquiring values that can give direction to his / her life, being compatible between his / her self and his / her identity and having the courage, self-confidence and awareness towards the future. However, disruptions in this process may cause traces that will affect the lives of young people.

Young people enter the social environments that leave the most traces of them at school. The school is not only an educational institution; it also has an impact on the developmental processes of the individual. Students have positive feelings about their self and identity in the environments in which they feel being accepted and approved. In this context, the student's sense of belonging to the school and the acquisition of identity functions correctly can be seen as an interactive process.

Based on the research findings, it can be said that high school students' sense of belonging to school and identity functions are above average. In line with these results, it can be stated that students' perceptions about their self are at the forefront in their identity functions, just like in the process of gaining an identity, and that feeling of belonging to school is related to both personal variables and the way of perceiving the school.

The research findings highlighting the importance of school experiences, which is one of the important factors that make young people, the guarantee of our future, become healthier, coherent, self-confident and happy adults are considered important for us to understand their identity functions as well as their perspectives on life and school.

Based on the results of the research, the following recommendations were developed:

- Necessary arrangements can be made for the students in order to find the support they need in identity acquisition processes in schools.
- In order to increase students' sense of belonging to the school and to reduce their feelings of rejection, measures can be taken by better understanding their expectations from the school.
- This research can be carried out in public and private education institutions in different provinces, and in-depth analysis of students' views on the subject can be done through qualitative and mixed studies.

Kaynakça

- Adams, G. R., & Marshall, S. K. (1996). A developmental social psychology of identity: understanding the person-in-context. *Journal of Adolescence*, (19), 429-442.
- Alptekin, D. (2011). *Toplumsal aidiyet ve gençlik: üniversite gençliğinin aidiyeti üzerine Sosyolojik Bir Araştırma, Doktora Tezi*. Konya: Selçuk Üniversitesi Sosyal Bilimler Enstitüsü.
- Anderman, L. H. (2003). Academic and Social Perceptions as Predictors of Change in Middle School Students' Sense of School Belonging. *The Journal of Experimental Education*, 72(1), 5-22.
- ARIKAN, G. (2015). *Spor lisesi ve anadolu lisesi öğrencilerinde okula aidiyet duygusu ve okul yaşam kalitesinin incelenmesi: güneydoğu anadolu bölgesi örneği, Doktora Tezi*. Adana: Çukurova Üniversitesi Sağlık Bilimleri Enstitüsü.
- Arnett, J. J. (2000). Emerging Adulthood A Theory of Development From the Late Teens Through the Twenties. *May 2000 • American Psychologist*, 55(5), 469-480. doi:10.1037//0003-066X.55.5.469
- Arslan, E., & Arı, R. (2008). Erikson'un psikososyal gelişim dönemleri ölçeğinin türkçe'ye uyarlama, güvenilirlik ve geçerlik çalışması. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (19), 53-60.
- Atak, H. (2010). *Yetişkinliğe geçişte kimlik biçimlenmesi ve eylemlilik: bireyleşme sürecinde iki gelişimsel kaynak; Doktora Tezi*. Ankara: Ankara Üniversitesi Eğitim Bilimleri Enstitüsü.
- Atak, H. (2011). Kimlik Gelişimi ve Kimlik Biçimlenmesi: Kuramsal Bir Değerlendirme. *Psikiyatride Güncel Yaklaşımlar-Current Approaches in Psychiatry*, 3(1), 163-213.



- Atkinson, R. L., Atkinson, R. C., Smith, E. E., & Nolen-Hoeksema, S. (2002). *Psikolojiye Giriş (Hilgard's Introduction to Psychology)* (2. b.). (Y. Alagon, Çev.) Ankara: Arkadaş Yayınları.
- BALKAYA, A., & CEYHAN, E. (2007). Lise Öğrencilerinin Kimlik Duygusu Kazanım Düzeylerinin Bazı Değişkenler Açısından İncelenmesi. *Sosyal Bilimler Dergisi*, (1), 433-446.
- Baumeister, R., & Leary, M. (1995). The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. *Psychological Bulletin*, 117(3), 497-529. doi:10.1037/0033-2909.117.3.497
- Berzonsky, M. D. (2005). Identity processing style and self-definition: effects of a priming manipulation. *Polish Psychological Bulletin*, 36(3), 137-143.
- Blackhart, G. C., Nelson, B. C., Knowles, M. L., & Baumeister, R. F. (2009). Rejection elicits emotional reactions but neither causes immediate distress nor lowers self-esteem: A meta-analytic review of 192 studies on social exclusion. *Personality and Social Psychology Review*, (13), 269-309.
- Büyüköztürk, Ş. (2012). *Veri Analizi El Kitabı*. Ankara: Pegem Akademi.
- Cemalcılar, Z. (2010). Schools as Socialisation Contexts: Understanding the Impact of School Climate Factors on Students' Sense of School Belonging. *Applied Psychology: An International Review*, 59(2), 243-272. doi:10.1111/j.1464-0597.2009.00389.x
- Cham, H., Hughes, J. N., West, S. G., & Im, M. H. (2014). Assessment of Adolescents' Motivation for Educational Attainment. *Psychological Assessment. Advance online publication*. . <http://dx.doi.org/10.1037/a0036213> adresinden alındı
- Costa, P., & McCrae, R. (1994). Stability and change in personality from adolescence through adulthood. C. F. Jr., G. A. Kohnstamm, & R. P. Martin (Dü) içinde, *The developing structure of temperament and personality from infancy to adulthood Hillsdale, NJ: Lawrence* (s. 139-155). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Crocetti, E., Sica, L. S., Schwartz, S. J., Serafini, T., & Meeus, W. (2013). Identity styles, dimensions, statuses, and functions: Making connections among identity conceptualizations. *Revue Européenne de Psychologie Appliquée*(63), 1-13. doi:10.1016/j.erap.2012.09.001
- Demir, H. K., Dereboy, F., & Dereboy, Ç. (2009). Gençlerde Kimlik Bocalaması ve Psikopatoloji. *Türk Psikiyatri Dergisi*, 20(3), 227-235.
- Demir, İ. (2011a). Kimlik İşlevleri Ölçeği: Türkçe Geçerlik ve Güvenirliği. *Kuram ve Uygulamada Eğitim Bilimleri*, 11(2), 571-586.
- Demir, İ. (2011b). Gençlerde yaşam doyumu ile kimlik işlevleri arasındaki ilişkilerin İncelenmesi. *Elektronik Sosyal Bilimler Dergisi*, 10(38), 099-113.
- Dukynaitė, R., & Dudaitė, J. (2017). Influence of School Factors on Students' Sense of School Belonging. *The New Educational Review*, 47(1), 39-52. doi:10.15804/tner.2017.47.1.03
- English Oxford Living Dictionaries*. (2018, Aralık 1). <https://en.oxforddictionaries.com/definition/identity> adresinden alındı
- Erikson, E. H. (1968). *Identity, youth and crisis*. New York: W. W. Norton Company.
- Erikson, E. H. (1994). *Identity and the life cycle*. New York: WW Norton & Company.
- Goodenow, C. (1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools*(30), 79-90.
- Goodenow, C., & Grady, K. E. (1993). The Relationship of school belonging and friends' values to academic motivation among urban adolescent students. *The Journal of Experimental Education*, 62(1), 60-71.
- Günelan, N. (2018). *Ortaokul öğrencilerinin okul yaşam kalitesini, okula aidiyet duygusunu ve okul iklimini neler etkilemektedir? Yüksek Lisans Tezi*. Aydın: Adnan Menderes Üniversitesi Sosyal Bilimler Enstitüsü.
- Hamm, J. V., & Faircloth, B. S. (2005). The Role of Friendship in Adolescents' Sense of School Belonging. *New Directions For Child And Adolescent Development*(107), 61-78.
- Hogg, M. A., Terry, D. J., & White, K. M. (1995). A Tale of Two Theories: A Critical Comparison of Identity Theory with Social Identity Theory. *Social Psychology Quarterly*, 58(4), 255-269.



- Kağıtçıbaşı, Ç., & Cemalcılar, Z. (2017). *Dünden Bugüne İnsan ve İnsanlar Sosyal Psikolojiye giriş* (20. b.). İstanbul: Evrim Yayınevi.
- Karasar, N. (2013). *Bilimsel araştırma yöntemi*. Ankara: Nobel Akademi.
- Kroger, J. (2008). Identity Development During Adolescence. G. R. Adams, & M. D. Berzonsky (Dü) içinde, *Blackwell Handbook of Adolescence* (s. 205-226). Blackwell Publishing Ltd. doi:10.1002/9780470756607.ch10
- Kroger, J. (2017). *Identity Development in Adolescence and Adulthood*. Aralık 1, 2018 tarihinde Oxford Research Encyclopedia of Psychology: <http://oxfordre.com/psychology/view/10.1093/acrefore/9780190236557.001.0001/acrefore-9780190236557-e-54>. adresinden alındı
- Lam, U. F., Chen, W.-W., Zhang, J., & Liang, T. (2015). It feels good to learn where I belong: School belonging, academic emotions, and academic achievement in adolescents. *School Psychology International*, 36(4), 393-409. doi:10.1177/0143034315589649
- Lounsbury, J. W., Levy, J. J., Leong, F. T., & Gibson, L. W. (2007). Identity and Personality: The Big Five and Narrow Personality Traits in Relation to Sense of Identity. *Identity: An International Journal Of Theory And Research*, 7(1), 51-70. doi:10.1080/15283480701319641
- Marcia, J. E. (1966). Development and validation of ego identity status. *Journal of Personality and Social Psychology*, 3(5), 551-558. doi:10.1037/h0023281
- Marcia, J. E. (1993). The relational roots of identity. J. Kroger (Dü.) içinde, *Discussions on ego identity* (s. 34-65). NJ England: Lawrence Erlbaum Associates.
- Marcia, J. E. (2002). Adolescence, Identity, and the Bernardone Family. *Identity: An International Journal of Theory and Research*, 2(3), 199-209. doi:10.1207/S1532706XID0203_01
- Morsünbül, Ü., & Uçar, E. (2017). Kimlik Stilleri, Süreçleri ve Statülerinin Kimlik İşlevleri ile İlişkileri. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 13(1), 25-35.
- Oral, T. (2012). *Ergenlerde kimlik statülerinin başarı amaç yönelimlerini yordamadaki rolü; Yüksek Lisans Tezi*. Denizli: Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü.
- Özgüngör, S., & Kapıkıran, N. A. (2011). Erikson'un Psikososyal Gelişim Dönemleri Ölçeklerinin Türk Kültürüne Uygunluğunun Karşılaştırmalı Olarak İncelenmesi: Ön Bulgular. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 4(36), 114-126.
- Özkan, F. (2015). *Öğrencilerin okullarının imajına ilişkin algıları ve aidiyet düzeyleri (istanbul eyüp ilçesi örneği); Yüksek Lisans Tezi*. İstanbul : İstanbul Aydın Üniversitesi Sosyal Bilimler Enstitüsü.
- Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., Jones, J., . . . Udry, J. R. (1997). Protecting Adolescents From Harm Findings From the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association*, 278(10), 823-832.
- Sarı, M. (2013). Lise Öğrencilerinde Okula Aidiyet Duygusu. *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 13(1), 147-160.
- Sarı, M. (2015). Adaptation of the Psychological Sense of School Membership Scale to Turkish. *Global Journal of Human-Social Science (G)*, 15(7).
- Sarı, M., & Özgök, A. (2014). Ortaokul Öğrencilerinde Okula Aidiyet Duygusu ve Empatik Sınıf Atmosferi Algısı. *Gaziantep University Journal of Social Sciences*, 13(2), 479-492.
- Serafini, T. E. (2000). *The construction of a scale that measures the functions of identity; Master of Science Thesis*. Ottawa, Canada: The University of Guelph The Faculty of Graduate Studies.
- Serafini, T. E., & Adams, G. R. (2002). Functions of Identity: Scale Construction and Validation. *Identity: An International Journal Of Theory And Research*, 2(4), 363-391.
- Serafini, T. E., Maitland, S. B., & Adams, G. R. (2006). The functions of identity scale: Revisions, validation and model testing. Poster session presented at the . *Biennial Meeting of the Society for Research on Adolescence*. San Francisco, California.



- Sharon L. Nichols. (2008). An exploration of students' belongingness beliefs in one middle school. *The journal of experimental education*, 76(2), 145-169.
- St-Amand, J., Girard, S., & Smith, J. (2017). Sense of Belonging at School: Defining Attributes, Determinants, and Sustaining Strategies. *IAFOR Journal of Education* , 5(2), 105-119.
- Taifel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*(33), 1-39.
- TDK. (2018, Aralık 1). Türk Dil Kurumu:
http://www.tdk.gov.tr/index.php?option=com_bts&arama=kelime&guid=TDK.GTS.5c0572f5571961.92838499 adresinden alındı
- Verschueren, M., Rassart, J., Claes, L., Moons, P., & Luyckx, K. (2017). Identity Statuses throughout Adolescence and Emerging Adulthood: A Large-Scale Study into Gender, Age, and Contextual Differences. *Psychologica Belgica*, 57(1), 32-42. doi:10.5334/pb.348
- Žukauskienė, R., Truskauskaitė-Kunevičienė, I., Kaniušonytė, G., & Crocetti, E. (2018). How do Lithuanian adolescents address identity questions? A four-wave longitudinal study on change and stability in identity styles. *European Journal of Developmental Psychology*, 15(1), 41-60. doi:10.1080/17405629.2017.1285762



Teachers' Opinions about Management of Diversity in Schools

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Abstract

The aim of the study is to determine the opinions of teachers working in secondary schools and high schools in the district of Akçakoca in Düzce about the phenomenon of diversity and the management of diversity in educational environments and to make suggestions according to the results of the research by shedding light on the possible problems that will be encountered during the management of the diversities. The study group of the research, which was conducted with qualitative research design, consists of 40 teachers working in various schools in Akçakoca during the 2017-2018 academic year. According to the results of the research, it is revealed that diversity management in schools is not at the desired level, there are not appropriate approaches to the spirit of the age and it is necessary to take important steps in order to correct this situation.

Key Words: Diversity, Diversity Management, Teacher

Introduction

Diversity and Diversity Management

Human beings are differentiated without any effort with their innate gender, race, ethnic origin, and physical characteristics and they try to both look like and differentiate from others throughout their lives, which can be explained as the effort of one's identity formation (Sürgevil, 2010). The individual catches attention with his differences rather than similarities in the effort of obtaining identity. It takes time to recognize what is similar while dissimilar ones can be distinguished easily.

Turkish Language Institution (TDK) (2018) defines “diversity” philosophically as the characteristic of natural, social and conscious based every event and phenomenon that differs from all others; diversity can also be defined as an individual or organizational diversity/variety that is innate or acquired through socialization (Saylık, Polatcan, & Saylık, 2016). Although the difference is mostly related to individuals and groups who are perceived as different or “the other” and often emerges from the understanding that gender, ethnicity or disability is a disadvantage, its meaning has changed in terms of academic, educational and administrative aspects (Morrison, Lumby, & Sood, 2006). In other words, individuals' educational level, their perspective on life and the culture they live in differentiate them. Being different is not a choice and there must be difference wherever there are people (Barutçugil, 2011). Diversity is the difference in terms of the various characteristics of individuals in general (Demirel & Özbezek, 2016); and the individual, economic, social, cultural, physical and intellectual characteristics that distinguish them from others (Kara, 2016). Based on all these definitions, it is thought that the difference is not only physical or apparent qualities but also social characteristics such as personality, culture, religious belief, sexual preference, lifestyle, ethnicity, marital status are within the definition of the difference. As a result, differences are characteristics that come with existence beyond one's choices on one hand and they defined as the characteristics acquired intentionally or by exposure through cultural and social means on the other hand.



Since people are living and working entities within groups, they carry their differences to the environment, group or organization to which they belong or where they want to belong. This complicates organizational behavior approaches. Because every person trying to gain an identity as an employee is complex and this complexity occurs differently in every individual and organizational environment. As the most important stakeholder of the organization, employees exhibit not only their professional behavior but also their individual differences in their working environments. They bring their characteristics and individual differences acquired from the social environment to the organization where they work (Atasoy, 2012). These individual differences reveal the contradiction of being a threat and wealth for the organization while maintaining its sustainability and achieving its goals. This conflict brings about the management of diversity in organizations (Memduhoğlu & Ayyürek, 2014). It would be correct to say that the impact of different individuals in the organization will be whether positive or negative is related to how it is managed.

If the profile of employees in an organization reveals differences according to demographic or other qualifications, there may be differences also in that organization (Seymen, 2006) and managing this difference requires systematic and planned, stable practices to recruit, maintain, reward and promote a heterogeneous mix of employees to the organization (Ivancevich & Gilbert, 2000). Likewise, diversity management is a multidimensional and philosophical approach that aims to maximize the performance and productivity of all employees in the organization (Memduhoğlu, 2013) and it focuses on the importance and management of outcomes rather than the cause of the difference (Linehan & Hanappi-Egger, 2006).

A group of differences can be considered as a set of values that both affect and influence the organization while simultaneously preserving its intrinsic (Schermerhorn, Osborn, & Hunt, 2000). Increasing diversity in organizations increases the problem-solving skills of the groups, provides better service to customer diversity and supports organizational creativity (Gilbert, Stead, & Ivancevich, 1999). In other words, the correct evaluation of the differences among the employees of the organization makes it easier to respond to the diversity of the target audience.

For organizations, differences have both positive and negative consequences. For example, differences are useful for working groups since they create positive value judgments, and improve the interaction of teamwork (Sürgevil, 2010). In working environments where diversity is accepted and valued, learning and creativity are encouraged and inspiring behaviors among employees increase (Memduhoğlu, 2013). The most important positive outcome of diversity management is that employees are motivated to perform independently of all physical, mental, social and emotional barriers, create a working peace, and each of them is allowed to benefit from their skills (Barutçugil, 2011). In addition, the presence of employees with different characteristics increases the value migration to the organization and provides time and effort in completing the work with different expertise of people in teamwork (Begeç, 2004). As a result, diversity management is necessary and beneficial because it is possible to make optimal use of all human resources in the organization (Aksu, 2008). On the other hand, the negative aspects of diversity management are the adverse effects of working groups on social integration and communication issues, reducing the performance of group members and reducing job satisfaction when they cause conflicts (Sürgevil, 2008). Difficulties of working with individuals with different characteristics for the same job and chaotic environment where different ideas will emerge are also among the disadvantages of diversity (Barutçugil, 2011). Another drawback of diversity management is the belief that employees are not treated equally and fairly (Ünalp, 2007). However, these negative situations do not eliminate the fact that organizations are composed of different individuals. In other words, despite all possible risks, employees should exist with their differences.

Management of Diversity in Education



As micro examples of social structure, each school has become a whole with employee differences. Although they share the same language and relatively similar culture, teachers and school administrators are different individuals who have come together to achieve the goals of the school. It is usual and customary to reflect these differences both on their professional perspectives and on their communication with their environment. While these differences should not disrupt school harmony, according to the new world approach where speed is dominant, teachers do not like to be assimilated or hide their individual characteristics and differences and expect to be accepted as they are. This leads to the need to recognize the diversity of each individual and to manage it in accordance with the school's objectives.

It is observed that the concept of diversity management in educational organizations generally focuses on the ethnicity and gender of teachers. However, the difference of the teacher is not limited to these facts; personality traits, physical traits or cultural tendencies also make them different from others (Memduhoğlu, 2013). It does not seem possible to talk about education management without taking into account the individual preferences of the teachers such as age, appearance, dress choice, religious belief, and political opinion. Leadership fiction, which is based on diversity management, will not only create respect for the different, but also positive changes in school culture and role model effects for students (Balyer & Gündüz, 2010).

The difference that exists in schools creates a rich and productive workforce which is difficult to manage. Making this diversity contributing to the school and avoiding possible problems also depends on the quality and success of the training the managers (Memduhoğlu, 2011). In this context, it is clear that the differences of the employees should be handled with seriousness in order to create a culture of peace in the school and achieve the aims of the organization. In other words, it is important to create awareness of diversity.

The purpose of this research is to determine the opinions of teachers working in secondary schools and high schools in the district of Akçakoca in Düzce province on the concept of diversity and the management of diversities in educational environments and to make suggestions according to the results of the research by shedding light on the possible problems that will be encountered during the management of the diversities.

Method of the research

This study is a case study which is one of the qualitative research types. Case study research, which is a type of pattern in qualitative research and which can be both the product and the object of the research, is a situation portrait in which the researcher collects detailed and in-depth information about the real life, the current limited situation or the multiple constrained situations within a certain time. It is a qualitative approach in which case themes are introduced (Creswell, 2016).

Working Group

The study group consisted of 40 teachers (23 female and 17 male) working in Akçakoca district of Düzce province. 33 of the teachers have 10 years of professional seniority and 7 of them have less than 10 years of seniority. 36 of the participating teachers have a bachelor's degree and 4 of them have a master's degree.

Data Collection Tool

Interview technique was used to determine the opinions of teachers towards diversity management. In the process of developing the semi-structured interview form used in the research, the related literature was searched and questions were formed in line with the conceptual framework, and expert opinions were consulted to ensure internal validity. Expert review is an important strategy to ensure validity and reliability in qualitative research. In order to increase the reliability of the research, field experts' opinions, criticisms, and feedback help to reveal the scientificness of the study from the research design process to the process of data collection, analysis and writing of the results (Yıldırım & Şimşek, 2006). The semi-structured questionnaire of the research was prepared in accordance with expert opinions and finalized and the questions were presented to the participants. Data



collected from volunteer teachers through the form was analyzed by descriptive and content analysis technique. While analyzing the opinions of the participants, the teachers were shown by coding in the form of K1, K2 in order to ensure that their identity is unclear. The common views of the teachers were shown in the tables under the themes created in line with the frequency of views, and the codes created by direct opinions were supported. Since one participant stated more than one opinion in the tables, total opinion was not given. As some of the questions posed to the participants gave similar results on similar subjects, their analyses were conducted together. In the interview form, the teachers were asked the following questions:

- 1) What does diversity mean to you? Do you think that you have some determining features that help your friends perceive you in your school? (Culture, personality, age, gender, physical appearance, etc.) What are these characteristics and how do you understand that they identify you with this difference?
- 2) How do you react to the approach of your colleagues and your school's director towards your differences? How does this situation affect you?
- 3) What are the differences that your colleagues and managers do not accept?
- 4) Do your school administrators use the differences of teachers as advantages and disadvantages? Please explain.

Findings

Table 1: The concept of diversity and teachers' opinions about the features that make them feel different

The concept of diversity	n	Features that make them feel different	n
Being unconventional	17	Personality characteristics	27
Physical and spiritual separation	16	Physical characteristics	7
Being original, out of bounds and extraordinary	15	Cultural Characteristics	5
Wealth and diversity	8	No significant difference	8
Having a different perspective	5		

When the opinions of teachers about the concept of diversity are examined in Table 1; the diversity is defined as being unconventional (n = 17), being separated from others physically and spiritually (n = 16), being original, out of bounds and extraordinary (n = 15), wealth and diversity (n = 8) and having a different perspective (n = 5). This finding shows that teachers generally have a positive perception of the phenomenon of diversity. One of the participating teachers K9 has dealt with the phenomenon of diversity in many aspects and gave a comprehensive definition as "Diversity is wealth. Everything that is identical is monotonous and boring. Diversity causes excitement and conflict. Visually different objects standing side by side look good. Therefore, every individual needs to be different, this is the necessity of being human and it is good." K23 pointed out the concept of diversity as the opposite of mediocrity by saying "The one who doesn't behave the same or who cannot be identical with the others under the same conditions can be called as different." The K19 approached the concept from a slightly different perspective. He thinks the difference is equivalent to the contradiction by saying that "In a community, the diversity is considered to be separate/contrary from the usual". These definitions coincide with the definitions made for the concept of diversity in the literature (Kara, 2016; Demirel & Özbezek, 2016; Memduhoğlu, 2011).

When the opinions of the teachers about the determinant characteristics that make them feel different were examined, the majority of the teachers (n = 27) emphasized personality traits, while 8 teachers stated that there was no significant difference. The concepts given for other defining characteristics are physical (n = 7) and cultural (n = 5) features. The fact that teachers feel that they are different from their personality traits emphasizes their differences from everyone in terms of human creation. The fact that diversity of personality traits come to



the forefront in the organizational environment can be considered as a normal result of diversity. One of the participating teachers, K21 emphasizes that he sees personality traits as determinant by saying “I think I am more prescriptive, hasty and planned than my friends. I am a person who can find practical solutions and this makes me different in school”. K8 emphasizes his/her demographic characteristics as “First of all, being a young teacher makes me feel different as a new teacher. In this way, I think that I can communicate more easily with students, but I also feel incompetent among experienced teachers.” The teacher, who perceives being young as a diversity, also states the advantage and disadvantage of this diversity and states that this difference can be an obstacle from time to time. With a critical approach to the uniformization of teachers, K28 says that “Obviously I don't feel different. I think this is a general problem in the world of education. Everybody entering the system becomes uniform after a while and this is a problem.” The lack of diversity in the organization can be considered as a negative result. Because it can be stated that the teacher who has lost his individual differences within the education system has also lost his innovative perspective in order to adapt to the system. This situation supports the opinion that diversity is necessary for the working environment.

Table 2: Teachers’ Opinions towards the Approach of Other Teachers and School Administration to Teachers’ Diversities

The approach of Other Teachers	n	The approach of School Management	n
Positive, respectful, acquiescent	30	Positive, respectful, acquiescent	16
Disturbing, modificatory	5	Negative, rejecting	13
Creating clash environment	2	Not aware of differences	11
No response	3		

Table 2 shows the teachers’ opinions about the approach of other teachers and school management towards teachers’ diversities. Although the approach of other teachers and school management to diversity are similar, it can be stated that teachers are more moderate and school administrations are more negative. Because it is seen that teachers (n = 30) show a positive approach to differences while the school administration is stated to have a negative, rejecting (n = 13) attitude or not being aware (n = 11). This situation indicates that teachers are more successful and respectful in their communication with their colleagues while their relationship is more limited to the school administration. It can be stated that managers who perceive the diversity of teachers as negative or who are not aware of this difference are weak in terms of diversity management. One of the participating teachers, K6, stated that the diversity was looked askance at, but this did not influence him by saying “The fact that I have a different worldview than others is not welcomed by teachers or administrators. We fall into conflict from time to time, but they can't change me”. The effort to remain unchanged despite the negative reaction to their diversity is having another diversity. In this case, it can be thought that some people tend to be assimilated while others do not. On the other hand, K11 states that the school administration is not acquainted with his/her true self and is not aware of his/her differences by saying “My best friends know I'm different. The school administration doesn't know me enough or doesn't realize my different characteristics because they don't make an effort for it”. This situation can be perceived as an individual's own preference or a lack of communication between the teacher and the school administrator. If a manager who should create a harmonious work environment is not efficient for recognizing the employees, it can be interpreted as a deficiency. K17 states that the differences are accepted and that he works in an institution where there is a culture of peace by stating “I work with a lot of different people at school and that's no problem for us. Our manager also very understands this issue. For our school, this situation allows us to work peacefully”. In peace-oriented organizational settings, employees are expected to create organizational harmony with their individual characteristics, which can only be achieved by recognizing diversity, respecting them and managing them correctly.

Table 3: Teachers’ Opinions about Acceptance of Individual Diversities at School



Diversity types rejected by teachers	n	Diversity types Rejected by School Administration	n
Differences incompatible with the general environment of the school and contrary to general morality	16	Any opinion that differs from the opinion of the school manager	21
Differences in political opinion	13	Differences in political opinion	16
Differences in religious belief/opinion	11	Differences disrupting school culture and contrary to general morality	12
Differences in clothes	9	Working indiscipline	10
Sarcastic, selfish, snitch and exclusionary behaviors	8	Differences in religious belief/opinion	9

Table 3 shows teachers' opinions about the acceptance of individual diversities of teachers at school. Among the most repetitive views that the teachers did not accept were differences that were incompatible with the general environment of the school, contrary to general morality (n=16), differences in political views (n=13) and religious beliefs (n=11). For example, one of the participating teachers, K18, gives an example of the general situation in schools by saying that "Differences that may be negative examples to our students or disrupt the peace of the school environment are unacceptable. Unsuitable differences, such as different sexual orientation, colloquial slang or extreme points in clothes can be disturbing". The fact that teachers are role models for students can be seen as the reason for this situation. K25, on the other hand, emphasizes the tendency of politicization in Turkish national education in the recent period and states that the differences of thought are negatively met by saying "In schools, teachers who have the opposite view of the general tendency are generally not accepted. Especially those who are politically opposed have serious problems". Since this situation is incompatible with the phenomenon of diversity management, it contradicts with the fact that the correct orientation of the diversity of thought contributes to the working environment. This is because the teacher will be autonomous to the extent that he/she can express his / her opinion within the framework of respect and thus, professional attitude behaviors will be developed. K30 states that teachers with different opinions are under pressure and criticizes standardization by stating that "To think differently from the school principal is enough reason not to be accepted. It doesn't matter if your opinion is right or logical". The school administrator can enrich and improve the perception of management by the presence of different sounds and colors rather than people who think like him/her. Therefore, disrespect or disregard for those who think differently from their own thinking can be seen as a deficiency in diversity management.

Table 4: Teachers' opinions towards school administrators' being open to teachers' diversities

	The school manager is open and respectful to differences	n	The school manager is not open and respectful to differences	n
	turns differences into an advantage	19	Does not takes the differences into consideration, goes his own way	25
Administrator	Makes assignment by considering differences	14	Does not let teachers talk about differences	21
	Differences are allowed to be spoken freely	15	Gives negative responses to differences	12

In Table 4, teachers' opinions of the school administrators about teachers' diversities are given under two themes, positive and negative. It is stated that school administrations that are open and respectful to teachers' diversities turn differences into advantages for teachers and schools (n = 19), assignments are made in this direction (n = 14), and differences are allowed to be expressed freely (n = 15). It can be said that these behaviors represent the cornerstones of diversity management in education. In a school with as many diversities as the number of employees, the differences that are turned into advantages will not only make people peaceful but will also bring organizational success. For example, K3 gave an example of this view as "Our school uses our differences as an advantage when creating work teams in the school. For example, they include teachers who speak a foreign language and have a culturally different perspective to the EU project preparation team". K1



views give an example of this situation by saying that “Our differences are occasionally used in assignments. I think this situation increases the competitive environment in the school”.

On the other hand, it was stated that administrators who are not open to and respect for teacher differences carry out the management process without considering these differences ($n = 25$), that they do not allow the expression of differences freely ($n = 25$) and that they react negatively ($n = 12$). K7, one of the participants, stated that the managers were closed to different opinions by stating that “The whole system in the school is progressing result-oriented, so the important thing is to get the job done as soon as possible. Our managers do not care much about our diversities in this process. What matters is not your differences but your individual relationship with the manager”. K13 again states that managers are closed to different opinions as “When the people are commissioned to a school, the manager wants to work with those close to his / her idea. Seems to be a criterion that we are similar to the manager, not having different skills”. K29 states that the reactions to different aspects make him uneasy by stating “We are all different and carry a wide variety of traditional structures to school. In some personal issues such as clothing, a different formation causes me to feel burnout in a professional sense. School administration is more moderate to uniform people”. Commenting on political thought, which is one of the important differences that are unacceptable and reacted, the K40 shares teachers' views that they are being pressured beyond their rejection saying that “In our school, politically different views are unfortunately digested. I don't think it's right for teachers to give political views in the professional field, but there are many situations where we have to remain silent even in our own social environments at school.”

Conclusion, Discussion, and Recommendations

Today, it is not enough for organizations to use their economic capital effectively in order to survive in the global competitive environment, but they should also use human resources correctly (Atasoy, 2012). This correct use brings the concept of diversity management with it. In the 1970s, the definition of diversity has a structure that includes minorities and women in the working profile, but today it has gone beyond simply discriminating against minorities (Keil, et al., 2007), and it involves diversity, gender, language, ethnic origin, cultural background, religious belief, education level, life, income, personality, sociocultural structure, and family responsibilities (Mercan, 2016). Schools, which are the most important examples of these social organizations, will be successful and productive to the extent that they correctly manage and direct the different employee profiles. Therefore, the management of diversities in education is not only important for educational purposes but also for organizational behavior approaches and its necessity is increasing day by day.

According to the results of the research, while the teachers generally show a moderate and respectful approach to each other's differences, school administrations can give more rigid and even repressive reactions. It can be said that teachers who experience their diversity as a problem will cause them to feel burnout both individually and professionally. Especially the presence and exclusion of teachers who feel differently in political, religious and cultural contexts can be seen as obstacles in the construction of peace in schools and in providing democratic educational processes to the students. The existence of administrators who can use the individual diversities of the teacher to the benefit of the school will have the opposite effect and will not only provide the personal happiness of the teacher, but also the pioneer of social change.

Based on the results of the study, it is proposed to keep the difference in schools on the agenda for all school stakeholders and to raise awareness of school administrations with the education of teachers and students. It is recommended that school administrators should be subjected to an audit system based on objective criteria in order to manage teachers' diversities correctly and this research should be enriched by taking the opinions of school administrators and students also.



Kaynakça

- Aksu, N. (2008). *Örgüt Kültürü Bağlamında Farklılıkların Yönetimi ve Bir Uygulama; işletme Ana Bilim Dalı Doktora Tezi*. Bursa: Uludağ Üniversitesi Sosyal Bilimler Enstitüsü.
- Atasoy, Z. (2012). *Farklılıkların Yönetimi: Üniversite Öğrencilerinin Ayrımcılık Algısının Öğrenci Başarı Düzeyine Etkisi Üzerine Bir Araştırma; Yüksek Lisans Tezi*. Karaman: Karamanoğlu Mehmetbey Üniversitesi Sosyal Bilimler Enstitüsü.
- Balyer, A., & Gündüz, Y. (2010). Yönetici Ve Öğretmenlerin Okullarında Farklılıkların Yönetimine İlişkin Algılarının İncelenmesi. *M.Ü. Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi*(32), 25-43.
- Barutçugil, İ. (2011). *Kültürler Arası Farklılıkların Yönetimi*. İstanbul: Kariyer Yayıncılık .
- Begeç, S. (2004). *Farklılıkların Yönetimi ve Genel Kurmay Başkanlığı Barış İçin Ortaklık Merkezinde Yapılan Bir Araştırma; İşletme Ana Bilim Dalı Doktora Tezi*. İstanbul: Marmara Üniversitesi Sosyal Bilimler Enstitüsü.
- Creswell, J. (2016). *Araştırma Deseni Nitel, Nicel ve Karma Yöntem Yaklaşımları*. (M. Bursal, Çev.) Ankara: Eğiten Kitap.
- Demirel, Y., & Özbezek, B. D. (2016). Örgütlerde Zenginliğin Kaynağı Olarak Farklılıkların Yönetimi: Kavramsal Bir İnceleme. *Çankırı Karatekin Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 7(1), 1-28.
- Ekiz, D. (2013). *Bilimsel Araştırma Yöntemleri*. Ankara: Anı Yayıncılık.
- Gardenswartz, L., & Rowe, A. (1994). *Diverse Teams at Work: Capitalizing on the power of Diversity*, New York: McGraw-Hill.
- Gilbert, J. A., Stead, B. A., & Ivancevich, J. M. (1999). Diversity Management: A New Organizational Paradigm. *Journal of Business Ethics*(21), 61-76.
- Hanappi-Egger, E. (2007). Gender and diversity from a management perspective: Synonyms or complements? *Journal of Organisational Transformation and Social Change*, 3(2), 121-134.
- Ivancevich, J. M., & Gilbert, J. A. (2000). Diversity Management Time for A New Approach. *Public Personnel Management*, 29(1), 75-92.
- Kara, E. (2016). *Üniversite Yönetici, Akademik Ve İdari Personelinin Farklılık Yönetimine İlişkin Görüşleri; Yüksek Lisans Tezi*. Bolu: Abant İzzet Baysal Üniversitesi Eğitim Bilimleri Enstitüsü.
- Keil, M., Amershi, B., Holmes, S., Hans Jablonski, E. L., Matoba, K., Plett, A., & Unruh, K. v. (2007). *Farklılıkların Yönetimi için El Kitabı*. Uluslararası Farklılıkların Yönetimi Derneği.
- Linehan, M., & Hanappi-Egger, E. (2006). Diversity and Diversity Management: A Comparative Advantage? H. H. Larsen, & W. Mayrhofer (Dü) içinde, *Managing Human Resources in Europe: A Thematic Approach* (s. 217-231). Routledge.
- Luthans, F. (2011). *Organizational Behavior An Evidence-Based Approach* (12. b.). New York: McGraw-Hill/Irwin.
- Memduhoğlu, H. B. (2011). Liselerde Farklılıkların Yönetimi: Bireysel Tutumlar, Örgütsel Değerler ve Yönetimsel Politikalar. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 7(2), 37-53.
- Memduhoğlu, H. B. (2011). Okullarda Farklılıkların Örgütsel Doğurguları: Bir Örnekolay İncelemesi. *On Dokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi*, 30(2), 115-138.
- Memduhoğlu, H. B. (2013). Farklılıkların Yönetimi. H. B. Memduhoğlu, & K. Yılmaz (Dü) içinde, *Yönetimde Yeni Yaklaşımlar* (s. 199-228). Ankara: Pegem Akademi.
- Memduhoğlu, H. B., & Ayyürek, O. (2014). Öğretmenlerin ve Okul Yöneticilerinin Görüşlerine Göre Anaokullarında Farklılıkların Yönetimi. *eğitim bilimleri araştırmaları dergisi*, 4(1), 175-188.
- Mercan, N. (2016). İş Hayatında Farklılık Yönetiminin Ve Gelişime Açıklığın Toplumsal Cinsiyet Eşitliği İle İlişkisi Üzerine Bir Araştırma. *PressAcademia Procedia*(2), 443-448.
- Morrison, M., Lumby, J., & Sood, K. (2006). Diversity and Diversity Management Messages from Recent Research. *Educational Management Administration & Leadership*, 34(3), 277-295.
- Saylık, A., Polatcan, M., & Saylık, N. (2016). Diversity Management and Respect for Diversity at Schools. *International Journal of Progressive Education*, 12(1), 51-63.



- Schermerhorn, J. R., Osborn, N., R., & Hunt, J. G. (2000). *Organizational Behavior* (7. b.). New York: John Wiley & Sons Inc.
- Seymen, O. A. (2006). The Cultural Diversity Phenomenon İn Organisations And Different Approaches For Effective Cultural Diversity Management: A Literary Review. *Cross-Cultural Management: An International Journal*, 13(4), 296-315.
- Sürgevil, O. (2008). *Farklılık ve İş Gücü Farklılıklarının Yönetimine Analitik Bir Yaklaşım; İşletme Ana Bilim Dalı Doktora Tezi*. İzmir: Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü.
- Sürgevil, O. (2010). *Çalışma Yaşamında Farklılıkların Yönetimi*. Ankara: Nobel Akademi .
- Sürgevil, O., & Budak, G. (2008). İşletmelerin Farklılıkların Yönetimi Anlayışına Yaklaşım Tarzlarının Saptanmasına Yönelik Bir Araştırma. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 10(4), 65-99.
- TDK. (2018, Mayıs 17). *Türk Dili Kurumu*.
http://www.tdk.gov.tr/index.php?option=com_bts&arama=kelime&guid=TDK.GTS.5b0a81c13a33b9.12961587 adresinden alındı
- Ünalp, A. T. (2007). *Küresel İşletmeler ve Küresel İşletmelerde Farklılıkların Yönetiminde Kültürel Farklılıkların Önemi; İşletme Ana Bilim Dalı Yüksek Lisans Tezi*. İzmir: Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü.
- Yıldırım, A., & Şimşek, H. (2006). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri* . Ankara: Seçkin Yayıncılık.



Examination of Teachers' Participation in Professional Development Activities as Lifelong Education

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Abstract

The aim of this study is to examine the relationship between the participation of teachers in professional development activities as a dimension of lifelong learning process and gender and necessity situations. Within the scope of PISA 2015, teachers were asked their gender and whether they should participate in professional development activities (TC021Q01NA-Do you need to participate in professional development activities?). In the past 12 months, teachers have been involved in professional activities, were asked to participate. In the PISA 2015 report, not only data on students' academic achievements, but also data on teachers' professional development is included. Teachers are trained before and after the profession to contribute to their development. In this study, Phi Coefficient was calculated to determine the relationship between the nominal variables. According to the results of the analysis, there is a low significant relationship between the variables.

Keywords: Lifelong Learning, Professional Development, Teachers

Introduction

Lifelong learning was an important agenda item in the work of international organizations such as UNESCO, OECD and the European Union in the 1970s. (Doğan & Kavtelek, 2015). For people, lifelong learning is a goal in itself. Lifelong learning is very important for finding a job, protecting a job and working in a job. It should also contribute to the ability of employees to cope with unemployment and early retirement, and to access and reopen business opportunities. Lifelong learning is also the foundation of society as a whole to promote democracy and human rights, solidarity and international awareness and to prevent social exclusion. (Charungkaittikul & Henschke, 2014).

Lifelong learning of teachers has a wide range of professional development, including professional development. High levels of lifelong learning of teachers in developed societies are among the most important issues (Özer & Gelen, 2008). Teachers participate in various in-service trainings to realize their personal and professional development. Increasing the quality of teachers is considered to be directly proportional to the increase in the quality of education (Seferoğlu, 2004). In a world of constant change and renewal, it is inevitable for teachers to update themselves in their professions (Demirel & Budak; Guskey, 2002). Changing technological and social trends also affect the expectations of teachers. It is possible to keep up with the changing world and modern education by adapting the knowledge, skills and attitudes that teachers should have (Guskey, 1986).

Problem statement and sub-problems (hypotheses)

The aim of this study is to examine the relationship between the participation of teachers in professional development activities (Knowledge and understanding of subject field(s), Pedagogical competencies in teaching any subject field(s), Knowledge of the curriculum, Student assessment practices, ICT skills for teaching, Student behaviour and classroom management, School management and administration, Approaches to individualized learning, Teaching students with special needs, Teaching in multicultural or multilingual setting, Teaching cross-curricular skills, Student career guidelines and counselling, Internal evaluation or self-evaluation, Use of



evaluation results (Teacher-parent cooperation) as a dimension of lifelong learning process and gender and necessity situations.

Method

Method of the research

The study is in the descriptive model.

Population-sampling,

The participants of the study are 53860 teachers from 17 different countries or regions. The distribution of the participants is presented in Table 1.

Table 1. Participations

Countries	Frequency	Percent	Countries	Frequency	Percent
United Arab Emirates	4428	8,2	Hong Kong	1820	3,4
Australia	7297	13,5	Korea	2125	3,9
Brazil	5315	9,9	Macao	2390	4,4
Chile	2337	4,3	Peru	2877	5,3
Colombia	3240	6,0	Portugal	2243	4,2
Czech Republic	3731	6,9	B-S-J-G (China)	3869	7,2
Germany	3490	6,5	Chinese Taipei	3099	5,8
Dominican Republic	1032	1,9	United States	2077	3,9
Spain	2490	4,6	Total	53860	100,0

Data collection tools

Within the scope of PISA 2015, teachers were asked their gender and whether they should participate in professional development activities (TC021Q01NA-Do you need to participate in professional development activities?). In the past 12 months, teachers have been involved in professional activities, were asked to participate. In the PISA 2015 report, not only data on students' academic achievements, but also data on teachers' professional development is included. Teachers are trained before and after the profession to contribute to their development. The data of the study was obtained from the questionnaires which were asked to the teachers within the scope of PISA 2015. In this research, teachers were asked questions about the following subjects. "Knowledge and understanding of subject field(s)", "Pedagogical competencies in teaching any subject field(s)", "Knowledge of the curriculum", "Student assessment practices, ICT skills for teaching", "ICT skills for teaching", "Student behaviour and classroom management", "School management and administration", "Approaches to individualized learning", "Teaching students with special needs", "Teaching in multicultural or multilingual setting", "Teaching cross-curricular skills", "Student career guidelines and counselling", "Internal evaluation or self-evaluation", "Use of evaluation results", "Teacher-parent cooperation"

Analysis techniques

In this study, it has been questioned whether teachers' participation in in-service training is related to gender and required. For this, Phi Coefficient coefficient was calculated.

Findings



Phi Coefficient coefficient was calculated to determine whether there is a significant relationship between teachers' participation in professional development activities as lifelong learning and their gender and the results are presented in Table 2.

Table 2. Relationship between participation and gender

		Are you female or male?		Total	Phi
		Female	Male		
Knowledge and understanding of subject field(s)	Not checked	14467	9797	24264	0,037*
	Checked	18717	10879	29596	
Total		33184	20676	53860	
Pedagogical competencies in teaching any subject field(s)	Not checked	16096	10601	26697	0,027*
	Checked	17088	10075	27163	
Total		33184	20676	53860	
Knowledge of the curriculum	Not checked	15795	10507	26302	0,031*
	Checked	17389	10169	27558	
Total		33184	20676	53860	
Student assessment practices	Not checked	16241	10830	27071	0,033*
	Checked	16943	9846	26789	
Total		33184	20676	53860	
ICT skills for teaching	Not checked	17205	10950	28155	0,011*
	Checked	15979	9726	25705	
Total		33184	20676	53860	
Student behaviour and classroom management	Not checked	18426	12142	30568	0,031*
	Checked	14758	8534	23292	
Total		33184	20676	53860	
School management and administration	Not checked	25882	15385	41267	0,041*
	Checked	7302	5291	12593	
Total		33184	20676	53860	
Approaches to individualized learning	Not checked	19733	12994	32727	0,034*
	Checked	13451	7682	21133	
Total		33184	20676	53860	
Teaching students with special needs	Not checked	21122	13998	35120	0,041*
	Checked	12062	6678	18740	
Total		33184	20676	53860	
Teaching in multicultural or multilingual setting	Not checked	25195	16056	41251	0,02*
	Checked	7989	4620	12609	
Total		33184	20676	53860	
Included in my prof dev: Teaching cross-curricular skills	Not checked	19796	12756	32552	0,02*
	Checked	13388	7920	21308	
Total		33184	20676	53860	



Student career guidelines and counselling	Not checked	24020	14785	38805	0,009*
	Checked	9164	5891	15055	
Total		33184	20676	53860	
Internal evaluation or self-evaluation	Not checked	20290	12900	33190	0,012*
	Checked	12894	7776	20670	
Total		33184	20676	53860	
Use of evaluation results	Not checked	20798	13151	33949	0,009*
	Checked	12386	7525	19911	
Total		33184	20676	53860	
Teacher-parent cooperation	Not checked	19362	12683	32045	0,03*
	Checked	13822	7993	21815	
Total		33184	20676	53860	

*p<.05

According to the results of the analysis, there is a significant, albeit low, significant relationship between all domains and gender. When Table 2 is examined, it is seen that the relationship is mostly in favor of women.

To determine whether there is a significant relationship between teachers' participation in professional development activities as lifelong learning and whether they are compulsory or not, Phi Coefficient coefficient is calculated and the results are presented in Table 3.

Table 3. Relationship between participation and obligation

		Are you required to take part in professional development activities?		Total	Phi
		Yes	No		
Knowledge and understanding of subject field(s)	Not checked	17437	6827	24264	0,124*
	Checked	24339	5257	29596	
Total		41776	12084	53860	
Pedagogical competencies in teaching any subject field(s)	Not checked	19369	7328	26697	0,119*
	Checked	22407	4756	27163	
Total		41776	12084	53860	
Knowledge of the curriculum	Not checked	18899	7403	26302	0,134*
	Checked	22877	4681	27558	
Total		41776	12084	53860	
Student assessment practices	Not checked	19456	7615	27071	0,137*
	Checked	22320	4469	26789	
Total		41776	12084	53860	
ICT skills for teaching	Not checked	20606	7549	28155	0,110*
	Checked	21170	4535	25705	
Total		41776	12084	53860	
Student behaviour and classroom management	Not checked	22595	7973	30568	0,100*
	Checked	19181	4111	23292	
Total		41776	12084	53860	



School management and administration	Not checked	31243	10024	41267	0,80*
	Checked	10533	2060	12593	
Total		41776	12084	53860	
Approaches to individualized learning	Not checked	23987	8740	32727	0,127*
	Checked	17789	3344	21133	
Total		41776	12084	53860	
Teaching students with special needs	Not checked	26133	8987	35120	0,103*
	Checked	15643	3097	18740	
Total		41776	12084	53860	
Teaching in multicultural or multilingual setting	Not checked	31355	9896	41251	0,067*
	Checked	10421	2188	12609	
Total		41776	12084	53860	
Teaching cross-curricular skills	Not checked	24284	8268	32552	0,088*
	Checked	17492	3816	21308	
Total		41776	12084	53860	
Student career guidelines and counselling	Not checked	29719	9086	38805	0,038*
	Checked	12057	2998	15055	
Total		41776	12084	53860	
Internal evaluation or self-evaluation	Not checked	24468	8722	33190	0,117*
	Checked	17308	3362	20670	
Total		41776	12084	53860	
Use of evaluation results	Not checked	25195	8754	33949	0,105*
	Checked	16581	3330	19911	
Total		41776	12084	53860	
Teacher-parent cooperation	Not checked	23882	8163	32045	0,088*
	Checked	17894	3921	21815	
Total		41776	12084	53860	

According to the results of the analysis, there is a significant, albeit low, significant relationship between all fields and whether teachers are obliged to attend in-service trainings. When the table is examined, Student Behavior and Classroom Management, School Management and Administration, Individualized Learning Use of evaluation results indicates that teacher-parent cooperation is not involved unless participation is compulsory.

Results, Conclusions and Recommendations

PISA 2015 data were used in this study which examined the teachers' participation in in-service trainings according to gender and necessity. As a result of the research, it was seen that female teachers participated in in-service trainings more than male teachers. It is seen that the studies supporting this finding obtained in this study are in the literature. In the studies conducted by Gencel (2013) and Erdoğan (2014), it was found that female teachers had more lifelong learning tendencies. There are also studies in the literature indicating that there is no difference between lifelong learning and gender by gender (Arcagök and Şahin, 2014; Konakman & Yelken, 2014; Yaman & Yazar, 2015). In addition, Karasolak, Tanrıseven & Yavuz Konokman, (2013) in the study conducted by teachers in the in-service training tuutm tutu tutmaların was not changed according to gender.



According to the results of the analysis, there is a significant, albeit low, significant relationship between all fields and whether teachers are obliged to attend in-service trainings. In support of the findings of this research, Ayaz (2016) found a significant difference in lifelong learning tendencies according to the desire to participate in studies such as courses, seminars and symposia related to personal and professional development. It is concluded that this difference is in favor of teachers who want to participate in studies such as courses, seminars, symposiums related to personal and professional development. Moreover, the results of Atacanlı (2007) are consistent. Based on the results of both researches, it can be said that the desire to participate in the studies related to personal and professional development increases the level of lifelong learning or those who have high level of lifelong learning are more willing to participate in such studies and these studies are an important factor in the lifelong learning process. In addition, in the study conducted by Günbayı and Taşdöğen (2012), it was emphasized that the voluntary participation of teachers in in-service trainings was the most important factor affecting success.

Considering the effect of the steps taken by the teachers who have an important role in the efficiency of education on their academic and social success, it is thought that the detailed analysis of the data about the professional development of the teachers in the PISA 2015 report will contribute to the literature.

References

- Arcagök, S. ve Şahin, Ç. (2014). Öğretmenlerin Yaşam Boyu Öğrenme Yeterlikleri Düzeyinin Çeşitli Değişkenler Açısından İncelenmesi. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 16, 394-417.
- Atacanlı, M.F. (2007). Ankara Üniversitesi Tıp Fakültesi öğrencilerinin öğrenme tercihi değerlendirme (LPA)ölçeği aracılığıyla yaşam boyu öğrenme davranışının yıllara göre değişiminin araştırılması, Yayınlanmamış Yüksek Lisans tezi, Ankara Üniversitesi Sağlık Bilimleri Enstitüsü, Ankara.
- Ayaz, C. (2016). Öğretmenlerin yaşam boyu öğrenme eğilimlerinin bazı değişkenler açısından incelenmesi. Yayınlanmamış Yüksek Lisans tezi, Bartın Üniversitesi, Eğitim Bilimleri Enstitüsü, Bartın.
- Charungkaittikul, S., & Henschke, J. A. (2014). Strategies for developing a sustainable learning society: An analysis of lifelong learning in Thailand. *International Review of Education*, 60(4), 499-522.
- Demirel, Ö., & Budak, Y. (2003). Öğretmenlerin hizmetiçi eğitim ihtiyacı. *Kuram ve Uygulamada Eğitim Yönetimi*, 33(33), 62-81.
- Doğan, S., Kavtelek, C.(2015).Hayat boyu öğrenme kurum yöneticilerinin hayat boyu öğrenmeye ilişkin algıları. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 15(1), 82-104.
- Erdoğan, D.G. (2014). Öğretmen adaylarının yaşam boyu öğrenme eğilimlerine etki eden faktörler. Yayınlanmamış Doktora tezi, Abant İzzet Baysal Üniversitesi, Eğitim Bilimleri Enstitüsü, Bolu.
- Gencel, İ. E. (2013). Öğretmen adaylarının yaşam boyu öğrenme yeterliklerine yönelik algıları. *Eğitim ve Bilim Dergisi*, 170, s.237-252.
- Guskey, T. R. (1986). Staff development and the process of teacher change. *Educational researcher*, 15(5), 5-12.
- Guskey, T. R. (2002). Professional development and teacher change. *Teachers and teaching*, 8(3), 381-391.
- Günbayı, İ., & Taşdöğen, B. (2012). İlköğretim okullarında çalışan öğretmenlerin hizmet içi eğitim programları üzerine görüşleri: Bir durum çalışması. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 1(3), 87-117.
- Karasolak, K., Tanrıseven, I., & Yavuz Konokman, G. (2013). Öğretmenlerin Hizmetiçi Eğitim Etkinliklerine İlişkin Tutumlarının Belirlenmesi. *Kastamonu Eğitim Dergisi*, 21(3), 997-1010.
- Konokman, G. Y., ve Yelken, T. Y. (2014). Eğitim Fakültesi Öğretim Elemanlarının Yaşam Boyu Öğrenme Yeterliklerine İlişkin Algıları. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*,29 (2), 267-281.
- Özer, B., & Gelen, İ. (2008). Öğretmenlik mesleği genel yeterliklerine sahip olma düzeyleri hakkında öğretmen adayları ve öğretmenlerin görüşlerinin değerlendirilmesi. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 5(9), 39-55.



- Seferoğlu, S. S. (2004). Öğretmen yeterlikleri ve mesleki gelişim. Bilim ve Aklın Aydınlığında Eğitim, 58, 40-45.
- Yaman, F. ve Yazar, T. (2015). Öğretmenlerin yaşam boyu öğrenme eğilimlerinin incelenmesi (Diyarbakır ili örneği), Kastamonu Eğitim Dergisi, 23 (4), 1553-1566.



Cultural Globalization and Its Reflections in Education

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Abstract

Recently, the world has entered a rapid globalization process with the rapid increase of human population, the effect of modern culture on human life and the facilitating effect of technology. This process has a structure that permeates almost all areas of life. One of these areas is education. The aim of this study is to discuss the effect of cultural globalization on the education system. When the relevant literature on the effect of globalization on education is examined, it is seen that there are many studies pointing out the positive and negative aspects of this effect. The reason for the existence of both negative and positive views is the fact that the explanations are based on different globalization approaches. In this study, both positive and negative effects of globalization on education will be explored.

The current study was conducted as a literature review study. In the course of the research process, all resources, especially the basic resources, were tried to be reached within the framework of the questions determined on the subject. As a result of the review, the most prominent definitions related to globalization were discussed in the current study. The evolution process of globalization was also briefly mentioned. The effects of cultural globalization were discussed in relation to the effects of globalization on education. In this context, as a result of the research, it can be said that globalization creates its effect on education through many channels such as legal arrangements, cultural transfer and interaction. When the long-term effect of globalization on education is considered, it is clear that it can give rise to both positive and negative outcomes. The overall direction of interaction occurs from strong to weak, from big to small. Accordingly, it can be stated that the cultural values of developed countries are spreading more and more with each day. On the other hand, it can be said that the cultural values of the less developed countries are under threat and affected by the developed countries.

Key Words: Globalization, education, reflection

Introduction

In the steadily changing world, changes are experienced in many areas such as social, political, economic, health, education etc. These changes can be in favour of the development of humanity or against it. This shows that during the history of mankind, there have been ups and downs in the development of humanity. These ups and downs are sometimes manifested as wars, devastations and crises, and sometimes as discoveries and innovations. These ups and downs were sometimes temporary and sometimes created the feeling that they would last forever. Although the effects of these ups and downs seem to have been limited to the society where the events took place in the past, in fact it was observed that it spread from one society to another in the long-run because societies were relatively independent of each other and almost did not go beyond their borders. However, with the development of mankind, it is clear that the rate of spread of the effects of the events in the world increased. Towards the end of the 20th century, it is seen that the effects of events in the world spread more rapidly among other societies. Regardless of the nature of the event, it was seen to affect all societies in the world. Thus, as stated by McLuhan and Powers (2015), the world has become a small village.

The changes in the world create a wind effect blowing from one society to another and from one country to another. The effect of this wind is manifested in management systems as well as in the social life of societies. Countries' political, economic, health, education, etc. systems take their share from this wind. At this point, the



nationality of countries or systems is discussed (Kwiek, 2000; Kaymakçı, 2007). All these discussions show that it is suspected that national systems can survive against the global one (Hosseini, 2015). Therefore, it is appropriate and necessary to discuss what can be done to protect our management systems against the wind breeze of globalization.

Globalization has developed and strengthened in the same period with the nationalism movement. This situation can be seen in the processes of historical development. However, the basic assumptions on which they are based vary. Although this difference does not occupy a significant place in the lives of societies, its consequences have become a matter of survival for societies. Therefore, the idea of globalization is perceived as opposing the idea of nation-statism.

From the time when globalization began to make its presence felt, it has found many supporters yet also created its counter movements. This is because while there are many people taking full advantage of globalization, there are a large number of people who cannot benefit from it rather seeing it as a source of risks and threats. According to Kongar (2000), globalization has led to major changes in the economic, political and cultural fields and has been effective in the collapse of the nation-state structure.

In response to this dilemma of globalization, different groups have emerged making different interpretations of globalization. There are those who see globalization as an opportunity on the one hand, there are some other groups thinking that it increases inequality, suppresses national governments and threatens the world on the other. Since the education system is one of the basic systems involved in the country administrations, similar interpretations are made in relation to the education system. In this context, there is a need for studies to explore the effects of globalization on education systems. Thus, the current study intends to present a discussion of how education systems are affected from globalization, what is expected of these effects and why these effects are differently interpreted. In this connection, the purpose of the current study is to define globalization and discuss its effect on the Turkish Education System. To this end, answers to the following questions were sought:

- 1) How is the development process of globalization?
- 2) What are the effects of globalization on the Turkish Education System?
- 3) What are the reflections of cultural globalization in education?

Method

The current study was designed qualitatively according to the literature review method. According to Cronin, Ryan and Coughlan (2008), literature review can be defined as creating a comprehensive summary and critical analysis of the existing information produced about a specific subject. Throughout the current study, the following stages were followed. First, the concept of globalization and the development of this concept were examined. Then, its effects on the Turkish Education System were investigated and then the reflections of globalization in terms of its cultural dimension in education were explored.

The documents reviewed in the current study include scientific books, articles and reports. The reviews of the documents were conducted in 2018-2019. All the relevant reports, articles and books available to the researcher were subjected to the review. The concepts used to reach the resources to be reviewed are “globalization, history of globalization, cultural globalization and education”. As a result of the review, the resources reached on the basis of these concepts were classified under these concepts. The obtained findings were discussed in a manner



suitable for the purposes of the current study. For the sake of the unity of the subject, the discussions are presented together with the findings.

Findings

Globalization

It would not be wrong to say that anywhere in the world is now accessible. Any point in the world is more easily accessible than ever before, which excites individuals on the one hand and exposes individuals and societies to the influence of others on the other. Human beings called these expanding opportunities of accessibility and interaction which excited them as globalization. In this respect, globalization can be defined as the state of being exposed to the influence of geographically distant societies or forces. Giddens (2012: 60), on the other hand, defined globalization as the intensification of world-wide social relations that connect remote settlements in such a way as to allow local formations under the influence of international events or vice versa. According to the definition of Kartal (2016: 290), globalization is a phenomenon that develops as an expression of the ability to bring two distant points of the world closer to each other in many ways. With the concepts put forward for globalization, even the definition of the world has changed. With his book "The Gutenberg Galaxy: The making of typographic man" published in 1962, McLuhan first used the concept "Global Village". In his book, McLuhan (1962, 31) used the concept of global village in the following sentence, "Electromagnetic discoveries led to new relations in all human relations and these new relations are synchronous relations. In this way, people are now living in an environment of global village". When these sentences were written in 1962, there was no internet or digital platform. However, it was a time when the whole world was highly familiar with and widely used technologies such as TV, radio, telephone and telegraph. In this context, it can be stated that McLuhan used the term "global village" by considering the synchronous communication opportunities created by these technologies for human beings. This term of "global village" was used quite properly and this word has become smaller with each day and today even using the term "global cell" to define it would not be wrong. However, according to the comments made by Georgiadou (1995), while McLuhan put forward this concept, he considered the developments in human culture and that humanity moved to a new stage of culture, left behind the old stages and focused on written and spoken expressions therefore would make further developments in the future.

Globalization is one of the important concepts used in defining the contemporary world system. By its content, it is a concept that can be pronounced in every field of life. The main characteristic of this concept, to which good or bad meanings can be attributed from different perspectives, is that the globalizing thing has a structure that permeates many points on the world (Gözen, 2004: 70-71). According to Akın (2001: 77), globalization creates opportunities such as the development of economic, social and political relations of countries, better recognition of other societies and intensification of international relations. Gözen (2004: 71) defines globalization as a framework concept which brings plural actors particularly individuals, civil society sciences and economic actors and their multi-faceted relations to the fore from a pluralistic perspective. According to Timisi (2003, 105), with globalization, the interest of a homogeneous class having common social interests and a world view loses its importance, leading to the emergence of inequalities in income, wealth and power distribution. When all these definitions are evaluated within the scope of the concept, it can be said that the concept of globalization can be considered as a framework concept both sociologically and economically because the scope of the concept includes almost all dynamics that shape the world (Şen, 2008:148).

One of the most important issues in the globalization debate is the globalization – nation state debate. The cultural change brought about by globalization, the rate at which this cultural change is accepted by societies and the conviction that national cultures are degenerated for this reason disturbed many of the societies in the world particularly conservative masses because in the global village, many innovations and cultural exchanges pass from one society to another in a very short time and very easily. These cultural changes have found a strong acceptance in the minds of younger generations, but not at the same level in the middle-aged and elderly



generations. These cultural changes are even rejected by most adult generations. In other words, they do not find the same level of acceptance in the minds of the decision-makers who are in the position of making decisions about how young people should be raised. In other words, these cultural changes cause individuals who are in the position of making decisions to feel concerned. This is the basis of the cultural conflict between the two generations. In these debates, the prevailing view is that globalization is increasingly replacing nation-states, or that it poses a threat to nation-states. According to Hirst and Thompson (2000: 26), while national culture, national economy and national boundaries disappear in the face of globalization, many parts of daily life are shaped by active cultures spread through globalization. Seen from this perspective, those who advocate the necessity of the society to remain with national identity and live with national culture are concerned that they may be ineffective and inefficient in the face of active cultures. This state of concern has given rise to a counter-movement of globalization. According to this counter-movement, nation-states remain valid and need to be protected. According to Hosseini (2015, 2), it can be stated that the idea that nation states are still valid and this is necessary is more widespread.

The globalization process did not work in the same way for all regions and countries. The functioning level of globalization in a society is related to the level of modernity of the society or the level of interaction with other communities in the form of an open system. The more open the society is to interaction with other societies, the higher the potential of globalization to penetrate into it and to globalize it. The opposite is also correct. As a result, either positive or negative, the level of share taken from globalization depends on the level of effectiveness of the society among other societies. Thus, the extent to which the daily lives of individuals in the society are affected by globalization depends on the effectiveness of this society, because according to Giddens (2000: 15), globalization affects not only the events happening around the world but also the daily life.

Development Process of Globalization

The beginning of the globalization process can be taken back to very old times depending on the definitions to be made about the concept. If the definition of the concept is to be made as communication between people, tribes living in different regions or their being aware of each other, it is necessary to set a date for the beginning of globalization accordingly, but it will not be easy to determine this. However, if some certain criteria are determined to find a date for the beginning of globalization, then it can be more clearly determined. Wallerstein I associates globalization with the capitalist economic system and argues that globalization emerged in the 16th century. If associated with the discovery of new trade routes and geographic discoveries, then the history of globalization can go back to the 14th-15th centuries (Gözen, 2004: 85). The events that contributed to globalization up to the 19th century were generally the development of ship and gun building and communication and transportation technologies because through these developments, colonialism, missionary activities and commercial activities were carried out. The end of the 19th century and the 20th century were periods in which globalization progressed with leaps. There are some social and historical events that cause these leaps. The most important of these can be listed as the establishment of organizations such as the League of Nations and the United Nations. At the same time the establishment of IMF (International Monetary Fund), the World Bank, the First and Second World Wars, the emergence of the so-called Super Powers, the period of the Cold War and the collapse of the Soviet Union and the emerging states trying to be a part of the capitalist economic system are other developments that are effective (Gözen, 2004: 86-87). In other words, the important points in the logbook of globalization are those that deeply affect the global village and shape its future.

When we look at the history of the concept of globalization, it can be said that the word “global” has been known for a long time, but the use of globalization as a concept dates back to the 1800s (Naishitt, 1994: Devrim and Altay, 1997; cited by Karabıçak, 2002:116). The concept, which gradually began to find its place in the 1950s, became a fashionable term in the language of everyone after 1980, when many issues were linked to globalization (Bauman, 1998:7).



Reflections of Globalization in the Turkish Education System

Globalization has affected the economy, politics and culture as well as the education system which forms the basis of all these and ensures the continuation of culture. The effect of globalization on education can be considered in two different dimensions because globalization affects the education sector in two different ways: direct and indirect. Globalization has a direct effect on educational activities because education is seen as a tool for the creation of workforce with global culture, thinking and approaches. In this sense, goals such as creating a culture that is open to innovation, competition-oriented, multicultural and is based on collaboration within the group have been adopted by almost all education systems in the world. In addition, the transfer of behaviours and skills complying with these goals to new generations is among the main objectives of today's education systems. Seen from this perspective, education is a solution for countries in order to survive in the competitive environment in the field of globalization because the training of the required human resources both quantitatively and qualitatively depends on education. Globalization indirectly affects educational activities, because globalization affects the economy, politics and culture of the country. Education is also changing indirectly due to changes in the fields of economy, politics and culture, and their dynamics that permeate all areas because education has a structure that serves as a source to all other areas and having something to do with all other areas.

The financial fund systems (IMF, World Bank) established under the leadership of the major world states are the systems that are intended to provide visible support to the member countries experiencing economic problems. However, most of these funds are provided by big states such as USA, UK, France, Japan and Germany. These states, which have the power and privilege to provide funds, have the privilege to influence the funding institutions as well. These funding institutions, which are largely financed by powerful sovereign states, have become the channels of application of the global market idea that the countries they receive funds from want to form in the world. These powerful states have begun to impose sanctions on states wishing to borrow from the fund to serve their own purposes. The sanctions imposed were mainly imposed on countries with poor economic conditions in order to pave the way for the global circulation of capital and to create markets in the global order. Some of these impositions were the works that paved the way for privatization. Today, the scope of privatization is not limited to financial or industrial institutions. It has penetrated into the service sector and even to national education systems.

Globalization entered the Turkish Education System in the 1980s through the concepts of localization and privatization and has been effective in the system since then. Then it started to dominate the system by highlighting the inadequacies of the current education system. First of all, with the arguments that the central administration system could not adequately respond to the education needs of the public, the classes were crowded in schools, there was a lack of necessary physical facilities, and the performance of teachers and other employees was poor, it was suggested that privatization would be beneficial in the education sector. After that, with the privatization, the idea that quick solutions to problems could be found through the local management structure of education resulting from privatization was promoted and thus education was opened to the global market. Together with privatization, education has been transformed into a commodity that can be bought and sold globally if desired (Kocabaş and Yirci, 2013: 1526-1527).

The concept of globalization affects living spaces in many ways and in many respects. Accordingly, its effects on education may also develop in different ways. The effects emerging in different ways and forms make up a complex phenomenon. In order to understand this phenomenon more easily, it is necessary to analyze how this effect occurs in the main areas where it affects life. In the current study, the effect of globalization on education from the cultural dimension was examined.



Reflections of Cultural Globalization in Education

The effect of globalization on culture is closely related to the education sector. When national education is considered, national culture is seen as both an end and a means. It is seen as an end because one of the functions of education is the transfer of national culture from generation to generation. It is seen as a means because the school uses national culture to maintain the school system and to perform other functions of the school. The effect of cultural globalization on education is also seen on curriculums. The main reason for this is the change in business areas. According to Balay (2004), globalization has abolished existing employment areas and brought new employment areas. In this context, globalization improves the developed countries, which are seen as the locomotives of globalization, and adversely affects the underdeveloped countries that have already lagged behind. For this reason, underdeveloped countries need to turn to emerging professions in order to educate their labour force and they have to provide more appropriate training for this to occur. This requires new curriculums and new approaches. Since all innovations are first seen in developed countries, underdeveloped countries have to follow these innovations from behind and be dragged after the developed countries. This makes the education sector in the underdeveloped countries no longer national, or makes it more difficult to maintain the nationality of their education sectors. Özdemir (2011) states that countries should change their education systems and education programs to adapt to new changes that emerge as a result of globalization and that society should change and develop in the direction of national and international values and qualities for a healthy change.

However, given that the change brought about by globalization is continuous and an endless wave, it is inevitable that international values will prevail over national values with each day. Çalık and Sezgin (2005) see this as a threat to education programs. Therefore, it causes the society to feel that their culture is under threat and to lose confidence against other cultures because the weaker in this situation is doomed to extinction. Leaman (2009) states that this is one of the negative aspects of globalization because at the end of this process, it can be concluded that there is a tendency towards a single education program and model in the global village. In this way, the implementation of a single form of education in all countries and the existence of a single culture may mean the destruction of cultural values of societies, especially those of less developed countries. Although this danger is a visible danger, many countries nowadays tend to adopt practices that support this process of their own free will. For example, attempts made to change the education programs of Turkey to improve the ranking of Turkey in PISA exam from which it has been taking low scores can be given as an example in this regard.

A group called “transformists” who believe that globalization will bring a new order to the social, political and economic systems of countries all around the world, and thus the world order will have a new function, is looking at globalization from a different perspective and evaluating this change in national culture differently (Bozkurt 2000: 24). Transformists approach this change in national culture positively and see it as development. Güven (1999) states that globalization involves important opportunities and one of these opportunities is that through globalized educational-instructional programs, more international and therefore intercultural interaction is possible. In this regard, in many developing countries including Turkey, greater emphasis has been put on multiculturalism and global approaches to education in their education programs. However, it is stated that Turkey is just at the beginning stage. According to Korkmaz (2017), the research on globalization in Turkey is very little and the effects of multiculturalism and global approaches to education on educational programs in Turkey were observed to be very weak. Therefore, the importance of multiculturalism and global education in education programs should be emphasized more and new objectives and class activities should be added to them to support globalization. In addition to this, new courses should be added to the curriculums of education faculties in order to train pre-service teachers to better deal with the issue of globalization. Many people are aware of the need for revising curriculums, thinking that this is important for development. In this connection, Singh (1996) states that education systems are stuck between globalization, access to information and



multiculturalism and protection of national values. Turkey is making efforts to integrate with the European Union to seize this growth opportunity. Thus, it conducts student exchange programs with European Union countries.

On the other hand, it is stated that it is possible to be protected from the negative effects of globalization. According to Özdemir (2011: 100), education programs have an important function to serve in this regard. It is a negative situation that other cultures put pressure on national cultures or cause changes in the attitudes, behaviours, beliefs and lifestyles of young generations. This effect is felt more deeply by developing countries such as Turkey society. With globalization, there are concerns that the values system has been dissolved, that national values have started to degenerate or have been subjected to change. In this context, it is possible to alleviate these concerns by enhancing the functionality of educational programs.

Globalization can create opportunities for knowledge, technology, social values and behavioural norms. It can affect the development of individuals, organizations and societies from different countries and cultures at different levels (Bakhtiari, 2011: 96). New economic structures or globalization can create a new culture or change the existing culture by affecting it more or less. With globalization, people's life experiences will begin to show similarity, because it is inevitable that similar causes will have similar results (Talas and Kaya, 2007). Technological systems that penetrate into the deepest levels of life are one of the accelerators of this cultural globalization because technological developments that accelerate communication and make life similar with the use of similar technologies lead to similar lives. In recent years, the use of a global common language has become important with the increase and ease of international communication through technology. This common language which is spread over technology in general is the carrier of culture and thus humanity has entered an intensive process of acculturation. This is one of the elements accelerating cultural globalization. The fact that information is generally shared over a common language and that it is easily accessible through technology has turned the direction of education towards teaching people how to access information rather than transmitting information to them. Educational environments are tried to be transformed into environments where children can think, do research and discuss a number of issues. Encyclopaedias were replaced by computers and the Internet through which more interactive activities could be carried out. In addition, besides activities directed to the development of verbal and numerical intelligence, visual, kinaesthetic and rhythmic activities have been incorporated into curriculums. Instead of inculcating the information that is thought to be used in the future, students are taught how to reach this information. In addition, learning is now seen as a lifelong activity. Thus, adult education and in-service trainings have gained greater importance (Balay, 2004: 67). The cultural globalization that triggered the change has brought about the need for school administrators and teachers to update their methods and techniques in the field of education. This has also been emphasized in the Turkey's 2023 vision document issued by the Ministry of National Education. It is stated there that there will be studies to support the postgraduate education of teachers and administrators.

In the education system, some arrangements have been made to ensure international student mobility. Turkey has been involved in the Bologna process in an active way to actively use this student mobility system. Within the scope of the Bologna process, qualification and quality systems have been established in order to achieve diploma equivalence in other countries. Turkey manages the mobility of approximately 15 thousands incoming and outgoing students (YÖK, 2019). This is a reflection of globalization in education because this mobility includes a global circulation and sharing of culture and human capital.

Conclusions

Globalization refers to a similarity movement in the world, which can be interpreted as good or bad when viewed from different points. This similarity movement is supported by the financial structure and is in cooperation with technology. In other words, the fixed and expected result of globalization in general is that globalization will



reveal similarities at many points around the world, because globalization has a structure that facilitates the movement of capital and causes the market to be liberated.

Globalization has emerged as the globalization of economy and the globalization of politics and culture in ways that affect each other. In the globalization of economy, the mobility of capital and the weakening of economic boundaries come to the fore. In political globalization, countries have similar policies in order to address the markets. As in other countries particularly in the ones strongly influenced by globalization like Turkey, globalization has significant reflections in the education system. This was also stated by Zajda (2016). Cultural globalization is the emergence of similar cultures with the triggering and dispersing effect of technology. As a result, people from different regions of the world tend to have similar food consumption culture and to show similar behaviours.

The reflections of globalization in the education system emerge as privatization and localization in education because privatization makes education open to the market and influences of other educational cultures in the world. In addition, student exchange programs are the result of globalization. With the student exchange system, the way of transferring human capital to different countries has also been opened. In order to ensure diploma equivalence, efforts have been invested to match the programs of universities in different countries. Therefore, Turkey has been involved in the Bologna process. This is another reflection of globalization in education.

Basically while the nations benefiting from all the blessings of globalization define globalization as good, the nations not making any use of the outcomes of globalization and even harmed by it define it as bad. Almost all innovations in the world are introduced by developed countries and exported to less developed countries. As in every field, this is also true for education. However, the innovations and developments in the field of education threaten societies' national cultures and values. Furthermore, those who argue that there is and should be an extreme globalization accept that this wind of change and transformation is blowing from developed countries to less developed ones. Moreover, these extreme globalization supporters also state that this international interaction should occur and for this to happen, globalization is the only valid and inevitable way. It is a natural reaction that the underdeveloped countries feel themselves under threat and risk of extinction. In addition, globalization operating in this way carries the risk of dragging the whole world to a single type of humanity with each day.

References

- Akın, B. (2001). *Yeni ekonomi strateji rekabet ve teknoloji yönetimi*, Konya: Çizgi Kitabevi.
- Bakhtiari, S. (2011). Globalization and education: challenges and opportunities, *International Business & Economics Research Journal (IBER)*, 5, 10.19030/iber.v5i2.3461.
- Balay, R. (2004). Küreselleşme, bilgi toplumu ve eğitim, *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 37 (2), 61-82.
- Bauman, Z. (1998). *Küreselleşme: Toplumsal sonuçları*, Yılmaz, A. (Çev.), İstanbul: Ayrıntı Yayınları.
- Bozkurt, V. (2000). Küreselleşme: Kavram, gelişim ve yaklaşımlar, Bozkurt, V. (Edt.), *Küreselleşmenin İnsani Yüzü*, İstanbul: Alfa Basım Yayım Dağıtım.
- Cronin, P.; Ryan, F. & Coughlan, M. (2008). Undertaking a literature review: A step-by-step approach. *British Journal Of Nursing* 17(1), 38-43. DOI: 10.12968/bjon.2008.17.1.28059
- Çalık, T., ve Sezgin, F. (2005). Küreselleşme, bilgi toplumu ve eğitim. *Kastamonu Eğitim Dergisi*, 13(1), 55-66.
- Devrim, F. ve Altay, A. (1997). *Küreselleşme sürecinde gelişmekte olan ülkelerde Finans piyasalarının gelişimi ve kamu müdahalesi*, İzmir: DEÜ, İİBF Maliye Bölümü Yayını.
- Georgiadou, E. (1995). *Marshall McLuhan's 'global village' and the internet*. Master Thesis (Master of Arts in Image Studies), University of Kent at Canterbury, Faculty of Humanities, 1995.



- Giddens, A. (2000). *Elimizden kaçıp giden dünya*, 1. Basım, Akinhay, O. (Çev.), İstanbul: Alfa Basım Yayım Dağıtım.
- Giddens, A. (2012). *Modernliğin sonuçları*, 5. Basım, Kuşdil, E. (Çev.), İstanbul: Ayrıntı Yayınları.
- Gözen, R. (2004). *Uluslar arası ilişkiler sonrası çoğulculuk küreselleşme ve 11 eylül*, 1. Basım, İstanbul: Alfa Basım Yayım Dağıtım.
- Güven, İ. (1999). Küreselleşme ve eğitim dizgesine yansımaları. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 32(1), 145-159.
- Hirst, P.Q. & Thompson, G. F. (2000). 'Globalization in one country: The peculiarities of the British, *Economy and Society*, 29(3), 56-335.
- Hosseini, H. (2010). Globalization and nation-state. *Global Alternatives*. 1-8 DOI: 10.13140/RG.2.1.5028.7528. <https://globalalternatives.wordpress.com>
- Karabıçak, M. (2002). Küreselleşme sürecinde gelişmekte olan ülke ekonomilerinde ortaya çıkan yönelimler ve tepkiler, *Süleyman Demirel Üniversitesi İktisadi İdari Bilimler Fakültesi*, 7 (1), 115-131.
- Kartal, Ç. (2016). Küreselleşme sürecinin devlet yapısı üzerine etkileri, *Ankara Barosu Dergisi*, (2), 288-327.
- Kaymakçı, O. (2007). "Küreselleşme ve Ulus Devlet", Ankara; Ekin Kitabevi Yayınları
- Kocabaş İ. ve Yirci, R. (2013). Eğitimde özelleştirme tartışmaları: Kavramsal bir analiz, *International Periodical For The Languages, Literature and History of Turkish or Turkic*, 8 (8), 1523-1539.
- Kongar, E. (2000). Barış Kültürü ve Demokrasi, [www.kongar.org.tr], e.t. 06.02.2009. _____, 2003, Küreselleşme, Mikromilliyetçilik, Çokkültürlülük Anayasal Vatandaşlık. [www.kongar.org.tr], Erişim Tarihi: 06.02.2009.
- Korkmaz, F. (2017). Küreselleşmenin eğitim programlarına etkileri. Demirel, Ö. ve Dinçer, S. (Edt) *Küreselleşen Dünyada Eğitim*, 167-184, Ankara: Pegem akademi
- Kwiek, M. (2000). The Nation-State, Globalisation and the Modern Institution of the University. *Theoria, A Journal of Social and Political Theory*, 96(96), 74-99 DOI: 10.3167/004058100782485729 <https://www.researchgate.net/publication/225083708> _The_Nation-State_Globalisation_and_the_Modern_Institution_of_the_University.
- Leaman, O. (2009). Küreselleşme ve eğitim felsefesi: Sorunlar ve ihtimaller. Açar, H.R. (Edt.), *Uluslararası Eğitim Felsefesi Kongresi* (6-8 Mart), 119-123, Ankara: Eğitim-Bir-Sen
- McLuhan, M. & Powers, B.R. (2015). Global köy: 21. yüzyılda yeryüzü yaşamında ve medyada meydana gelecek dönüşümler, Düzgören, B. Ö. (Çev), 24, İstanbul: Scala Yayıncılık.
- McLuhan, M. (1962). *The Gutenberg Galaxy: The making of typographic man*. London: Routledge.
- Naisbitt, J. (1994). *Global paradoks (Büyüyen dünya ekonomisinin güçlenen küçük oyuncular)*, Gül, S. (Çev.) İstanbul: Sabah Yayınları.
- Özdemir, S. M. (2011). Toplumsal değişme ve küreselleşme bağlamında eğitim ve eğitim programları: Kavramsal bir çözümleme. *Ahi Evran Üniversitesi Eğitim Fakültesi Dergisi*, 12(1), 85- 110.
- Selamoğlu, A. (2000). Yoğunlaşan sosyal sorunlarıyla küreselleşme, Bozkurt, V. (Edt.), *Küreselleşmenin İnsani Yüzü*, 1. Basım, İstanbul: Alfa Yayınları.
- Singh, K. (1996). Education for the Global Society. The UNESCO (1996) *Learning: The Treasure Within*, Paris.
- Şen, B. (2008). Küreselleşme anlamlar ve söylemler, *SDÜ Fen Edebiyat Fakültesi Dergisi*, 18, 147-162.
- Talas, M. ve Kaya, Y. (2007). Küreselleşmenin kültürel sonuçları, *Türklük Bilim Araştırmaları Dergisi*, 22, 149-162.
- Timisi, Nilüfer (2003). *Yeni iletişim teknolojileri ve demokrasi*. Ankara: Dost Yayınevi.
- YÖK, (2019). Öğrenci İstatistikleri, İstatistik, Erişim Tarihi: 13.01.2019, Erişim Adresi: <http://www.istatistik.yok.gov.tr>.
- Zajda, J. (2016). Globalisation, ideology and education reforms. In J. Zajda (Ed.), *Globalisation, ideology and politics of education reforms* (pp. 1-10). Dordrecht: Springer



Modern Problems of Accounting and Auditing

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Abstract

The main purpose of the study is to research and evaluate the processes that have arisen in the development and improvement of the training of professional accountants and auditors, as well as recommendations for improving the efficiency of their work. The use of the progressive accounting technologies, including the automation of similar processes, reduces the time needed to create information in accounting. In the new conditions there is a need for the ability to assess the risks arising from the development of automation. Requirements for carriers of the accounting profession in these conditions are changing. It becomes imperative to work in standard office and special accounting programs at the level of a confident user and quickly adapt to changes in software. Therefore, continuous professional development of professional accountants is one of the prerequisites in Azerbaijan. In the conditions of development of automation, the need for building and maintaining a system for controlling the formation of information at each stage of the accounting process is importance for the accountant. The control system should identify the compliance of the result with the requirements of legislation, accounting policies, formal logic and common sense. The key role in this control system is assigned to a person who must have a systematic understanding of accounting theory and practice. The practical significance of the study can play a positive role in enriching the scientific and practical knowledge of experts involved in accounting and reporting. Continuous professional development, development of new knowledge and skills becomes objectively necessary. The professional education of accountants should be continuous throughout the professional career. It is necessary to develop the acquired competencies within the framework of additional professional education and self-education.

Key words: financial statements, accounting, auditing, misstatements, automation.

Introduction

Discussing the problems of accountability and transparency, one cannot overlook such an important element as professional qualification and education of profession holders - accountants and auditors. It is from the basic training of specialists, whose main task is to compile and confirm the reliability of reporting, which determines its quality.

The accounting and auditing professions are closely interrelated: the accounting (financial) statements, which is the result of the accountant's work, become the starting point for the auditor's activities. The ultimate goal is to provide society with reliable information on the financial position of an economic entity, the financial result of its activities, which are necessary for users to make economic decisions. There is an opinion that accountants and auditors form one profession. Without going into the details of this discussion, which is quite dramatic in some audiences, we note that the following fact is beyond doubt: the auditor must know accounting, and must know it well, even perfectly! (Bychkova, S.M. and Itygilova, E.Yu., 2007).

In practice, the same teachers train the accountants and auditors. Therefore, excluding some nuances, it can be stated that the problems caused by deficiencies in the training of accountants and auditors are very similar. Thus, considering the training of specialists in the field of accounting, we, at a minimum, identify problems in the training of auditors.

Professional activities of accountants and auditors are inextricably linked with changes in the economic sphere. In the conditions of rapid development of processing and information exchange technologies, the company is waiting for accountants to shorten the time frame for submitting reports and reduce the cost of preparing them while maintaining the quality of the reporting information. This cannot be achieved without increasing the



intensity of accounting work. The use of progressive accounting technologies, including the automation of similar processes, reduces the time needed to create information in accounting.

One of the areas of introduction of information technology in Azerbaijan is the widespread use of electronic documents by economic entities. The result of its use was the integrated automation of such labor functions as the acceptance for accounting of primary accounting documents, the monetary dimension of accounting objects and the current grouping of facts of economic life.

Automation is one of the tools to achieve the goal of accounting as a type of professional activity. In this case, the total set of labor functions that determine the profession of an accountant does not change. Only the way they are performed changes. As a result of automation, labor is redistributed from person to machine. Routine, one-type actions are performed by the machine. A person performs logical, control and analytical actions.

Methodology

Scientific articles, monographs and other information of domestic and foreign economists on the problems of accounting, economic analysis and fundamentals of the theory and methodology of auditing, normative, methodological and methodical materials were the theoretical basis of the study.

The practical significance of the study can play a positive role in enriching the scientific and practical knowledge of experts involved in accounting and reporting. Continuous professional development, development of new knowledge and skills becomes objectively necessary.

Requirements for carriers of the accounting profession

Requirements for carriers of the accounting profession in modern conditions are changing. For example,

- It becomes imperative to work in standard office and special accounting programs at the level of a confident user and quickly adapt to changes in software products;
- Continuous professional development, development of new knowledge and skills becomes objectively necessary. For accountants, unlike auditors, it is not legally enforced and is determined by the requirements of employers. Therefore, continuous professional development of professional accountants is one of the prerequisites in Azerbaijan. In the new conditions there is a need for the ability to assess the risks arising from the development of automation.

One of these risks is the possible loss by the accountants of a part of their professional skills, the loss of professional qualifications, which will entail a decline in the quality of their work.

Today, in the public consciousness, the cult of the machine's superior capabilities over human capabilities is being formed. A person absolutely trusts the results obtained in an automated way. As a result, often accountants do not have the ability and do not consider it necessary to check and analyze accounting information, which has a negative impact on its quality. However, we should not forget that the use of automated technologies in the accounting process does not relieve the accountant from the responsibility established by law for the distortion of reporting information (ACCA. F8 Audit and Assurance, 2017-2018). Thus, in the conditions of development of automation, the need for building and maintaining a system for controlling the formation of information at each stage of the accounting process is importance for the accountant. The control system should identify the compliance of the result with the requirements of legislation, accounting policies, formal logic and common sense (Deloitte development LLC, 2010). The key role in this control system is assigned to a person who must have a systematic understanding of accounting theory and practice.

For auditors, this problem is transformed into the mechanical filling of working papers and tables without analyzing the results. This is a necessary and voluminous work, but it does not require high qualification, which



can “teach” the auditor to draw conclusions automatically, without conducting the necessary analysis, without delving into the essence of a specific audit. The existence of this problem is complained by the auditors themselves in different countries. Summarizing, we can say that in cases where an employer, wishing to choose a better candidate, requires a higher qualification from an applicant, “in reserve”, if it can be expressed so, but then does not provide him with an appropriate level of work, the qualification of the employee is lost.

According to the report on the results of the activities of the chamber of auditors of Azerbaijan Republic for 2017, 45 independent auditors, 67 audits of (including representations and branches of 2 external auditor organizations and 15 auditor organizations that uses a trademark of foreign legal entities) the authority to carry out an audit activity. By the 45 independent auditors and 77 auditing organizations presented the report on the activity of the Chamber of Auditors. According to the report, it was found that, during the reporting period, 4826 contracts were signed in the amount of 53 626 060 manat provided with businesses entities. The relative share of concluded contracts as for Big Four number 10,8% and as for the amount 68,2%, as for the number of audit firms that use trademarks of foreign legal entities 10,1% and as for the amount 19,4%, as for number of local auditor firms 55,7% and as for the amount 8,3%, as for the number of independent auditors 23,4%, and as the amount 4,1% (Report on the results of the activities of the chamber of auditors of Azerbaijan republic for 2017). Another aspect of the topic under consideration is that over the past decades the very content of the profession of an accountant has changed qualitatively, which causes the need for changes in the system of its professional training.

A modern practicing accountant is a multifaceted specialist, possessing professional competencies of a number of related professions (financiers, economists, lawyers, etc.), able to assess risks and predict the impact of any fact of economic life on changes in the financial position of an organization prior to its completion. One of the important aspects of the professional life of a modern accountant is his knowledge and application of professional ethics (Sitnov A.A., 2017).

The basic part of professional competencies and the future accountant, and the future auditor are obtained in an educational institution where the foundations of independent professional thinking, professional responsibility and relationships should be laid. In this situation, the role of vocational education cannot be overestimated. First of all, a graduate must have a systematic understanding of the subject of his activity, understand accounting information in all its fullness and variety of internal relationships.

The Department of Accounting and Audit of the Azerbaijan State Economic University (UNEC) has a huge experience in the preparation of bachelors, masters, doctoral students in accounting. Specialists who have completed higher accounting education at UNEC, including doctoral students, work in all sectors of the economy, in the scientific and pedagogical field, many of whom have excellent professional skills. Today, according to specialists, there is a great demand in the labor market for specialists who graduated with a degree in Accounting and Audit, the need for which will continue to grow as business management becomes more and more complex and requires a scientific approach. The increase in the scale of managerial tasks facing the management in modern conditions requires further improvement of educational and professional accounting standards in accordance with the requirements of the labor market.

As practice shows, modern graduates are difficult to adapt to specific working conditions, do not know how to work with regulatory documents, apply them in practice, independently find informed solutions in controversial situations, develop internal organizational and administrative documents, including accounting policies. Therefore, it is difficult for them to develop creative abilities, without which there is no real professionalism.

Another part of professional competencies can be obtained only in real, not training or model conditions, it is acquired through the development of its own experience, including the experience of professional relationships with management, subordinates, with external contractors. For example, young professionals, as a rule, it is



difficult to act as a leader, even of a lower level. Their knowledge of accounting management does not go beyond the basics of general management. Therefore, the lack of minimal professional competences in the field of accounting service management is currently a problem.

Thus, the improvement of technology training should include, on the one hand, an increase in the time of practical exercises aimed at the development and consolidation of skills. It is necessary to use various forms of practical training. At the same time, priority must be given either real or model, but as close as possible to the real conditions of practical activity.

On the other hand, it is necessary to qualitatively change the theoretical training, preferring the accounting and analytical disciplines. The teaching of these disciplines should be systematic, providing students with an understanding of the causal relationships in the accounting process and the methodological foundations of information disclosure reporting. In addition, accounting disciplines should be more comprehensive, incorporating features of various sectors of the economy, including the public sector. Teaching analytical disciplines should bring up not a mechanical application of financial position assessment tools, but an informed choice aimed at assessing the continuity of an organization's activities in the foreseeable future.

On September 2, 2004, the Law on Accounting was adopted, thanks to which Azerbaijan approved the main package of regulatory acts governing the activities of accounting entities on the application of new financial statements. In accordance with the Law, all commercial organizations equal to socially significant structures are obliged to apply International Financial Reporting Standards (IFRS), and other commercial enterprises with the exception of small business - apply National Accounting Standards on the basis of IFRS since January 1, 2008. At the same time, municipal bodies, state-financed organizations and extra-budgetary state funds are required to apply National Accounting Standards in accordance with the International Public Sector Accounting Standards (IPSAS) starting January 1, 2009. To ensure the set of measures for the application of the Law on Accounting, by Decree of the President of the Azerbaijan Republic of February 7, 2005, the Ministry of Finance was entrusted with the authority to exercise state regulation in the field of accounting. The main objective of this regulation is the development of a set of measures to coordinate the provision of coordinated actions for the presentation of more transparent and high-quality financial statements by accounting entities prepared on the basis of financial accounting and compliance with international requirements. In connection with recent significant changes and additions made to the Law of the Republic of Azerbaijan "On Accounting", the problems of the planned implementation of International Financial Reporting Standards to strengthen the legal basis of accounting in Azerbaijan, form the necessary institutional mechanisms, and align systems of training and professional development of accountants (The Law of the Republic of Azerbaijan "On Amendments to the Law of the Republic of Azerbaijan "On Accounting", May 04, 2018).

Since 2004, i.e. since the adoption of the "Law on Accounting" in Azerbaijan (prepared with the direct participation of the World Bank), which prescribed a mandatory transition to the accounting and reporting system in accordance with International Financial Reporting Standards (IFRS), reform in Azerbaijan is implemented at a very high rate. The transition to IFRS is carried out under the leadership of the Ministry of Finance of Azerbaijan and with the active participation and financial support of the World Bank. In particular, the project "Corporate and Public Sector Accountability Project", funded by the Government of Azerbaijan together with the World Bank, as well as with the participation of the Secretariat of Switzerland and the Government of Japan, has been launched today.

The work on the translation of IFRSs according to the version of 2011 into the Azerbaijani language, as well as on the approval of these translations as official texts in the Fund of the Committee on International Accounting Standards; translated 32 International Public Sector Accounting Standards (IPSAS); translated IFRS for Small and Medium Businesses, according to the version of 2009; "Collection of international standards for quality



control, audit, review, assurance and related” has been translated, (Part 1,2) according to the version of 2012; translated International Education Standards for professional accountants according to the version of 2010;

37 National Accounting Standards for commercial organizations were developed and approved on the basis of IFRS according to the 2011 version, and Comments and recommendations on the implementation of approved standards for commercial organizations were developed and approved; 32 National Accounting Standards for budgetary organizations and extra budgetary state funds, as well as 1 National Standard for non-governmental (public) organizations in accordance with the International Public Sector Accounting Standards (IPSAS) were developed and approved; a program for the transition to IFRS for structures of public interest has been developed and approved; developed and approved rules for the provision of financial statements, as well as approved the reporting period for commercial, budgetary, non-governmental and municipal organizations.

In the course of an audit, the auditor should obtain sufficient audit evidence about the acceptability of the quantities available for quantification and the accuracy of their calculation in the financial statements. Experience with auditing shows that finding evidence that corresponds to quantitative measures for comparative quantities is relatively complex and can rarely be unambiguously interpreted compared to evidence supported by other items in the financial statements. In our opinion, when checking the performance indicators, the auditor should observe the following sequence:

- general and detailed review of the procedures used by the management of the audited entity to assess performance indicators (taking into account their assumptions). If credentials are used, they must match each other and not contradict other statistical information. At the same time, the results of previous periods should be compared with the actual results of the reporting period, and the documentation of the calculations should be analyzed by the management of the audited entity, as well as by the procedures for the approval of estimated indicators;
- subsequent events, including events that occurred after the reporting, should be checked in order to confirm the correctness of the performed calculations. Thus, events and operations that occurred at the end of the reporting period, but before the completion of the audit, can be used as evidence of performance indicators calculated by the management of the audited entity.

In our opinion, when evaluating performance indicators at the final stage, the auditor should determine the degree of assessment of the use of analytical procedures. For this purpose, it is advisable to use an analytical coefficient (C^{aa}) of performance indicators, which can be calculated using the following formula:

$$Caa = \frac{\sum C^{AP} T^{AP}_I}{\sum CD^{AP} T^{DAP}_I}$$

Here C^{AP} - the number of analytical procedures used in the audit of performance indicators; T^{AP}_I - the amount of time spent on conducting analytical procedures; CD^{AP} - the number of other audit procedures used in the audit, other than analytical procedures; T^{DAP}_I - shows the amount of time spent on other audit procedures (except for analytical procedures).

One of the most important and responsible aspects of auditing is the evaluation of the performance of its management and the ability of the enterprise to continue its activities. The likelihood of continued operations is one of the fundamental principles for preparing financial statements - ISA 570 “Going concern”. The auditor to assess the likelihood of continuous continuation of the enterprise, it is advisable to use financial, operational and other mandatory and relative indicators (such as repayment ability, circulation of current assets and diagnosis of the probability of insolvency).



The business valuation methodology involves the use of three approaches — income, comparison, and cost methods. In our opinion, when calculating the value of a business, it is recommended to use the following formula:

$$PV = \sum_{i=1}^t \frac{CF_i}{(1+DR)^i} + \frac{FV}{(1+DR)^t}$$

Here PV is the (business) current value; CF_i - period income i; FV - increased cost; DR - discount rate; t is the last year of the forecast period; i - indicates the number of the forecast period.

The main purpose of accounting and financial reporting is to identify the facts of distortion in accounting and financial reporting, as well as assess the impact of distortion on financial performance. Two important aspects of the auditor's activity in ISA 450 "Evaluation of misstatements identified during the audit" are the effect of the errors found on the auditor's opinion; the impact of unreliable errors (if any) on a company's financial statements. The study showed that the distortions are mainly related to financial results, resources and tax payments (reduction of profits due to artificial reduction of income and seizure of assets). Grouping fraudulent financial statements allows you to select and apply the analytical procedures used to identify them. To solve this problem, it is advisable to use the "Map of the normative payments of financial indicators", prepared by professor W. Bennis.

Results, Conclusions and Recommendations

The professional education of accountants should be continuous throughout the professional career. It is necessary to develop the acquired competencies within the framework of additional professional education and self-education.

At the sub-accounting level, it is possible to note the compilation, recording of initial documents, processing of register data and conclusion of business results. A higher level includes the compilation of financial (accounting) statements, tax accounting, cash management, and financial analysis issues. According to the expert according to the criteria, mentioning the importance of labor functions in each level (sub-level) can help to get a clearer picture of each level. It is impossible to demand that all economic entities immediately follow the criteria, this can lead to undesirable results. It is no secret that, with accounting, especially on business entities there are serious shortcomings. If one can put it this way, tax accounting harassing accounting has come forward. But the last performance of the new leadership of the Ministry of Taxes and recent actions of the Ministry of Finance gives the first signals that, starting next year, serious steps will be taken.

In Azerbaijan, there are many competent and experienced accountants who know the new standards, but in any case, every accountant must have the knowledge and experience corresponding to his job functions, and applying the highest standards to all is wrong. Since January 1, 2010, the auditor has implemented international audit standards.

In large organizations, as a rule, there is a more detailed division of labor, and an accountant objectively cannot be a broad-based specialist. However, the work of the chief accountant in a large organization has its own specifics, which determines the increased qualification requirements for a specialist. Specificity is:

- to expand the powers and responsibilities of the chief accountant in connection with the increase in the scale of activity of the economic entity;
- the need to solve more complex problems of organizing the formulation and maintenance of accounting and the preparation of accounting (financial) statements;
- the need to ensure a unified methodology of the accounting process.



References

- ACCA. F8 Audit and Assurance - Revision kit (2017-2018), BPP Learning Media Ltd, 2017, [http:// www. accaglobal. com / en / qualifications / glance / acca / details](http://www.accaglobal.com/en/qualifications/glance/acca/details), 218-219.
- Bychkova, S.M. and Itygilova, E.Yu. (2007), Mezhdunarodnye standarty audita: uchebnoe posobie [International Standarts on Auditing: A Training Manual]. Velbi, Prospekt, Moskva, Russia, 16-25
- Bychkova, S.M. and Itygilova, E.Yu. (2008), The essence and content of audit standarts, MSFO i MSA v kreditnoy organizacii. Moscow, vol.2, p 78-99; vol.3, 87-100.
- Deloitte development LLC (2010), Continuous monitoring and continuous auditing from idea to implementation. URL: <https://www2.deloitte.com/content/dam/Deloitte/uy/Documents/audit/Monitoreo%20continuo%20y%20auditoria%20continua>, 7-9.
- Association of Certified Fraud Examiners. 2007. Cooking the Books: What every accountant should know about the fraud: Self-Study Workbook, 1-10.
- Erofeeva, V.A. Piskunov, V.A. and Bityukova,T.A. (2015), Audit: uchebnoe posobie [Audit: A Training Manual]. Jurayt, Moscow, Russia.
- Mezhdunarodnye standarty finansovoy otchetnosti (2010), [International Financial Reporting Standarts]. Askeri-ACCA, Moscow, Russia.
- Report on the results of the activities of the chamber of auditors of Azerbaijan republic for 2017, http://audit.gov.az/uploads/Hesabat_illik_2017.pdf 14-15.
- Sitnov, A.A. (2017), Mezhdunarodnye standarty audita: uchebnik [International Standarts on Auditing: A Textbook]. Yuniti, Moscow, Russia, 32-42.
- The Law of the Republic of Azerbaijan “On Amendments to the Law of the Republic of Azerbaijan “On Accounting” (May 04, 2018), № 1140-VQD, 6-7.



Peculiarities of State Funding Priority Educational Programs and Expense Efficiency

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Abstract

Education is an important priority for the country, that should be given special importance and attention. It defines country's progress and economic advancement. High quality education is a guarantee of social consolidation that promotes welfare and personal, social and professional development. All this can be achieved by rational use of state financial resources. In order to evaluate the efficiency of the expenditures incurred by the state, it is necessary to examine the segment of the funding. The objective of the topic is to identify the major shortcomings in the existing higher education funding system and to provide ways and directions to solve problem. All of this is discussed by the analysis of international practice, which is based on experienced and established approaches in time, because higher education financing is not limited to the extent of financing, but also the social environment, which is historically established in a particular state or region, so this research should be carried out by considering the profound and compelling factors. Analysis of international practice illustrates the deficiencies in Georgia in this regard. Higher education and financing in Georgia are very small and far behind the international standard. The increase in financing can not itself be considered as a step forward if we can not determine the acceptable results, which should be based on systematic monitoring of the labor market.

Keywords: Higher education, Funding models, Human capital, EU, Georgia

Introduction

In the modern stage, the higher education system of any country should be based on the country's welfare requirements, While its priority directions should be financed based on labor market analysis. 145,494,763 GEL is spent from the state budget 2013-2018, for the priority directions (agricultural sciences, education, engineering, natural sciences, social and humanitarian sciences) defined by the Higher Education Policy of Georgia. It should be noted that the number of those enrolled in the state-funded priority educational programs in Georgia is growing every year (Fig. 1).

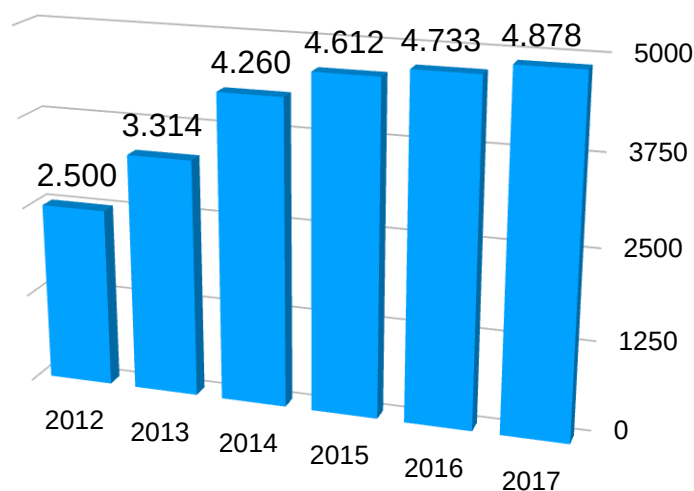


Figure 1: Number of enrolled students

Source: It is drawn up by authors, based on the data of the Ministry of Education



However, the necessity of growing flows of philologists, chemists, archeologists, and even economists are still controversial. Of course, several questions arise about this topic: How much the current funding model is oriented on the state priorities and the labor market. More so that the standard demands of the program budget-evaluation of the implemented programs and formation of assessment indicators, are not yet implemented.

The purpose of the work is to assess the efficiency of funding priority directions, analysis of achieved results, efficiency of evaluation indicators and the compatibility of the priority directions with the labor market requirements.

Methodology

During the research process we used qualitative and quantitative methods of data collection. The legislative acts were also studied and analyzed. By using the stratified method we selected one of the highest rated Georgian university and we started to analyze documentary information and database. Based on graduates survey we calculated Public IRR. In the higher education system of different countries, the public IRR is used to measure the benefit of the economic aspect. IRR is the ration between the expenditure incurred by the state on higher education and the estimated revenues from employment. As a rule, such expenses of the state should be profitable in the long run. In particular, people with higher education will be employed on higher income positions and thus will be able to mobilize more budgetary income in the form of income tax. The methodology selected by the Organization for Economic Cooperation and Development (OECD) has also been used:

$$IRR = \sum \frac{Future\ income}{\Sigma(1+r)^t} - Initial\ investment, \text{ Where}$$

Future income corresponds to the salaries of the graduates, until the retirement age. The employment rate is 42.3%; Average salary is 895 GEL (National Statistics of Georgia, 2019); The percentage of employees employed by their profession is X%; r - interest rate; t% which reflects the level of inflation in the country (target) t = 4,3; The initial investment involves the expenditure incurred by the state for 4 years (program funding + grant).

Literature Review

Since the state is the largest investor in the education system, the investment in education should bring benefits. According to Abuselidze (2019) the economic relevance of the profit should be social reversal, in which we mean the rate of the expenses incurred by the state to higher education with the estimated revenue received from employment. This coefficient determines the efficiency of investments on education by the state. For the purpose of spending (Abuselidze, et al., 2018) product funds effectively, it is reasonable to change the funding model.

Taking into consideration international practices, criteria should be elaborated, which will take into account the qualitative indicators and the number of students in granting financing to higher education institutions. The Organization for Economic Cooperation and Development (OECD) in the study "The Importance of Higher Education for the Educated Community" presents the models of higher education system introduced by European countries, analysis of financing and monitoring system used by various states. In the study "Higher Education Review" it is analyzed the measurements of higher education achievements and benefits connected with economic perspectives in different states.



Also, In the European Commission survey "Funding of higher education" it is analyzed the model of determining the number of directions and students financed in the Higher Education System of the Czech Republic and Germany This country represents a specific and peculiar case for studying due to the fact that it is profound in higher education as well as excels in economic performance (Hüther & Krücken, 2018). There are a number of studies that deal with the education as a form of return on investment in human capital (see e.g. Blanchard & Olney, 2017).

According to volchik et al. (2018) in a situation when the globalization of the markets and localization of science related industries make tertiary education vital for economic well-being of the countries, the interdependence between the tertiary education and economic performance becomes apparent. As economic growth becomes more dependent on high-technology industries universities get function of main source of the R&D-based growth (Guerrero et al. 2015; Marozau et al., 2016; Fägerlind & Saha, 2016).

According to the Basic Data and Directions Document (BDD) of 2019, the state model of higher education financing is focused on strengthening the directions and specialities that are related to the development of the country and strengthening of the social life and Country's economy (BDD, 2019, p. 38). According to the Resolution of the Government of Georgia (N167), supporting the development of higher education system is important for the effective functioning of the labor market, stimulating employment and reducing unemployment (State Strategy on the Formation of Labor Market of Georgia, Article 3, Paragraph 3.5). The purpose and amount of granting of software financing on higher education institutions is regulated by the Ministry of Education and Science of Georgia (Order 79 / N., June 24, 2013).

Research

Funding of higher education can be mainly from two sources: 1) State Budget Funding (State Grant); 2) Private funding (co-financing) (Abuselidze et al., 2017, p.). In both cases the purpose of financing should be the development of priority software directions and the promotion of targeted use of intellectual potential. According to the program (state) budget and the calculation of the financing of the priority directions the annual funding of each priority program was up to 33,750 GEL by 2017, and it was accredited by 15 students enrolled in the university, and after each of the 15 students, for each of the 6 students 11250 GEL was distributed annually. As a result in the 2013-2017 academic year 145,495 million GEL was spent on the priority programs of higher education, where the cost of program financing is 129,534 million GEL and state education grants is 15, 960 million GEL (Fig 2).

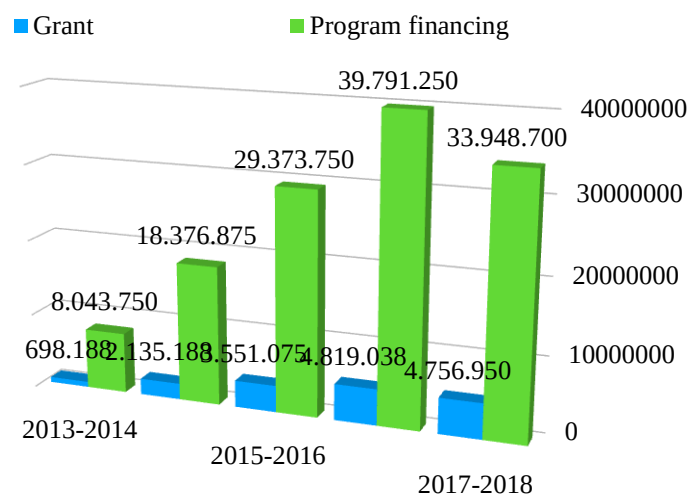


Figure 2: Funding of the priority programs



Source: It is drawn up by authors, based on the data of the Ministry of Education

Since 2017, as a result of the modification of the funding model, it is inadmissible to fund the full scholarship of students with state education grants. In particular, if the student enrolled in the undergraduate educational program received a part of the state education grant within the program funding, his tuition fees will be filled up to the amount of tuition fees determined by the university, but no more than 2,250 GEL. (Order No.135 / n of the Minister of Education and Science of Georgia - "On Approval of the Rules and Conditions of Issuing Program Funding for Higher Education Institutions by the Ministry of Education and Science of Georgia in the 2017-2018 Academic Year").

Over the last decade, about 70% of the total budget of the state higher education institutions in Georgia is complemented by students and their families as a tuition fee, the rest 30% is provided by the state. While in the developed countries this indicator is the opposite- Approximately 70% of the state budgets are financed by state funds and 30% from other private sources.

3.1 Priority Programs Planning Models: Problems and Prospects

Development of priority directions for education in post-Soviet countries and especially small economies countries are the most difficult causion. According to the Fiscal Framework of 2017 the definition of higher education priority directions and the basis for financing is the labor market analysis. According to the EU practice, priorities in higher education system are tailored to the needs of the country. In particular, for the effective functioning of the labor market, the growth of employment and the reduction of unemployment is necessary to support the development of the higher teaching system. For example, in the Baltic countries, during the determining the priority directions public requirements and interests of the country are taken into consideration. (The Strategic Plan for the Scholarly, Scientific, Research, Development and Innovation, Artistic and Other Creative Activities of Higher Education Institutions for 2016–2020, pp.15-19).

During the process of determining the priority directions in Georgia, it is very difficult to determine the convergence between higher Education directions and country needs. When at this period there is no proper research of the labor market in the country. Therefore, the compatibility between the priority directions and labor market requirements is not proven and it disagrees with EU standards. The reason for this shortcomings is in our opinion that there is no mechanism according to which the priority direction presented by the university will be assessed. Time by time the risks are rising that the direction chosen by the higher education institution is not adjusted to the country's goals or the requirements of the labor market.

These challenges include the increasing cost of education, government policy and regulation covering issues such as standards and financial aid, lack of adequate financial resources, lack of physical infrastructure (Drape et al., 2016), depreciating value of the college degree, technological changes, lack of alignment of curriculum and university agenda to the demands of the labour market (Sharma & Sharma, 2015), and the role of extra-curriculum activities in education (Ramaley, 2014).

To illustrate above mentioned we implemented a comparative analysis of the number of students financed by the Ministry of education and the number of problematic job opportunities for the labor market.

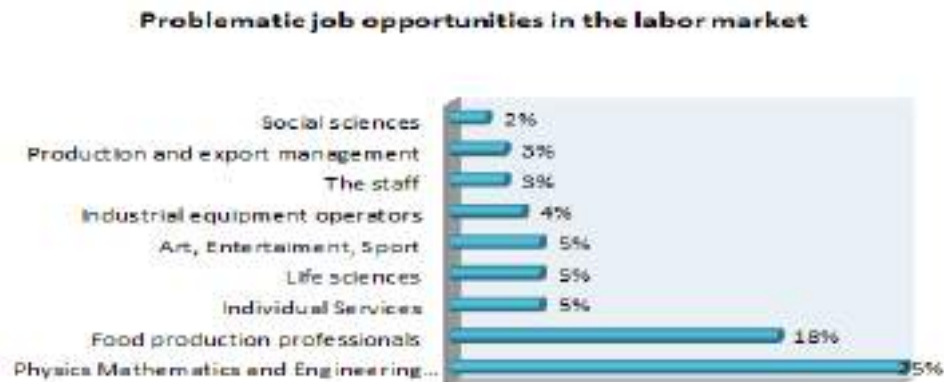


Figure 3. Problematic job opportunities in the labor market

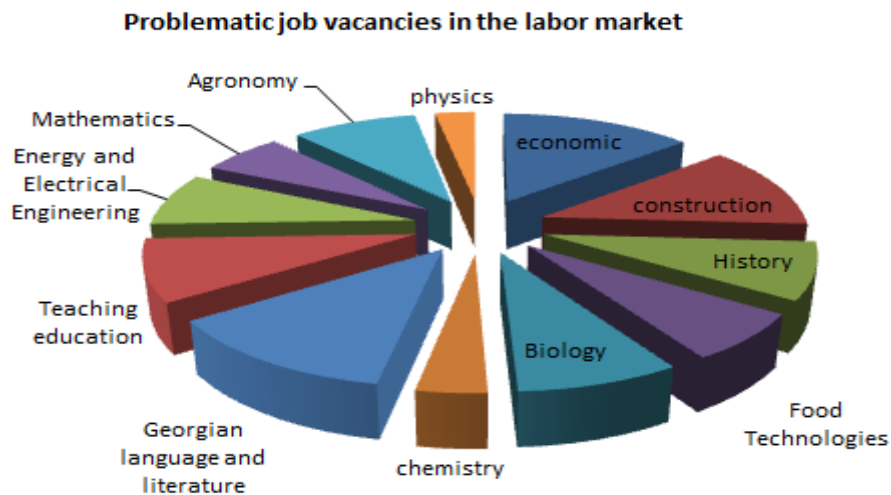


Figure 4. Problematic job vacancies in the labor market

The Figures show that in determining the number of students, labor market trends are not taken into account (Abuselidze, 2019). Specifically, the most problematic areas are occupied by the last places, and at the first place there is economy – with the highest number of places. Also, the number is not proportional to the graduate employment indicator. Within the survey, by using a stratified methods, academic performance of third-year students 6 economics specialization has been studied. As a result, it is estimated that the GPA of about 31% of students is less than 2 (maximum possible GPA is 4). It means that 1/3 of the students are not very interested in studying and the educational program does not expect to be prospective. (The survey of university students reveals that most of the respondents consider the program to be unperspective). The outcome of this study clearly demonstrates our above mentioned hypothesis that students are selecting programs that are funded by the state but not by the desire to master the profession, but by the fact that education is free.

The worst results are the students of the Faculty of Education, the specialty of which is funded by the state. From the four courses of Bachelor's Study, 325 students' GPA were studied. The survey revealed that GPA of 61% of students are lower than average level.

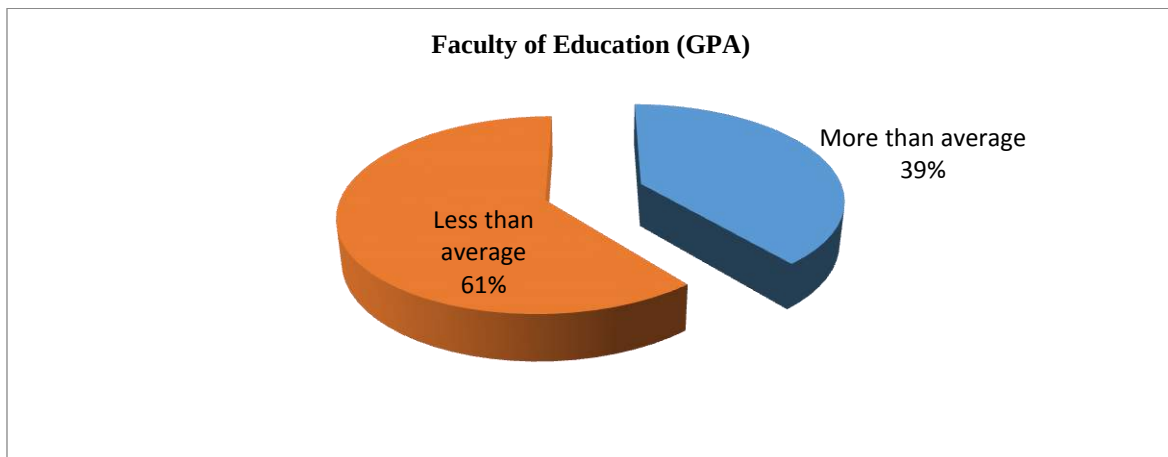


Figure 5

Source: Drafted by the authors based of the data of the University Quality Assurance Service

We Separated the assessment of the freshmen because since the first course will learn basic general subjects such as psychology, philosophy, history, etc. The student's interest in these subjects should be more therefore, their assessment should be higher but the real picture is the opposite.

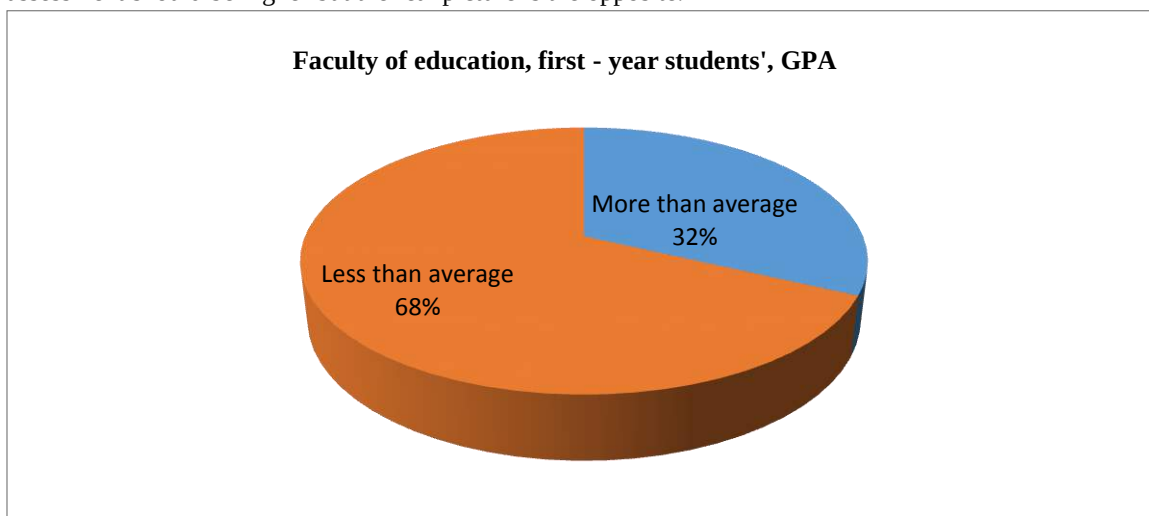


Figure 6

Source: Drafted by the authors based of the data of the University Quality Assurance Service

The results show that the state's funds are spent ineffective. A student who performs an educational program is completely uncompetitive, because he does not possess sufficient knowledge and skills, plus lack of job opportunities, and most graduates are simply unemployed. For the economic and social development of the country it is important to employ graduates with their own profession. Important Goals of financing the priority directions of higher education is to prepare students for professional work and to use existing intellectual capital wisely (Order N81 / n of the Ministry of Education and Science of Georgia, Article 2).

One of the main indicators of the effectiveness of funding of priority programs should be the employment index. Which, in our opinion, confirms the efficient connection of the priority program with the labor market requirements and shows the level of social recoveries. In this regard, according to an analysis of the situation in the 28 countries of the EU in 2017 (Eurostat, 2019), it is estimated that the average employment rate for people



with higher education in the last three years is 82.8%. The highest rate was in Malta - 94.5% and in Germany - 90.9%, while the lowest rate was in Greece - 52% and Italy - 55.2%. Only 41% was in Georgia. In addition, the average employment period of graduates is 6 months, and the most frequent recurring period is one month.

According to the Organization for Economic Cooperation and Development of Europe, the average social indicator in European countries is 15% (Education at a Glance, OECD 2018), while in Georgia the result is only 7.7%. According to Georgia's audit data, compared with the general index of European countries and those countries that are relatively close to Georgia the level of benefit received within the program is low (Georgian audit, 2019).

Based on the above mentioned, a small portion of the graduates are engaged in their profession and budgetary financing for them is ineffective. Determining the priority directions and determining the number of students without taking into consideration trends and data increases the risk of structural unemployment. In addition, it is revealed that, unlike international practice, the Ministry has developed a system based only on a criterion whose calculation is based only on historical experience and does not provide qualitative indicators. This creates a precondition that universities receive fixed funding despite the number of students and their academic performance, that is why the university will receive program financing in a fixed amount, even if the specified places are not filled in full. Therefore, the Ministry of Education has not developed a procedure for determining the number of students eligible for the higher education priority direction. Which means setting up a uniform system in determining limits according to the curriculum and determining the number of students admitted by universities. While the number of student applicants in the Baltic States is determined by qualitative indicators (European Commission, 2019), such as the results of scientific activity in the specific direction, the qualification of the academic personnel, the student mobility and graduates employment indexes, etc. The number of students eligible for a specific educational programs funded by state will be determined based on the analysis of these indicators.

According to Volchik et al (2018) As such, in order to succeed, universities have to recognize these challenges and formulate and implement corrective actions. Therefore, the reason of the flaws in the financing of the priority programs is the funding model, and the fact that there is no analysis of the results achieved within the program and the appropriate reaction does not occur. All above mentioned would allowed the limits to be distributed between universities and the existing financial resources would be used for financing more students or other programs.

3.2. International practice of financing higher education

EU countries are characterized by using facilitation model focused on strengthening institutional freedoms and strengthening accountability mechanism between higher education institutions. There are two models of facilitation (Tertiary Education for the Knowledge Society Volume 1 p.90): 1. Universities have academic freedom but subject to state control; 2. Universities are fully independent, but have the responsibility to contribute to the implementation of the state objectives. At this time, accents are made on what mechanisms should be used to make the HEIs more accountable to contribute to achieving public goals. To achieve this, the monitoring system has been implemented to analyze the interim and final results of functioning HEIs, which implies permanent reporting of their activities to the Ministry, these models are available in Dutch and Anglo systems - Great Britain, the United States, Canada, New Zealand and Australia. The mechanism of higher education financing in EU countries consists of many factors. At the time of funding it is important to improve teaching quality, to increase the rate of successful students, to establish institutional profile and to increase the diversity of educational programs. Each university in the contract indicates how it is going to improve these indicators (European Commission, 2018). Evidently, this system bears all the essential features of a best practices and benchmarking philosophy, which as Zairi (2010) observed, involves identifying key performance



indicators or metrics for assessing performance. In this case particularly, the metrics or the parameters used in the ranking are derived from the core mission of institutions of higher learning, including teaching, research, knowledge transfer, and international outlook (Gunter and Raghuram, 2018; Radwan, 2018).

Based on the aforesaid criteria, the government uses mainly a block funding method, wherein a lump sum allocation is given to the country's public universities based on the number of students enrolled multiplying a student unit cost by the total number of students within a given university (Fussy, 2017). According to Kyvik and Lepori, for most Western universities, allocation of funds to universities sometimes is a negotiation between the state and higher education institutions and allocation is made based on performance measure or calculated through a formula (Kyvik & Lepori, 2010).

In the form of financing, countries are increasingly using qualitative indicators. In particular, Belgium, Czech Republic, Finland, Holland, Portugal, Spain use qualitative indicators. And Sweden and Switzerland focus on the number of credits accumulated by students and the average duration of learning. The Netherlands uses the measurements of used resources (INPUT) and achieved results (OUTPUT). Some countries also provide the labor market requirements for financing. Finland, for example, based on the labor market forecasts, distributes financial resources between universities and curriculum. While in Estonia, the need of specialists with higher education quality on the labor market is taken into account. In Thailand, for example, the government initiated higher education reforms to cut public spending and to stimulate university–industry cooperation as a means to obtain additional university income (Schiller & Liefner, 2006). Similarly, in Europe, universities which were publicly funded by the state and traditionally specializing in both teaching and research are said to be under pressure to review their missions as a coping strategy to financial austerity in all public-sector services (Pierson, 2001). This trend has affected many countries and has been a significant fall even in advanced countries such as the United Kingdom, Australia, and New Zealand. The education financing system at any level of education invariably requires a set of effective mechanisms for generating education revenue and fund allocation formulae, which are actually methods of allocating funds (Galabawa, 2005).

This, in our view, is possible through the program budget methodology, by implementing programs orienting on results. In our opinion, the components of financing formulas should be:

- * Basic funding component - 37%;
- * Component of results (calculated by the number of diplomas) - 50%;
- * Component of students' number - 13%.

4. Conclusions and recommendations

The current model of higher education financing in Georgia is based on one criterion. The number of students and does not provide qualitative parameters. As a result, the state financial resources are distributed among the universities according to the number of students, which induces the inefficient spending of budget resources. Due to improper coordination between state structures, higher education institutions and employers during the process of determining each priority direction, the need of specialists in this field is not assessed properly, also monitoring of the achieved results and efficiency of the program is not implemented. Consequently, there is no need to adjust the funding rules and priority directions needs. For the reduction of structural unemployment risks, it is necessary to define the number of students to be financed. In order to spend budget resources efficiently, it is necessary to develop a model of software financing where qualitative and quantitative indicators will be used.

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References

- Abuselidze, G., & Mikeladze, M. (2017). The Role of Program Financing in the System of Higher Education. *Institute of Economic Research*, No.4.
- Abuselidze, G., Devadze, N., & Kakhidze, T. (2018, September). About One Mathematical Model of Project Management. In *2018 IEEE East-West Design & Test Symposium (EWDTS)* (pp. 1-4). IEEE. doi: 10.1109/EWDTS.2018.8524622
- Abuselidze, G., & Mikeladze, M. (2019). Analysis of the results of program financing in the higher education system of Georgia and improving tendency of assesment indicators. *Proceedings of 11th International Conference on Education and New Learning Technologies (EDULEARN 19)*
- Blanchard, E. J. & Olney, W.W. (2017). Globalization and human capital investment: Export composition drives educational attainment. *Journal of International Economics*, 106, 165-183. doi: 10.1016/j.jinteco.2017.03.004
- Drape, T. A., Rudd, R., Lopez, M., & Radford, D. (2016). Challenges and solutions to higher education institutions in Africa. *International Journal of Education*, 8(1), 43-58. doi: 10.5296/ije.v8i1.8742
- European Commission, (2018). Higher Education Funding. *Eurydice*. Retrieved from: https://eacea.ec.europa.eu/national-policies/eurydice/content/higher-education-funding-53_en
- European Commission, (2019). Higher Education Funding. *Eurydice*, Retrieved from: https://eacea.ec.europa.eu/national-policies/eurydice/content/higher-education-funding-21_bs
- Eurostat, (2019). Employment rates of recent graduates, Retrieved from: https://ec.europa.eu/eurostat/statistics-explained/index.php/Employment_rates_of_recent_graduates
- Fagerlind, I., & Saha, L. J. (2016). *Education and national development: A comparative perspective*. Elsevier
- Fussy, D. S. (2017). Policy directions for promoting university research in Tanzania. *Studies Higher Education. Advance online publication*. doi: 10.1080/03075079.2016.1266611
- Galabawa, J. C. J. (2005). *Returns to investment in education: Startling revelations and alterations before Tanzanians (Professorial Inaugural Lecture Series, No. 45)*. Dar es Salaam, Tanzania: University of Dar es Salaam.
- Guerrero, M., Cunningham, J.A., & Urbano, D. (2015). Economic impact of entrepreneurial universities' activities: An exploratory study of the United Kingdom. *Research Policy*, 44(3), 748-764. doi: 10.1016/j.respol.2014.10.008
- Gunter, A., & Raghuram, P. (2018). International study in the global south: linking institutional, staff, student and knowledge mobilities. *Globalisation, Societies and Education*, 16(2), 192-207. doi: 10.1080/14767724.2017.1401453
- Huther, O., & Krucken, G. (2018). *Higher Education in Germany – Recent Developments in an International Perspective*. Springer International Publishing.
- Kyvik, S., & Lepori, B. (2010). The research mission of higher education institutions outside the university sector. *Higher Education Dynamics*, 31, pp. 295-316. doi: 10.1007/978-1-4020-9244-2_4
- Marozau, R., Guerrero, M., & Urbano, D. (2016). Impacts of universities in different stages of economic development. *Journal of the Knowledge Economy*, 1-21. doi: 10.1007/s13132-016-0359-7
- National Statistics of Georgia, (2019). Higher Education. Retrieved from: <https://www.geostat.ge/en/modules/categories/61/higher-education>
- Pierson, P. (2001). *Post-industrial pressures on the mature welfare states*. In P. Pierson (Ed.), *The new politics of the welfare state* (Vol. 1, pp. 80-105). New York: Oxford University Press.
- Radwan, A. (2018). Science and innovation policies in North African Countries: Exploring challenges and opportunities. *Entrepreneurship and Sustainability Issues*, 6(1), 268-282. doi: 10.9770/jesi.2018.6.1(17)
- Ramaley, J. A. (2014). The changing role of higher education: Learning to deal with wicked problems. *Journal of Higher Education Outreach and Engagement*, 18(3), 7-22.
- Sharma, S., & Sharma, P. (2015). Indian Higher Education System: Challenges and Suggestions. *Electronic Journal for Inclusive Education*, 3(4), 6.
- Schiller, D., & Liefner, I. (2006). Higher education funding reform and university–industry links in developing countries: The case of Thailand. *Higher Education*, 54, 543-556. doi: 10.1007/s10734-006-9011-y
- Volchik, V., Oganessian, A., & Olejarz, T. (2018). Higher education as a factor of socio-economic performance and development. *Journal of International Studies*, 11(4), 326-340. doi:10.14254/2071-8330.2018/11-4/23
- Zairi, M. (2010). *Benchmarking for best practice*, Routledge, London.



Cognitive competences of preschool children in relation to their gross motor skills

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Abstract

Children need a wide range of skills to transition successfully to formal schooling. Promoting children's readiness for school is an important societal and it should be also governmental priority. There are known strategies such as grants or projects aimed on this problematics in the world, but not in the Czech Republic. However, the evolvement of motor skills (independent locomotion) enables the child to explore the environment, that leads to new and differentiated cognitive concepts, this problematics is still not in the center of interest in the Czech professional society. Researchers worldwide have not explained adequately how motor skills are connected with cognitive competences. Therefore, the aim of the project is to assess the relationship between the level of gross motor skills of pre-primary aged children and their cognitive competences. The research group consisted of 100 children from Czech kindergartens at the age $5,74 \pm 0,71$ years. For the assessment of gross motor skills was used standardized TGMD-2 test battery. The cognitive competences of a child were assessed by the standardized test, which is mapping child's readiness for school attendance (MaTeRS). The Ethics Committee approval of the author's department was obtained for the research. The participation of the child in the research was voluntary, anonymous, free of charge and with the possibility to withdraw from the research anytime. The data was obtained within the project IGA_PdF_2019_015. The findings could have implications for government and teachers to focus more on development of cognitive and motor skills in preschool children.

Keywords: cognitive ability, motor skills, children, preschool

Introduction

The link between motor and cognitive performance is supported by several studies indicating that cognitive and motor skills share overlapping neural mechanisms and draw on common resources (Michel, Roethlisberger, Neuenschwander & Roebbers, 2011; Piek, Dyck, Francis & Conwell, 2007). Stöckel & Hughes also suggest that cognitive and motor skills are linked. Studies that directly tested the relation between global aspects of motor skill and cognitive performance have reported only weak associations between these two processes (Roebbers & Kauer, 2009; Wassenberg et al., 2005). The problematics of motor skills and their improvement in connection with different areas of pre-school children competences and behavior is recently in the interest for many researches (Lestari, Ratnaningsih, 2016; DuBose, McMillan, Wood, Sisson, 2018; Famelia, R., Tsuda, E., Bakhtiar, S., Goodway, 2018; Obrusnikova, Cavalier, 2018; Mancini, Rigoli, Roberts, Heritage, Piek, 2018). Research in this or similar area is in the Czech Republic rather neglected. Although many researchers suggest the importance of fundamental motor skills (Lubans, Morgan, Cliff, Barnett, Okely, 2010; Haga, 2008; Lopes, Santos, Pereira, Lopes, 2013), there are no complex studies and this area is still evolving. MacDonald, Lipscomb, McClelland, Duncan, Becker, Anderson, Kile (2016) mention that object control skills, which are part of gross motor skills, have modest to moderate relations with executive function and social behaviors in preschool year. These factors, therefore, can influence school readiness and beginning of compulsory school attendance. The importance of fundamental or basic motor skills for adaptation on school environment demonstrate also Suggate, Pufke, Stoeger (2016) in their study. Van der Fels, Wierikea, Hartmana, Elferink-Gemsera, Smitha, Visscher (2015) deal with systematic review about motor skills and cognitive skills but in a huge age category (4 - 16 years). The authors confirmed that there was either no correlation in the literature, or insufficient evidence for or against many correlations between motor skills and cognitive skills. Therefore, the



aim of our research is to find out the relationship between motor skills and cognitive competences in preschool children. The following questions were solved within the research:

1. Is there a relationship between gross motor skills and cognitive skills in pre-school children?
2. Is there a difference in the level of gross motor skills in terms of gender?
3. Is there a difference in the level cognitive competences in terms of gender?

Method

A research group consisted of 100 children (50 boys, 50 girls) at the age of 5.26 ± 0.45 years from kindergartens as part of compulsory pre-school attendance. Compulsory pre-school education in the Czech Republic applies to children who reach the age of six in the following school year and are this type of education leads to compulsory primary school education. Primary school education starts the child after reaching the age of six. For the participation in the research group was chosen intentional selection, where the criterion for inclusion was the level of gross motor skills of pre-school child in the category above-average to superior. The research was approved by the Ethics Committee of the Pedagogical Faculty of Palacký University in Olomouc and implemented as part of the IGA_PdF_2019_015 project. The child was placed in the research after signing written agreement of his / her parents / legal representatives and after the approval of the management of kindergartens. The participation in the project was voluntary and free of charge. The anonymity of the data was declared and guaranteed to all participants. Testing was done within inner spaces of kindergartens, in accordance with manuals for work with selected methods and techniques of research work. Children may have asked questions during the testing, could at any time temporarily interrupt or leave the research based on their decision or decision made by their parents/ legal representatives. Children's responses were observed and, in case of a negative reaction, testing was interrupted or ended. The level of motor skills was determined by the TGMD-2 test (Ulrich, 2000), which monitors the level of locomotor and object control skills. The result is a standard score that is converted from rough score based on the child's age and gender. The standard score is converted to Gross Motor Quotient (GMQ), which is an indicator of the final level of gross motor skills. Based on GMQ, the level of motor skills is assessed in the following categories: very superior (>130 points), superior (121–130 points), above average (111–120 points), average (90–110 points), below average (80–89 points), poor (70–79 points) and very poor (<70 points). For the evaluation of cognitive skills the test MaTeRs (Vlčková & Poláková, 2013) was used. MaTeRS serves for the evaluation of so-called school readiness of a pre-school child in the area of fine motor skills. Part of the test can be administered in groups (max. 8 children), the second part, which follows immediately, requires individual examination. The result in each subtest is a rough score, which is calculated based on the child's age as a weighted score. The sum of the weighted scores is converted into an overall cognitive assessment (categories 0-5), where 0-2 means not ready for compulsory schooling, category 3 represents the minimum school readiness, category 4 stands for school readiness with slight exceptions and 5 means the child's readiness to attend school without exceptions. The relationship between cognitive competences and the child's gross motor skills was correlated. Gender differences in gross motor and cognitive competences were evaluated by t-test. The level of significant importance was declared on $p < 0.05$. Data were processed by software STATISTICA, version 13.4.0 (Tibco Software, Inc., 2019).

Findings

As it was said above, only children with higher level of gross motor skills than average were chosen for the research. Detailed categorization according to gross motor skills can be seen in Table 1. From the results is clear, that girls achieved better results in gross motor skills. Also statistical processing confirmed statistically significant differences $p=0,002$ by using t-test. Mean value for boys was 129,70 and for girls 133,82 points of GMQ (Table 2).

Table 1. Number of children according to their GMQ level (n=100)

Very superior	Superior	Above average



All	49	50	1
Boys	19	30	1
Girls	30	21	0

With closer look on two subtest of motor skills – locomotor skills and object control skills, we can say, that there was no statistically significant difference in locomotor skills in term of gender ($p=0,50$), mean values for boys and girls are shown below in Table 2. Also in the second subtest was not found significant difference between boys and girls in object control skills ($p=0,31$) according to rough scores. Based on the overall result where is significant difference between boys and girls, it is clear, that there is very important fact, that in object control skills girls have different standard scores than boys, which for sure made the significant difference, although rough scores were almost similar. We confirmed this fact also with statistical processing of standard scores and we get significant difference $p=0,00$, where mean value for boys was 13,82 standard score and girls achieved 15,76 standard score.

Table 2. Average levels of gross motor skills in detail (n=100)

	GMQ [points]	STDd.	OCS[score]	STDd.	LOK[score]	STDd.
All	131,78	6,80	43,82	2,91	45,33	1,65
Boys	129,70	6,01	44,12	2,78	45,44	1,65
Girls	133,82	6,90	43,53	3,01	45,22	1,64

Legende: GMQ – Gross Motor Quotient; STDd. – Standard Deviation; OCS – Object Control Score; LOK – Locomotor score

From the point of view of cognitive skills, more than half of pre-school children from our research group are according to used methodic (MaTeRS) is ready for school with no exceptions (Table 3). Only 13 % of children are border ready and 35% are also ready for compulsory school attendance but with some exceptions. So it can be said, that results from cognitive assessment are rather positive. Using statistical processing there was not found significant difference between boys and girl in terms of cognitive skills according to rough scores $p=0,10$. Boys achieved higher mean rough score 38,92, while girls only 37,02.

Table 3. Hodnocení kognitivních schopností dle připravenosti na školu (n=100)

	Boys	Girls
0 - 2 not prepared	0	0
3 - border ready	2	11
4 - ready with exceptions	20	15
5 - ready for school	28	24

Between gross motor skills and cognitive competences was found negative correlation $r=-0,25$ ($p\leq 0,05$). In the cognitive competence subtest called general knowledge was not found significant difference between gender ($p=0,12$), but boys had better knowledge (mean for boys is 24,14; girls=22,49). Second subtest from the area of mathematics revealed no significant difference between genders ($p=0,06$) and boys also performed better (mean for boys=8,84; girls=8,12). Statistical processing revealed significant differences between genders ($p=0,00$) in subtest aimed on geometrical shapes, where boys performed better (boys=4,62; girls=3,98). No significant difference between genders was found in graphomotorics subtest ($p=0,24$), but in this case girls achieved better results (boys=11,74; girls=12,35). Another subtest connected to drawing of a figure also did not found significant difference between genders ($p=0,82$), girls also performed better but only little (boys=4,22; girls=4,25). Another subtest aimed on hearing perception revealed significant difference between genders



($p=0,00$). Here performed boys better (mean for boys=26,50; girls= 23,67). Visual perception did not showed significant differences in terms of gender ($p=0,79$). The last subtest from cognitive part of the test aimed on spatial perception also did not showed significant difference ($p=0,11$), but boys again performed better (mean for boys=8,64; girls=7,86).

Results, Conclusions and Recommendations

The main question that was solved within the research was if there is a relationship between gross motor skills and cognitive competences in pre-school children. Statistical processing revealed weak negative correlation $r=-0,25$, that means if cognitive competence are higher, levels of gross motor skills tends to be lower. But when we look closer on the results, interesting things can be seen. Although we found negative correlation between the level of gross motor skills and cognitive competences, we found that girls have significantly higher level of gross motor skills ($p=0,002$) and also performed significantly better in object control skills ($p=0,00$) than boys. And interesting thing is that although girls did not have significantly better results, they performed better in graphomotorics and drawing a figure than boys, which is connected to fine motor skills and object control skills. So these results suggest possible relationship between those categories. This corresponds to studies that say that fine motor skills, especially those that require integration of visual and motor systems, are emerging as an important factor for children's development of executive function, self-regulation, and later success in school (Becker, Miao, Duncan, & McClelland, 2014; Carlson, Rowe, & Curby, 2013). This problem should be further researched probably on higher number of probands and possibly using different research tools to confirm relationship also with cognitive competences. Another limitation could be the intentional selection of gifted and skillful children – based on their level of gross motor skills. The second research question was confirmed and also commented above. Third research question was also answered. There was not found significant difference between boys and girls in cognitive competences. But each subtests were also examined and assessed and revealed some significant differences. Boys are significantly better in area of geometrical shapes, which focuses on the knowledge of the form and naming of the geometric shape, where the children should be able to perceive relational terms like above, under, next to, between etc. The child also should be able to name and distinguish directions like right, left, up and down. Another significant difference in terms of gender in favor for boys was found in hearing perception ($p=0,00$). Hearing perception is an important tool for communication and highly influence development of speech and thinking. Hearing perception is also a foundation for reading and writing and is considered to be linked to current level of speech abilities of the child. In other parts of the MaTeRS test were not found statistically significant differences. But further research should be also done and could search for possible relationship between mentioned subtests. Also MacDonald Lipscomb, McClelland et al. (2016) confirmed that children's visual-motor integration and object manipulation skills in the fall have modest to moderate relations with executive function and social behaviors later in the preschool year. These findings have implications for early learning initiatives and school readiness.

References

- Becker, D. R., Miao, A., Duncan, R. J., & McClelland, M. M. (2014). Behavioral self-regulation and executive function both predict visuomotor skills and early academic achievement. *Early Childhood Research Quarterly*, 29, 411–424. doi:10.1016/j.ecresq.2014.04.014.
- Carlson, A. G., Rowe, E., & Curby, T. W. (2013). Disentangling fine motor skills' relations to academic achievement: The relative contributions of visual-spatial integration and visuomotor coordination. *Journal of Genetic Psychology*, 174, 514–533. doi:10.1080/00221325.2012.717122.
- DuBose, K. D., McMillan, A. G., Wood, A. P., Sisson, S. B. (2018). Joint Relationship Between Physical Activity, Weight Status, and Motor Skills in Children Aged 3 to 10 Years. *Perceptual and Motor Skills*, 125(3), 478–492. DOI: 10.1177/0031512518767008.



- Famelia, R., Tsuda, E., Bakhtiar, S., Goodway, J. D. (2018). Relationships Among Perceived and Actual Motor Skill Competence and Physical Activity in Indonesian Preschoolers. *Journal of Motor Learning and Development*, 6, 403–423.
- Haga, M. (2008). The relationship between physical fitness and motor competence in children. *Child: Care Health and Development*, 34, 329–334.
- Lestari, I., Ratnaningsih, T. (2016). The Effects of Modified Games on the Development of Gross Motor Skill in Preschoolers. *International Journal of Evaluation and Research in Education (IJERE)*, 5(3), 216–220, ISSN: 2252-8822.
- Lopes, L., Santos, R., Pereira, B., Lopes, V. P. (2013). Associations between gross Motor Coordination and Academic Achievement in elementary school children. *Human Movement Science*, 32, 9–20.
- Lubans, D. R., Morgan, P. J., Cliff, D. P., Barnett, L. M., Okely, A. D. (2010). Fundamental movement skills in children and adolescents: Review of associated health benefits. *Sports Medicine*, 40, 1019–1035.
- MacDonald, M., Lipscomb, S., McClelland, M. M., Duncan, R., Becker, D., Anderson, K., Kile, M. (2016). Relations of Preschoolers' Visual-Motor and Object Manipulation Skills With Executive Function and Social Behavior. *Research quarterly for exercise and sport*, 87(4), 396–407. <http://dx.doi.org/10.1080/02701367.2016.1229862>.
- MacDonald, M., Lipscomb, S., McClelland, M. M., Duncan, R., Becker, D., Anderson, K., Kile, M. (2016). Relations of Preschoolers' Visual-Motor and Object Manipulation Skills With Executive Function and Social Behavior. *Research Quarterly For Exercise And Sport*, 87(4), 396–407, <http://dx.doi.org/10.1080/02701367.2016.1229862>.
- Mancini, V. O., Rigoli, D., Roberts, L. D., Heritage, B., Piek, J. P. (2018). The relationship between motor skills and psychosocial factors in young children: A test of the elaborated environmental stress hypothesis. *British Journal of Educational Psychology*, 88, 363–379.
- Michel, E., Roethlisberger, M., Neuenschwander, R., & Roebbers, C. M. (2011). Development of cognitive skills in children with motor coordination impairments at 12-month follow-up. *Child Neuropsychology*, 17(2), 151–172.
- Obrusnikova, I., Cavalier, A. (2018). An Evaluation of Videomodeling on Fundamental Motor Skill Performance of Preschool Children. *Early Childhood Educ J*, 46, 287–299. DOI 10.1007/s10643-017-0861-y.
- Piek, J. P., Dyck, M. J., Francis, M., & Conwell, A. (2007). Working memory, processing speed, and set-shifting in children with developmental coordination disorder and attention-deficit-hyperactivity disorder. *Developmental Medicine and Child Neurology*, 49(9), 678–683.
- Roebbers, C. M., & Kauer, M. (2009). Motor and cognitive control in a normative sample of 7-year-olds. *Developmental Science*, 12, 175–181.
- Stöckel, T., Hughes, C. M. L. (2016). The relation between measures of cognitive and motor functioning in 5- to 6-year-old children. *Psychological Research*, 80, 543–554. DOI 10.1007/s00426-015-0662-0.
- Suggate, S., Pufke, E., Stoeger, H. (2016). Do fine motor skills contribute to early reading development? *Journal of Research in Reading*, 1–19. ISSN 0141-0423. DOI:10.1111/1467-9817.12081.
- Ulrich, D. (2000). A Test of gross motor development: examiner's manual. 2. vyd. Austin: Pro-Ed publisher, 1–60.
- van der Fels, I. M. J., Wierikea, S. C. M., Hartmana, E., Elferink-Gemser, M. T., Smitha, J., Visscher, Ch. (2015). The relationship between motor skills and cognitive skills in 4–16 year old typically developing children: A systematic review. *Journal of Science and Medicine in Sport*, 18, 697–703. <http://dx.doi.org/10.1016/j.jsams.2014.09.007>.
- Vlčková, H., Poláková, S. (2013). Test mapující připravenost na školu (MaTeRs). Praha: Národní ústav vzdělávání.
- Wassenberg, R., Feron, F., Kessels, A., Hendriksen, J., Kalff, A., Kroes, M., et al. (2005). Relation between cognitive and motor performance in 5- to 6-year-old children: results from a large scale cross-sectional study. *Child Development*, 76(5), 1092–1103.

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Relationship between Motor Skills and Academic Performance in Preschool Children

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Abstract

Current educational strategies prefer a close link between movement and academic skills. Education in the youngest age categories of human life enhances the effects of the educational process in older age categories. Retention increases and stability of acquired skills becomes permanent. Current research deals with the relationship between motor skills, physical activity or fitness and the academic skills of children. The aim of this research is to determine the relationship between Motor Skills and Academic Performance in pre-school children. In this period, in some cases, it is still possible to eliminate some problems in the area of motor skills by appropriately selected educational methods and procedures. The level of motor skills was determined by TGMD-2 test. To determine the level of academic skills, a subtest for the evaluation of graphomotorics and visual-motor abilities called MaTeRs was used, which is used to assess the school readiness of a pre-school child in the area of fine motor skills. In the research participated 100 children aged 5.26 ± 0.45 years. The relationship between graphomotorics and child's motor skills was correlated. Data was obtained within the project IGA_PdF_2019_015. Exploring the importance of preschool child motor skills for its future success in the educational process is still in its beginnings. Therefore, it is necessary to consider this issue in a given age category to a much greater extent and to examine it from various points of view.

Keywords: preschool age, graphomotor skills, vizuo-motor skills, cognitive premise, motorics

Introduction

Education in the youngest age categories of human life enhances the effects of the educational process in older age categories. Retention increases and stability of acquired skills becomes permanent. Physical activity is associated with the support of the child's health and is an integral part of his physiological motor development. It influences the quality of emotional, social and cognitive development (Bart, Hajami, Bar-Haim, 2007; Mavilidi, Okely, Chandler, Paas, 2017; Carson, Hunter, Kuzik et al., 2016). The family, as the basic social group in, which the child is born and initially lives, considers the foundations of the relationship to physical activities, both positive and negative. The family's lifestyle is a model for the child, which he/her often imitates during his/her adulthood. The share of the state in the education and training of a healthy generation consists in creating suitable conditions for the realization of physical activities and in targeted interventions in the movement regime of children during their stay in school. Current educational strategies prefer a close link between movement and academic skills. Latest researches deal with the relationship between motor skills, physical activity or fitness and the academic skills of children. Some researches already mention the influence of physical activity on memory and concentration, which are directly related to school success and academic achievement (Tremblay, Inman & Willms, 2000; Trudeau & Shepard, 2008; van der Niet, Hartman, Smith & Visscher, 2014). According to Donnelly et al. (2016) and Paas & Sweller (2012) physical activity has a positive impact on the development of thinking and brain function and this topic should be further examined. Oberer, Gashaj, & Roebbers (2017) confirmed in their research the relationship between gross and fine child motor skills and the level of their executive functions. The low level of gross motor skills correlates with low adaptability and social competences and thus contributes negatively to the child's level of school success (Oliver, Schofield, Colt, 2007; Smith et al., 2013). Acquired motor skills enable the child to gain information and influence the environment, get to know and make contact with other children (von Hofsten, 2004; Leonard, 2016; Wang, 2018). In preschool age, a child examines and evaluates the environment through their physical activity, and on the other hand, the opportunity to explore and evaluate activities, objects and persons around the child develops his / her thinking, observation and reasoning. Deficits in fine motor skills are an indicator of learning disabilities (Grissmer, Grimm, Aiyer, Murrah



& Steele, 2010; Yang, Cheong & Hong, 2006; Venetsanou, Kambas, Aggeloussis, Serbezis & Taxildaris, 2007; Gwynne K, Blick, 2004). As part of compulsory education, the child performs tasks that include both cognitive and motoric components, so it is logical to conclude that there is a close link between these components and school success. The low level of motor skills also correlates with low social adaptability and social competences and thus contributes negatively to a child's compulsory school failure (Oliver, Schofield, Kolt, 2007; Smith et al., 2013; Fedewa, Ahn, 2011; Diamond, 2015; Schmidt, Benzing, Kamer, 2016). Support of physical activities and aimed development of the child's motor skills in pre-school education could thus positively influence its future academic skills, physical fitness and prosocial behavior. The aim of the research is to find out the relationship between motor skills and selected academic performance in preschool children. The following areas were assessed in the research:

1. the relationship between gross motor skills and graphomotor skills in pre-school children,
2. the relationship between gross motor skills and visual motor skills in preschool children,
3. the existence of gender differences in the level of motor skills, graphomotorics and visual motor skills.

Method

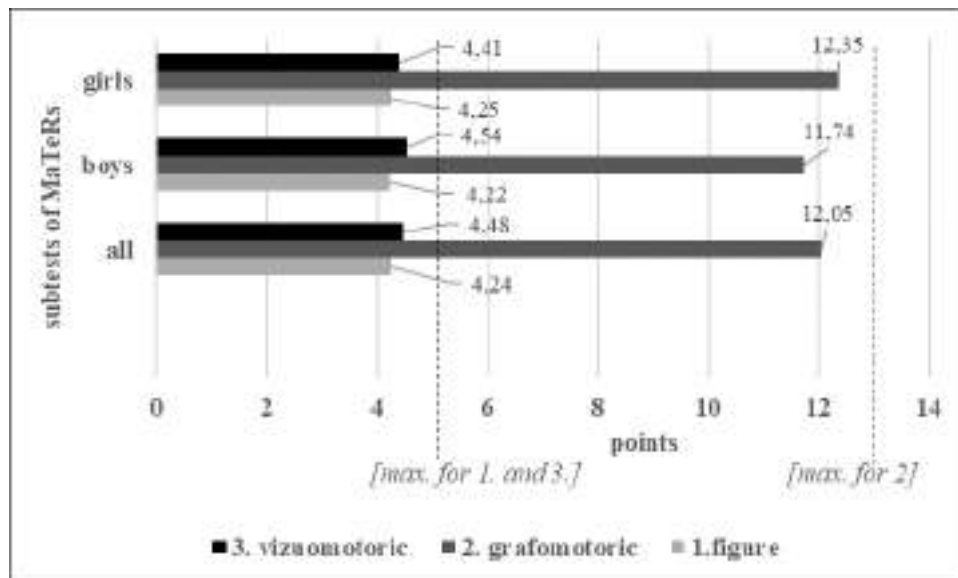
from kindergartens as part of compulsory pre-school attendance. Compulsory pre-school education in the Czech Republic applies to children who reach the age of six in the following school year and are this type of education leads to compulsory primary school education. Primary school education starts the child after reaching the age of six. For the participation in the research group was chosen intentional selection, where the criterion for inclusion was the level of pre-school child in the category above-average to superior. The research was approved by the Ethics Committee of the Pedagogical Faculty of Palacký University in Olomouc and implemented as part of the IGA_PdF_2019_015 project. The child was placed in the research after signing written agreement of his / her parents / legal representatives and after the approval of the management of kindergartens. The participation in the project was voluntary and free of charge. The anonymity of the data was declared and guaranteed to all participants. Testing was done within inner spaces of kindergartens, in accordance with manuals for work with selected methods and techniques of research work. Children may have asked questions during the testing, could at any time temporarily interrupt or leave the research based on their decision or decision made by their parents/ legal representatives. Children's responses were observed and, in case of a negative reaction, testing was interrupted or ended. The level of motor skills was determined by the TGMD-2 test (Ulrich, 2000), which monitors the level of locomotor and object control skills. The result is a standard score that is converted from rough score based on the child's age and gender. The standard score is converted to Gross Motor Development Quotient, which is an indicator of the final level of gross motor skills. Subtests for the evaluation of graphomotoric and visual-motor skills of MaTeRs (Vlčková & Poláková, 2013) was used to determine the level of academic abilities that are an indicator of the child's school readiness before starting compulsory school attendance. MaTeRS serves for the evaluation of so-called school readiness of a pre-school child in the area of fine motor skills. Part of the test can be administered in groups (max. 8 children), the second part, which follows immediately, requires individual examination. The result in each subtest is a rough score, which is calculated based on the child's age as a weighted score. The sum of the weighted scores is converted into an overall cognitive assessment (categories 0-5), where 0-2 means not ready for compulsory schooling, category 3 represents the minimum school readiness, category 4 stands for school readiness with slight exceptions and 5 means the child's readiness to attend school without exceptions. However, for a clinical examination by a school psychologist, the level of percentiles and weighted scores is being used and the same is being done in this research. The relationship between the weighted scores of graphomotoric and visual-motor skills and the child's gross motor skills was correlated. Gender differences in gross motor and cognitive competences were evaluated by t-test.

Findings



Researched children achieved from above-average to superior levels of motor skills. The average score in the motor skills test was 131.78 ± 6.80 (boys 129.70 ± 6.01 ; girls 133.82 ± 6.90). In locomotor skills (45.33 ± 1.65) both boys (45.44 ± 1.65) and girls (45.22 ± 1.64) were in the 95-98 percentile of the population. Object control skills (43.82 ± 2.91) showed lower levels than in locomotor skills, but no statistically significant differences were found between girls (43.53 ± 3.01) and boys (44.12 ± 2.78). From the point of view of object control skills, the research group ranks among the 74–84 percentile population. The group of boys in object control skills ranged from 84–91 per centile, while girls from the 95–98 per cent of the population. In terms of overall score in the motor skills test, a statistically significant difference ($p \leq 0.01$) was found in favor of girls. Hardy, Farrell, Macniven and Howlett, (2010) in their research on preschool children report significant gender differences in some sub-components of motor skills, but do not confirm them in the overall score of the research group. Dadkhah (2004) did not find significant differences between girls and boys in pre-school age in most of the coordination skills studied. Problems were observed in children in subtest jumps on one leg, which can be difficult for preschool children in terms of coordination and the dynamic strength of the lower limbs. In this subtest, girls achieved worse results than boys. The most difficult from the object control skills category was the subtest dribbling, for both boys and girls, which again belongs to the coordination difficult disciplines. Another very challenging skill for kids was hitting the static ball. But this skill is not generally preferred in the population because games based on it (baseball, softball, etc.) are not traditional in the Czech Republic. Some authors point out that tactile experiences through manipulation of various objects can positively affect cognitive processes (Boncoddio, Dixon, Kelley, 2010; Lindgren, Johnson-Glenberg, 2013). The test used has similar characteristics to, for example, The Rey-Osterrieth complex figure (Watanabe et al., 2005) or the Stanford-Binet Intelligence Scale (2003, 5th edition) (Roid, 2005). The first subtest on which graphomotoric skills of a pre-school child are evaluated in the Czech Republic is Figure Drawing Test. According to Vágnerová (2018), the drawing of a human figure reflects the child's psychological development and the ability to display it. An important role is played by the level of fine motor skills and hand-coordination, which are the signals of the so-called school maturity of the child. Changes in the representation of the visible object are always reflected in a certain period and are one of the signals of the achieved development level. The object / human figure is an indicator of visual perception, imagination, memory, fine motor skills and sensomotrics, but also the level of achieved intellectual abilities. Of the total maximum score (5 points), the research group scores 4.24 ± 0.75 (boys 4.22 ± 0.76 , girls 4.25 ± 0.74), which corresponds to the 84 percentile achieved by the general population. In this subtest, no differences were found in terms of gender ($p \leq 0.81$). In another subtest, called "graphomotorics," in the form of a game, children illustrate the curves (wavy lines, arcs, vertical short lines) of the presented figures. The grip and level of pencil control are evaluated. From the maximum score (15 points), the children achieved 12.05 ± 2.61 points from the research sample, which is considered the 87 percentile of the general population. Girls achieved a better score (12.35 ± 2.71 points) than boys (11.74 ± 2.46 points), but this result was expected due to the traditional difference in preference for activities in the area of fine motor skills in girls by parents. In this subtest, no differences were found in terms of gender ($p \leq 0.24$). In the visual-motor aspect, the ability to distinguish the deployment of objects and to reproduce this deployment as accurately as possible is evaluated within school readiness. From a maximum score of 5 points, the children in the research group achieved 4.48 ± 0.74 points, a score of 36 percentiles of the general population. This result can be described as below average. There were no statistically significant differences between boys (4.54 ± 0.73) and girls (4.41 ± 0.75) ($p \leq 0.39$) (Fig. 1).

Figure 1. Score of persons in MaTeRs test ($n = 101$; $n_{boys} = 50$, $n_{girl} = 51$)



Similar to Brossard-Racine et al. (2011), Parush et al. (2010), Daly, Kelley, and Krauss (2003) or Volman et al. (2006) we confirm the correlation between the results in figure drawing test and pencil grip ($r = 0.63$) ($p \leq 0.05$) as well as between the level of the visual motor and the pencil grip ($r = 0.59$) ($p \leq 0.05$). There was no correlation between the overall level of motor skills and individual subtests to monitor compulsory school attendance for the given research group. The correlation coefficient values do not show a low dependence either. A negative correlation value was found for the visual-motor evaluation subtest. However, with the development of neurological sciences, the issue is increasingly being investigated. A number of researches confirm the relationship between motor skills and cognitive functions, which are an important prerequisite for a child's compulsory school success (Coe, Pivarnik, Womack, Reeves, Malina, 2006; America SoHaPE, 2014; Telford, Cunningham, Fitzgerald, 2012). On the contrary, Keeley and Fox (2009) do not find enough evidence to link the level of physical activity, motor skills, and academic prerequisites. But they note that a weak positive link has been found between physical activity and fitness, as well as between academic achievement and fitness and elements of cognitive function. They see weaknesses in a very low number of intervention studies.

Results, Conclusions and Recommendations

Exploring the importance of preschool child motor skills as a predictor of success in primary school education is still at the beginning. Partial researches done in recent years point to possible relationships between motor development, cognitive abilities and social skills in both intact and disabled children. Teachers/ educators should be aware and informed of this and focus on monitoring children's motor skills. Early detection of problems in these areas and subsequent aimed interventions can be positive for the youngest age groups. In pre-school education in kindergartens, some problems in the area of motor skills could be eliminated by appropriately selected educational methods and procedures within the application of intervention programs. That is why it is necessary to focus more attention to this issue in a given age category and examine it from various perspectives.

References

- America SoHaPE (2014). National standards & grade-level outcomes for K-12 physical education. Champaign, IL: Human Kinetics.
- Bart, O., Hajami, D., Bar-Haim, Y. (2007). Predicting school adjustment from motor abilities in kindergarten. *Infant & Child Development*, 16, 597-615.



- Boncoddo, R., Dixon, J. A., Kelley, E. (2010). The emergence of a novel representation from action: evidence from preschoolers. *Developmental Science*, 13(2), 370-377.
- Brossard-Racine, M., Majnemer, A., Shevell, M., Snider, L., Bélanger, S. A. (2011). Handwriting capacity in children newly diagnosed with Attention Deficit Hyperactivity Disorder. *Research in Developmental Disabilities*, 32 (2011), 2927-2934.
- Carson, V., Hunter, S., Kuzik, N., Wiebe S. A. , Spence, J. C. , Friedman, A., Tremblay, M. S., Slater, L., Hinkley, T. (2016). Systematic review of physical activity and cognitive development in early childhood. *Journal of Science and Medicine in Sport*, 19(7), 573-578.
- Coe, D.P., Pivarnik, J. M., Womack, C. J., Reeves, M.J., Malina, R.M. (2006). Effect of physical education and activity levels on academic achievement in children. *Medicine and Science in Sports and Exercise*. 38(8),1515-1519.
- Dadkhah, M. F. A. (2004). The impact of educational play on fine motor skills of children. *Middle East Journal of Family Medicine*, 6 (6).
- Daly, C. J., Kelley, G. T., Krauss, A. (2003). Relationship between visual- motor integration and handwriting skills of children in kindergarten: A modified replication study. *American Journal of Occupational Therapy*, 57, 459- 462.
- Donnelly, J. E., Hillman, Ch. H., Castelli, D., Etnier, J. L., Lee, S., Tomporowski, P., Lambourne, K., Szabo-Reed, A. N. (2016). Physical Activity, Fitness, Cognitive Function, and Academic Achievement in Children: A Systematic Review. *Med Sci Sports Exerc*. 48(6), 1197-1222.
- Fedewa, A. L., Ahn, S. (2011). The effects of physical activity and physical fitness on children's achievement and cognitive outcomes: a meta-analysis. *Research Quarterly for Exercise and Sport*, 82(3), 521-535.
- Grissmer, D., Grimm, K., Aiyer S., Murrah, W., Steele, J. Fine motor skills and Early understanding of the world: two new school readiness indicators. *Developmental Psychology*, Vol 46(5), 1008-1017.
- Gwynne, K., Blick, B. (2004). Motor performance checklist for 5-year-olds: a tool for identifying children at risk of developmental co-ordination disorder. *Journal of Paediatrics Child Health*, 40, 369-373.
- Hardy, L. L., L., Farrell, L., Macniven, R., Howlett, S. (2010). Fundamental movement skills among Australian preschool children. *Journal of Science and Medicine in Sport*, 13(5), 503-508.
- Keeley, T. J. H., Fox, K. R. (2009). The impact of physical activity and fitness on academic achievement and cognitive performance in children. *International Review of Sport and Exercise Psychology*. 2009, 2(2), 198-214.
- Leonard, H. C. (2016) The Impact of Poor Motor Skills on Perceptual, Social and Cognitive Development: The Case of Developmental Coordination Disorder. *Frontiers in Psychology*, 7(311), 1-4.
- Lindgren, R., Johnson-Glenberg, M. (2013). Emboldened by embodiment six precepts for research on embodied learning and mixed reality. *Educational Researcher*, 42(8), 445-452.
- Mavilidi, M., Okely, A. D., Chandler, P., Paas, F. (2017). Effects of Integrating Physical Activities Into a Science Lesson on Preschool Children's Learning and Enjoyment. *Applied Cognitive Psychology*, 31(3), 281-290.
- Oberer, N., Gashaj, V., Roebbers, C. M. (2017). Motor skills in kindergarten: Internal structure, cognitive correlates and relationships to background variables. *Human Movement Science*, 52, 170-180
- Oliver, M., Schofield, G. M., Kolt, G. S. (2007). Physical activity in preschoolers: Understanding prevalence and measurement issues. *Sports Medicine*, 37(12), 1045-1070.
- Paas, F., Sweller, J. (2012). An evolutionary upgrade of cognitive load theory: Using the human motor system and collaboration to support the learning of complex cognitive tasks. *Educational Psychology Review*, 24(1), 27-45.
- Parush, S., Lifshitz, N., Yochman, A., Weintraub, N. (2010). Relationships between Handwriting Components and Underlying Perceptual-Motor Functions among Students during Copying and Dictation Tasks. *OTJR: Occupation, Participation and Health*, 30(1), 39-48.



- Roid, G. H. (2005). Stanford Binet Intelligence Scales, Fifth Edition, Interpretive Manual, Itasca, IL: Riverside Publishing.
- Schmidt, M., Benzing, V., Kamer, M. (2016). Classroom-based physical activity breaks and children's attention: Cognitive engagement works! *Frontiers in Psychology*, 7, 1-13.
- Smith, A. L., Hoza, B., Linnea, K., McQuade, J.D., Tom, M., Vaughn, A.J. et al. (2013). Pilot physical activity intervention reduces severity of ADHD symptoms in young children. *Journal of Attention Disorders*, 17, 70-82.
- Telford, R. D., Cunningham, R. B., Fitzgerald, R., Olive, L. S., Prosser, L., Jiang, X., Telford, R. M. (2012). Physical education, obesity, and academic achievement: a 2-year longitudinal investigation of Australian elementary school children. *American Journal of Public Health*. 102(2), 368-74.
- Tremblay, M. S., Inman, J.W., Willms, J. D. (2000). The relationship between physical activity, self-esteem, and academic achievement in 12-year-old children. *Pediatric Exercise Science*, 12(3), 312-323.
- Trudeau, F., Shephard, R. J. (2008). Physical education, school physical activity, school sports and academic performance. *International Journal of Behavioral Nutrition & Physical Activity*, 5, 1-12.
- van der Niet, A. G., Hartman, E., Smith, J., Visscher, C. (2014). Modeling relationships between physical fitness, executive functioning, and academic achievement in primary school children. *Psychology of Sport and Exercise*, 15(4):319–25.
- Venetsanou, F., Kambas, A., Aggeloussis, N., Serbezis, V., Taxildaris, K. (2007). Use of the Bruininks-Oseretsky Test of Motor Proficiency for identifying children with motor impairment. *The Developmental Medicine & Child Neurology*., 49, 846-848.
- Vlčková, H., Poláková, S. (2013). Test mapující připravenost na školu (MaTeRs). Praha: Národní ústav vzdělávání.
- Volman M. J., van Schendel B. M., Jongmans M. J. (2006). Handwriting difficulties in primary school children: A search for underlying mechanisms. *American Journal of Occupational Therapy*, 60, 451-460.
- von Hofsten, C. (2004). An action perspective on motor development. *Trends in Cognitive Sciences*, 8(6), 266-272.
- Wang, M. V., Lekhal, R., Aarø, L. E., Schjolberg, S. (2012). Co- occurring development of early childhood communication and motor skills: results from a population- based longitudinal study. *Child: Care, Health and Development*, 40, 77-84.
- Watanabe, K., Ogino, T., Nakano, K., Hattori, J., Kado, Y., Sanada, S., Ohtsuka, Y. (2005). The Rey–Osterrieth complex figure as a measure of executive function in childhood. *Brain & Development*, 27, 564-569.
- Yang, S. J., Cheong, S., Hong, S. D. (2006). Prevalence and correlates of attention deficit hyperactivity disorder: school-based mental health services in Seoul. *Journal of Korean Neuropsychiatric Association*, 45, 69-76.



Lifelong Learning Versus Agnotology in The Cyber World

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Abstract

Some concepts such as lifelong learning along with the beginning of the twenty-first century began to become more popular all over the world. Undoubtedly, the development of technology at a dizzying pace and the fact that access to information is made easier than ever, has an important role in making lifelong learning so popular. While accessing a lot of information required a time-consuming process, it has become possible to reach information within seconds by means of the facilities offered by the Internet. In today's societies, thanks to the opportunities offered by the internet, people of all ages and social status are more likely to have more and more information than the past, but the possibility of having false or incomplete information due to the information provided by the Internet has increased as well. In 2008, the term – agnotology - was coined to describe the study of ignorance and its cultural production. Agnotology tries to answer how and why we do not have knowledge about things. On the other hand, lifelong learning includes the answers to the question of how to reach the right information through lifelong ways. This study aims to help lifelong learners how to diagnose and cope with agnotological productions in cyber environments. For this purpose, various scientific studies on this subject have been examined. The results and recommendations of the study obtained in the light of the data examined are not included as the data analysis process continues.

Keywords: lifelong learning, agnotology, cyber world.



Mobility of Elderly People in Super-aging Society: A Survey in Japan

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Abstract

In order to understand mobility of elderly people in Japanese super-aging society, a survey was conducted by targeting three super-aging districts in Toyota City where the aging rates are higher than 30%. Totally, 889 samples were obtained from all 2,292 households with elderly people. As the people mainly drive cars as their travel tools, analysis is also focused on the driving in the future. In terms of comparison among districts, some differences are understood. Most differences reasoned in different locations of hospitals and shopping facilities. Except effects of the facilities locating, all elderly people behave and think very similarly. These kinds of results can make people have a common understanding for the mobility of elderly people in a super-aging society and further call the attentions to make a future plan so as to approaching to a sustainable mobility society.

Keywords: elderly people, sustainable mobility, super-aging society, Toyota City

Introduction

Japan is known as a super-aging society in the world. In Japan, Toyota City is considered as the epitome of Japan because similarities of land-use and population et al. between Toyota City and the whole country. In order to understand mobility of elderly people in this super-aging society, a survey was conducted by targeting three super-aging districts in Toyota City: Ishino, Obara and Asahi, where the aging rates expressed by percentages of elderly people are 30%, 33% and 41% respectively. By the way, elderly is defined as being 65 years old and over. Totally, 889 samples were obtained from all 2,292 households with the elderly people. Contents of the survey include daily life activities, travel modes and so on. As the people mainly drive cars as their travel tools, analysis is also focused on the driving in the future. In terms of comparison among three districts, some differences are understood. Most differences are reasoning different locations of hospitals and shopping facilities. Except effects of the facilities locating, all elderly people of three districts behave and think very similarly. For example, they rarely make use public transport system and tend to driving cars five more years. These kinds of results can make people have a common understanding for the mobility of elderly people in a super-aging society and further call the attentions to make a future plan so as to approaching to a sustainable mobility society. In this paper, the detail results of the surveys and some additional discussions are summarized to let all understand what may happen and what should do from now.

Outline of the Survey

A. Target Area

Three districts are taken as target area for the survey: Asahi, Obara and Ishino in Toyota City. As given in Table I, the aging rates of all these three districts are equal or larger than 30%. Furthermore, these three districts have the following characteristics.

- 1) Asahi: with a high aging rate and most households have only married elderly members.
- 2) Obara: the aging is definitely recognized and many settlements are forecasted to be “marginal settlements”, which is defined as the settlement where the aging rate is higher than 75% and number of the households is less than 20.



3) Ishino: nearby city center area, people seem not worry about elderly mobility in the future.

Table 1. Population and Aging Rates in the Target Area

	Asahi	Obara	Ishino
Population (A)	3,035	4,018	4,498
Elderly people number (B)	1,245	1,346	1,345
Male persons	1,470	1,979	2,194
Male elderly persons	545	570	624
Female persons	1,565	2,039	2,304
Female elderly persons	700	776	721

B. Implementation

The survey is conducted in November 2014. Distributed questionnaire sheets are respectively 430, 442 and 400 in Asahi, Obara and Ishino districts. And collected answers are respectively 300, 297 and 292. Totally, 889 elderly people responded our survey. The gender is shown in Figure 1. About 60% are male and 40% are female. Comparing to the numbers in Table I, we can know that male elderly people have made more active response than female elderly people.

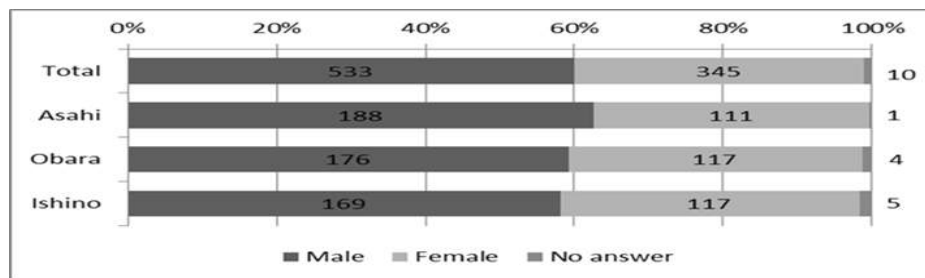


Figure 1. Gender of elderly people

The age distribution is given by Figure 2. Except that Ishino shows more 70-74 years old people, there are not clear differences among three districts.

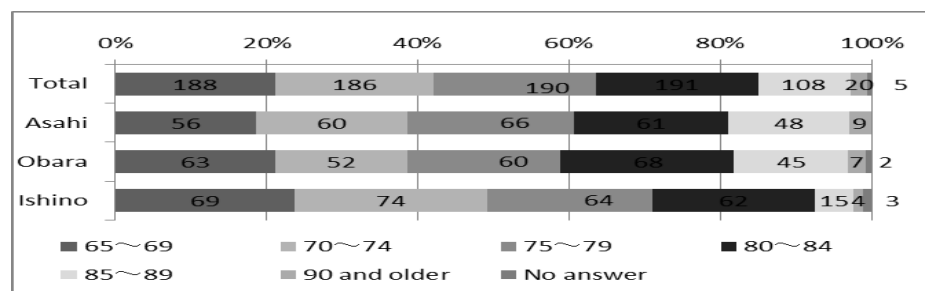


Figure 2. Age distribution

Results of the Survey

1. Present Mobility

Figure 3 tells us that more elderly people in Ishino are living with their child/children than the elderly people in Asahi and Obara. This may causes that a few more elderly people do not go shopping (Figure 4) because their child/children can go shopping for the family.

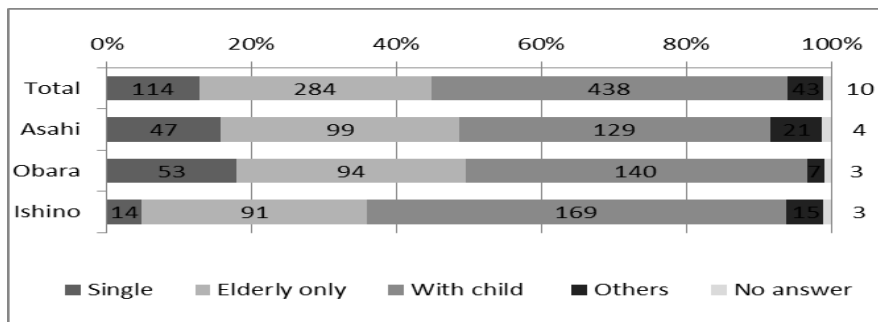


Figure 3. Family member

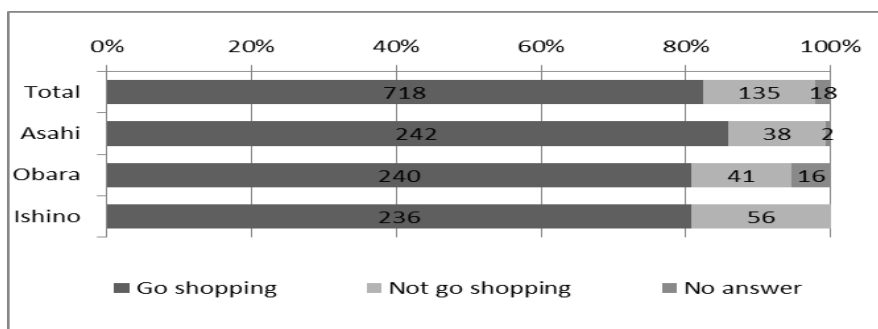


Figure 4. Mobility for shopping

Figure 5 shows that only a small percentage go shopping every day. Most of elderly people go shopping several days a week. And about 80% in all three districts drive cars when shopping. (Figure 6)

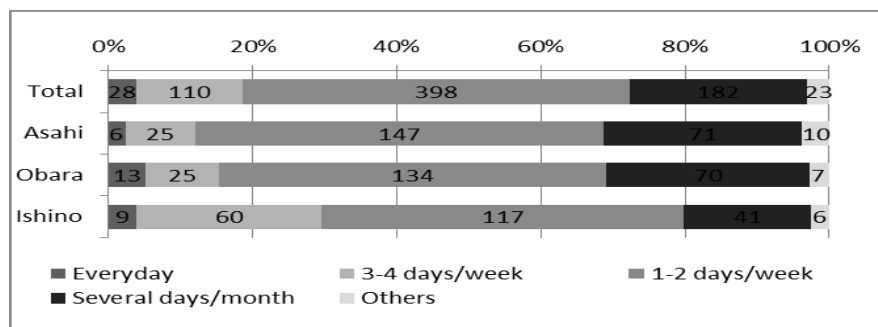


Figure 5. Frequency of shopping

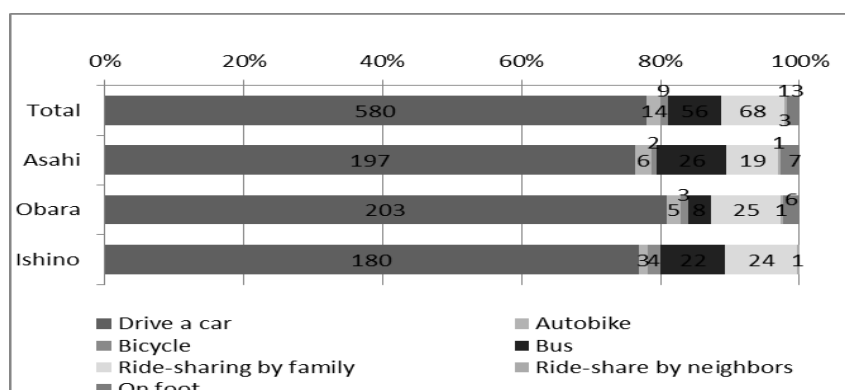




Figure 6. Travel modes when shopping

Although there are a few differences between Obara and the other two districts, about 70% are seeing a doctor regularly as seen in Figure 7. Comparing to the travel modes when shopping in Figure 6, the percentages driving cars are a few less but still high around 70% as shown in Figure 8.

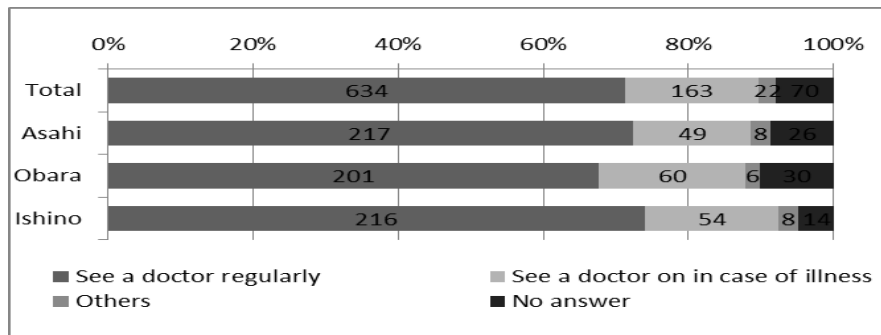


Figure 7. Mobility to see a doctor

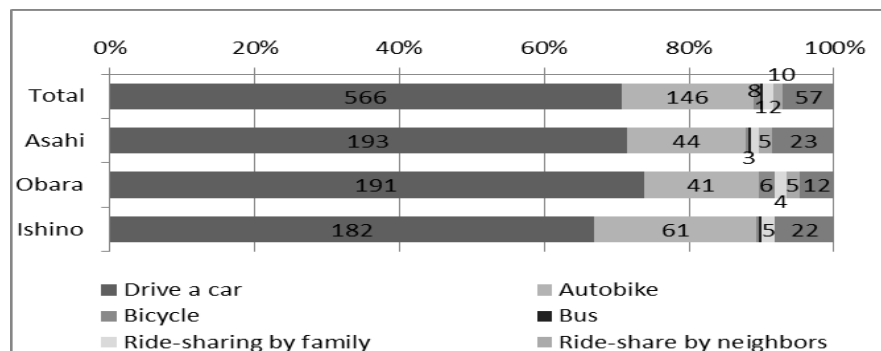


Figure 8. Travel modes when seeing a doctor

2. Driving Cars Themselves

Regarding the driver number in the three districts in Figure 9, there is no statistically significant difference.

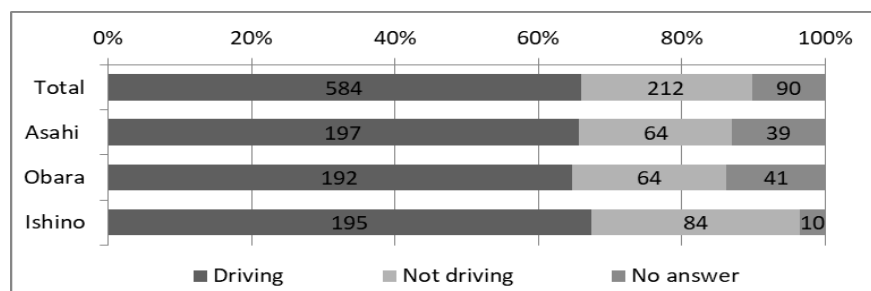


Figure 9. Number of drivers in the target districts (χ^2 Test: $p=0.263$)

When comparing the drive areas by age group shown in Figure 10, generally, older people limit nearby places only. However, the first obvious change occurs while being 70 years old and the second occurs while being 90 years old. Among the four age groups between 70 and 90 years old, there seems be no clear difference.



The answers to our question that “until how old do you think being able to drive a car?” are summarized in Table 2. Most elderly people thought they are able to drive between 80 and 85 years old. However, they thought they are able to drive about five more years when they became 80 years old or older.

Being proportional to what understood from Table 2, Figure 11 tells us less than 50% are going to give up driving cars although the percentages get higher as the age is getting older.

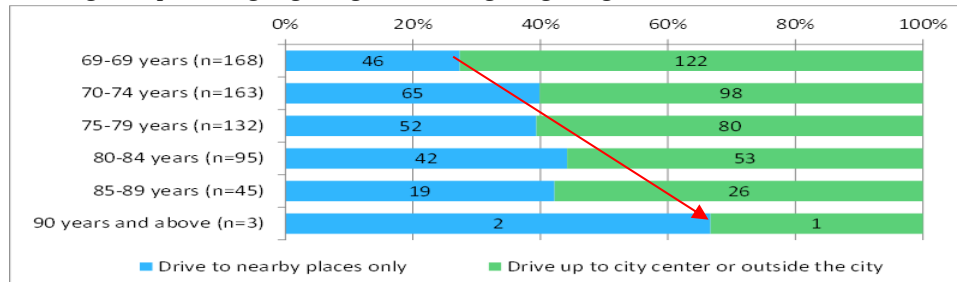


Figure 10. Driving area of each age group (χ^2 Test: $p=0.0459^*$)

Table 2. Ages thought being able to drive a car

Present age	Average age answered	Standard deviation
65~69 (n=163)	80 years old	4.89
70~74 (n=157)	81 years old	3.47
75~79 (n=127)	84 years old	5.06
80~84 (n=96)	86 years old	3.80
85~89 (n=44)	90 years old	3.25
90 and older (n=4)	94 years old	1.30

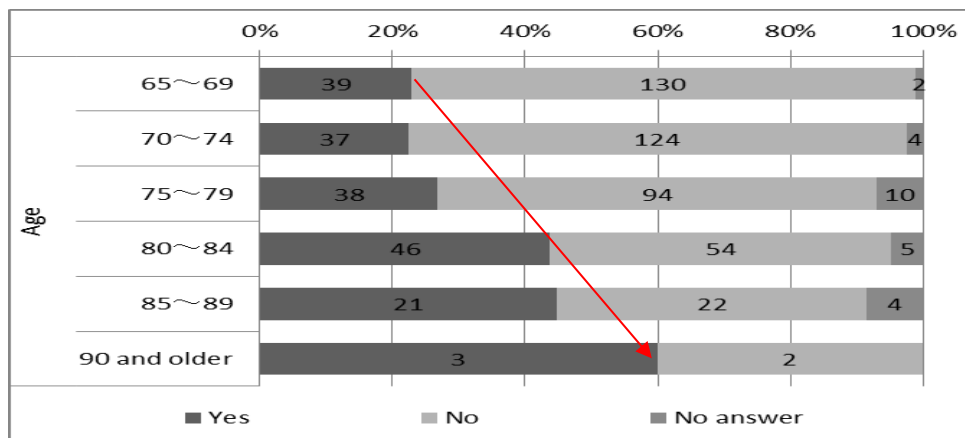


Figure 11. Having thought to give up driving?

3. Possibility to Make Use of Ride-Sharing

As we wanted to consider possibilities of ride-sharing as a counter measures, their experience were asked. The answers are shown in Figure 12. Near 50% experienced when shopping and this percentage became about half when seeing doctors. By the way, here the experienced ride-sharing is not commercial service but just support of family member or a mutual aid of neighbors.

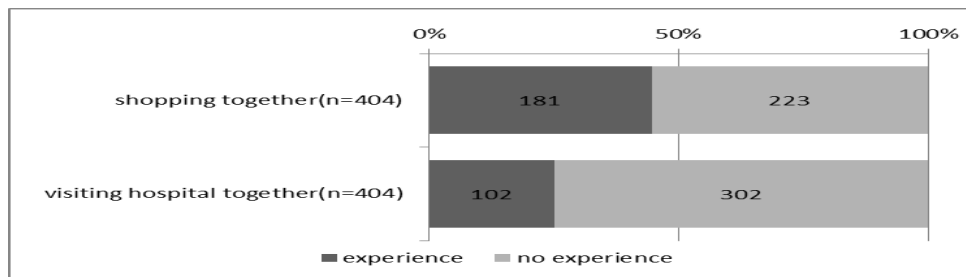


Figure 12. Ride-sharing experience for shopping and seeing doctors

Regarding expected transportation mode if giving up driving, the first choice is bus as summarized in Figure 13. However, the second answer is “don’t know”. This implies that society has not provided enough alternative travel modes for the elderly people.

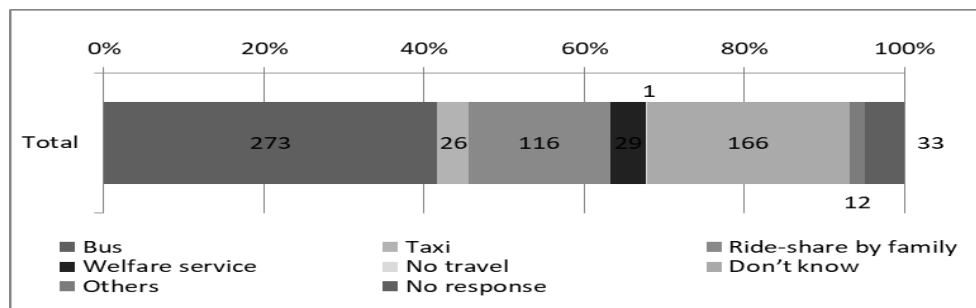


Figure 13. Expected transportation mode if giving up driving

On bus service, there are statistically significant differences among four evaluation items as shown in Figure 14. The experienced elderly people thought that the safety is the most important and operation time is comparatively less important. On the other hand, the non-experience elderly people thought that cost is less important as given by Figure 15. The same thing is that safety is the most important, too.

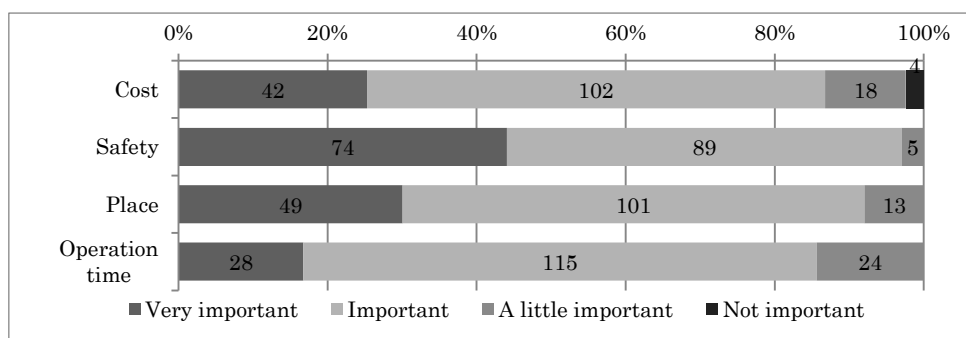


Figure 14. Evaluation on public transportation of the experienced people
(χ^2 Test: $p = 0.000^{**}$)

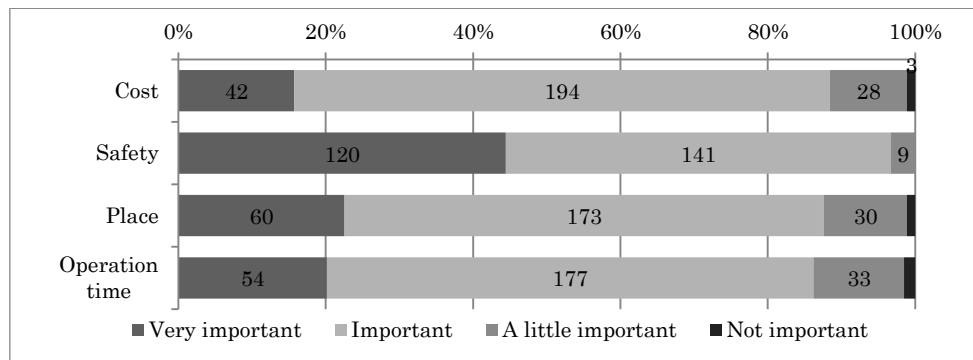


Figure 15. Evaluation on public transportation of the non-experienced people
(χ^2 Test: $p=0.000^{**}$)

However, when we asked the weights directly, the results changed as shown in Figure 16 although the safety is still the most one for both experience and non-experienced elderly people. The lowest weight given by the experienced elderly is clearly the cost and that by the non-experienced elderly is the place. In addition, the weights given by the non-experienced elderly are very nearly equal among four factors. It means the non-experienced elderly are hard to make clear judgment. This also tells us that it is necessary to experience bus service first is really important.

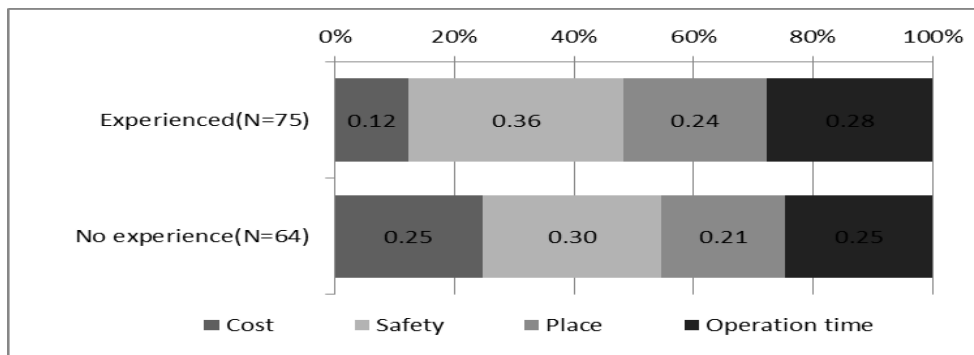


Figure 16. Weights of four evaluation points

Regarding hesitation for going out with neighbors, about 30% answered they did despite of responding to see a doctor, shopping or to allow neighbors riding on their private cars as given in Figure 17 although about 50% said “no hesitation”. Furthermore, it should be noted here about 20% didn’t give their answers.

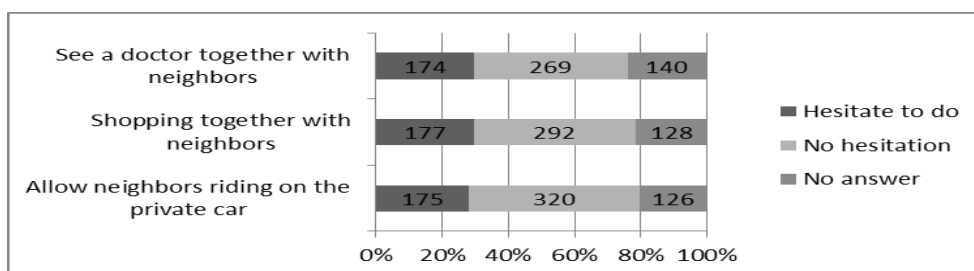


Figure 17. Hesitation for going out with neighbors

On the other hand, as shown in Figure 18, for both the first stage elderly people (65 through 74 years old) and the second stage elderly people (75 years old and older), the ride-share experience can reduce hesitation.



Moreover, as for the elderly people who have no ride-share experience, the percentage of elderly people feeling hesitation may get less along with being older.

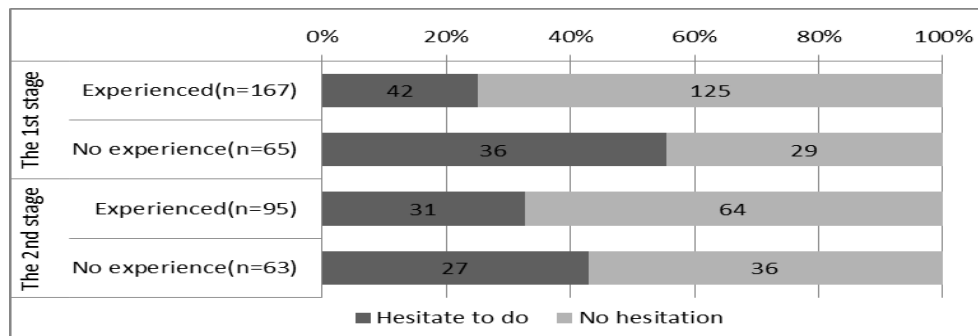


Figure 18. Hesitation for ride-share
(χ^2 Test: $p < 0.001^{**}$)

Finally, regarding ride-sharing service by elderly people, as shown in Figure 19, in the Ishino district, more than 50% have answered “don’t know” and more than 10% have no answer. These results may be because ride-sharing service is not legal in Japan, so the elderly people cannot imagine that. However, of the remained people, many elderly people responded actively to “be a driver”, “join for operation management”, “support for operation cost” and “supply parking place”. That is, if elderly drivers can drive cars safely and ride-sharing service is allowed legally someday, this business model should be studied again.

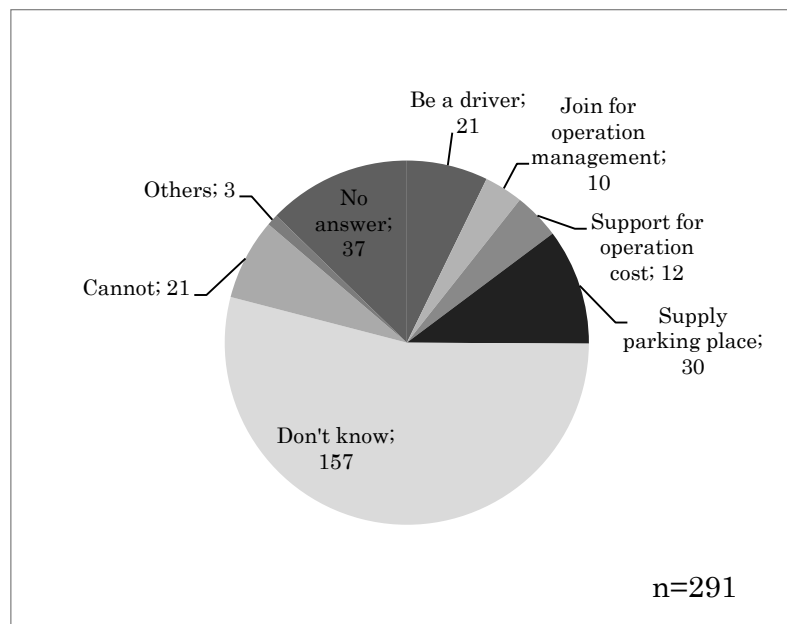


Figure 19. Considering on ride-sharing service by elderly in the Ishino district

Discussion and Conclusion

To make this aging society sustainable in Japan, the countermeasures securing mobility and accessibility of elderly people have been discussed for a long time in Japan and in the world. A sustainable public transportation system is evaluated to be the best solution although it is very difficult to achieve such a goal economically and socially. In addition, automated car has been considered to be omnipotent recently. However, we should know



there is quite a long way to the fully automated driving society from now. Regarding car driving of the elderly people, many studies have shown that the elderly drivers do not want to give up driving because of many factors. As a result, car driving share of all travel modes clearly increases. In Japan, the passenger cars ownership increased by 27 times from 1966 to 2016, and the proportion of elder drivers is increasing very much because of aging. Compared to 2015, the increasing rate of car drivers is approximate 0.1% in 2016. However, the increasing rate of elderly drivers who are 75 years old and older is about 7.3%. Meanwhile, the number of elder drivers will be continuously increasing in the coming 5 years.

Elder drivers are affected by impaired cognitive and visual capacity. These factors have caused more traffic accidents reasoned by elder drivers. Regarding automobile use of the elderly people, the Japanese government has released analysis reports many times on the traffic accidents. The fatalities in 24 hours caused by traffic accidents in Japan have been reduced to 3904 persons in 2016 from 6415 persons in 2006. However, the rate caused by elderly drivers is increased from 44.3% in 2006 to 54.8% in 2016. The increase of the traffic accidents share by the elderly drivers has been the serious social issue in Japan recently. Although we know that the major reason is that the percentage of the elderly people is increasing, more effective countermeasures are required. To reduce vehicle crashes due to elder drivers, Japanese government encourages elder drivers to return their driving licenses voluntarily by some incentives, such as discount tickets for taxi or buses and coupons for some commercial facilities including shopping centre and public bathhouse. The number of elder drivers surrendering driving licenses has increased by 12 times from 2006 to 2015. However, there is a significant difference between the metropolis and the local city in Japan. Compared to residents living in the local city such as Toyota City, residents living in the metropolis such as Tokyo are more likely to surrender their driving licenses, which might result from the fact that the well-developed public transportation system including buses or subways can provide transportation alternatives for elder drivers to go out for shopping or hospital. In contrast, residents living in the local city are reluctant to return their driving licenses, since most of the households are living in stand-alone houses located in suburban areas rather than houses centralized in urban areas. Private cars are indispensable for their daily activities such as leisure or going shopping.

As a good solution, automated driving is rapidly becoming the focus of attention to ensure the accessibility need of all people in the future. However, we should know that there is quite a long way to realize the fully automated driving society from now. Therefore, the most important issue goes to how to ensure the safety when the elderly people drive cars by themselves. In contrast, there are also some studies showing the elderly drivers have less traffic accidents. In addition, on the basis of the social experiment conducted in the Toyota city, the physical ability of the elderly drivers is becoming lower along with their aging. These results let us reconsider how to deal with the automobile driving by the elderly people. The positive effects of the driving should be evaluated fairly, too. In total, in the near future, the automobile driving for the elderly people should still be considered a good choice as their travel mode. Meanwhile, regarding the traffic accidents issue, the ADAS (advanced driver assistant system) technologies should be promoted more proactively in order to compensate the lower physical ability so that reduce the traffic accidents.

In this study, we have summarized results of the survey implemented in Toyota City, Japan. What we obtained from three targeted districts tell us that elderly people show similar behaviour and attitude with their mobility in their daily lives and for the future. Driving cars till 80 years old and older is expected by most of the elderly people. In order to help someone who may not be well to drive a car by himself/herself, the ride-sharing driven by other elderly people seems be good choice. By making use of the ADAS equipped cars, the ride-sharing service business which is operated by elderly drivers and is used by elderly people will be very realistic. Driving cars makes elderly drivers slow down their aging. Ride-sharing service let elderly people have more choices of travel mode so as to ensure their mobility even in the low developed public transportation system cities and areas.



Acknowledgements

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References

- Ando, R. et al. (2018). Effects of advanced driver assistance system for elderly's safe transportation - an analysis based on vehicles in Japanese market emphasizing the accessibility issues of the advanced driver assistance system, *SMART ACCESSIBILITY 2018 (The Third International Conference on Universal Accessibility in the Internet of Things and Smart Environments)*: 36-41.
- Ando, R., Higuchi, K., Liu, W. (2018). An analysis for reconsidering mobility of elderly people, *Proceedings of the 25th ITS (Intelligent Transport Systems) World Congress*, Paper: AP-TP1078.
- Hashimoto, S., Yamamoto, K. (2011). A study on intentional relinquishment of the driver license by residence characteristic. *Journal of the City Planning Institute of Japan* 46 (3): 769-774.
- Higuchi, K., Ando, R., Fukumoto, M. (2016). Relationship analysis of the elderly people of the activities and purpose in life – case study of the hilly and mountainous region in Toyota City, *Journal of the City Planning Institute of Japan* 51 (3): 513-518.
- Higuchi, K. et al. (2015). An analysis of preference for mobility of the elderly people - case study of the hilly and mountainous areas in Toyota City. *Proceedings of Infrastructure Planning of the Japan Society of Civil Engineer* 51.
- Higuchi, K. et al. (2016). Analysis of the delectation of the elderly people and mobility in meso-mountainous region. *Proceedings of Infrastructure Planning of the Japan Society of Civil Engineer* 53.
- Nishihori, Y. et al. (2015). Effect of car driving on quality of life for aged people, *Proceedings of IEEE International Smart Cities Conference 2015*.
- Nitta, Y., Mihoshi, A., Mori, Y. (1995). Basic study on special bus service planning for improving mobility of elderly, *Transactions of the Japan Society of Civil Engineers* 518: 43-54.
- Tao, K., Hashimoto, S. (2015). A study on anxiety of the future mobility in mountainous area. *JSTE Journal of Traffic Engineering* 1 (2) - Special Edition: A_165-A_171.
- Yang, J. et al. (2019). Examining the Important Factors Affecting the Decision to Cease Driving by Elder Drivers: Case Study of Toyota City, Japan, *Asian Transport Studies*. 5 (3), 480-492.



Teaching Situations that Support Functional Thinking

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Abstract

Functional thinking is a cognitive process specific to man. It enables analysis and synthesis of relations between objects and phenomena and facilitates the solution of theoretical and practical problems. Important for functional thinking are a sense of causality and dependence. In the field of education, mathematics and its applications are mainly devoted to the development of functional thinking, specifically in the topics of relationships and data processing. Recent research conducted in our Department of Mathematics focused on the use of knowledge and skills of first year mathematics student teachers in solving problems with functional content at all Czech Republic educational faculties using a non-standardized didactic test. In this article, we will discuss learning situations that support functional thinking using tasks selected from the above mentioned test. We consider the results of a qualitative piloting of mathematics teachers. It consisted of a non-standardized didactic test, non-standardized questionnaire and a space for a written evaluation of graph reading tasks and a discussion. It identifies a practice teachers reflection of the topic.

Keywords: functional thinking, teaching situations, teacher, mathematics, graphs

Introduction

Below, we will first state the basic concepts that we work with in this article, namely teaching situations and functional thinking. Then we briefly report on the research that was carried out a few years ago at the Department of Mathematics of the Faculty of Education, Palacký University in Olomouc, which we follow in this article.

Teaching is a pedagogical process in which the teacher, the pupil and the content of education are presented to meet the educational goals. Nowadays, teachers are encouraged to improve the quality of school teaching by using teaching theory, influenced by constructivism.

As stated by Češková (2016, p.532), *teaching situations* are specific in time and have locally limited encounters during which individuals are exposed to influences presented with specific learning objectives (learning tasks) by teachers, which pupils respond to in some way. We consider the learning task to be at the core of the teaching situation. Then circumstances of the teaching situation are considered to be a set of factors which may affect the inclusion of a given learning task in teaching. By external situational circumstances, we understand all the knowledge, experience and skills a pupil can use to solve a given task. By internal situational circumstances we understand the way how the learning task is dealt with in a particular lesson. According to Češková and Knecht (2016, p. 97), “the presence of problem-oriented learning tasks is a necessary condition for developing problem-solving competence in school education”. For more on this subject we refer to e.g. (Strobel & van Barneveld, 2009) and (Gijbels et al., 2005). For more details on the definition of the concept of a learning task, see (Medková, 2013, p. 41-53). Problems and their solution by pupils are among the current research topics of didactics of mathematics and are a permanent subject of interest in school practice (Vondrová et al., 2015).

The term of *functional thinking* was used at the turn of the 19th and 20th centuries by the German mathematician Felix Klein. Functional thinking is one of the cognitive processes specific to man. As the term itself emphasizes,



these are the processes involved in learning about reality. It is the activity of the brain in which information is processed. Above all, it enables to analyze and synthesize properties and relationships between objects and phenomena and solve theoretical and practical problems. Every person is born with certain inherent dispositions of intellectual abilities. The human brain likes to learn and develop, only it has to be forced into activity. The basic content of every education, as stated by current pedagogy textbooks, is above all education of thinking. If education lacks a tendency to develop the ability of thinking, this deficiency will manifest itself in emphasizing easier teaching methods. But it is impossible to think without knowledge. Necessary prerequisites for thinking are schemes of organized knowledge in our mind. Education and training in schools will ensure pupils to develop their thinking, teach them how to collect information, assess, sort and work with them independently. The development of functional thinking contributes positively to increasing the level and quality of the mind and intelligence of the individual, and its level influences the attitude to reality. A reliable path for developing functional thinking is in teaching mathematics.

Mathematical thinking can be divided into several groups: concrete thinking, abstract thinking, functional thinking, algorithmic thinking, spatial thinking and intuitive thinking.

A sense for causality of phenomena, a sense of dependence that is not directly related to the notion of a function and other accompanying phenomena of the notion of function, are important to functional thinking. It develops from the pre-school age of the individual. It is likely that early childhood education (parent consistency, causality in the family), children's literature - fairy tales (do things have their order?), etc., also have an effect on the establishment and level of functional thinking. In terms of didactics of mathematics, it is necessary to pay constant attention to the development of functional thinking.

The topic of functional thinking and the development of functional thinking in teaching mathematics at primary schools and lower grades of high schools can be found in (Eisenmann and Kopáčeková, 2006).

To write her dissertation "The level of functional thinking of mathematics students at the beginning of their studies at faculties of education in the Czech Republic" (Salvetová, 2014), Leona Salvětová conducted research on functional thinking. At all 8 Faculties of Education in the Czech Republic, 305 first year mathematics teacher students, future teachers of mathematics in lower grades of high schools, entered a non-standardized didactic test with 14 problems to solve. In the research, she investigated the use of knowledge and skills of mathematics students in solving tasks with functional content at faculties of education in the Czech Republic. She presents variables in the research, research questions and their hypotheses, analysis of test tasks, determines and verifies the formulated hypotheses and deals with the issue of measurement errors. She describes research tools and its properties, non-standardized didactic test (reliability, difficulty and sensitivity of tasks) and a questionnaire in which students answered questions related to previous study at high school and university and characterizes the research set. It summarizes conclusions from statistical processing of research data and suggests recommendations for implementation in practice and further development of science and explains the contribution of the dissertation thesis to pedagogical practice. See (Salvetová, 2012), (Salvetová & Laitochová, 2012), (Laitochová & Salvětová, 2015), (Laitochová & Uhlířová, 2017).

Method

In the academic year of 2018/2019, we carried out qualitative piloting among 9 teachers of lower grades of high schools (pupils at the age of 11 to 15 years). It consisted of a non-standardized didactic test, a non-standardized questionnaire and a request for a written evaluation of graph reading tasks and a discussion.

The non-standardized didactic test consists of 3 tasks on reading graphs. Furthermore, the materials submitted to the involved teachers included a requirement for a written evaluation of the graph reading tasks. Respondents should justify the potential contribution of the tasks to the development of functional thinking, indicate the



expected difficulties with working with the task at lower grades of high schools and give recommendations for teachers how to work with the task at lower grades of high schools.

The authors used a questionnaire of their own design. The responses were indicated on a four-point Likert scale. The questionnaire consisted of a total of six items focusing on the following areas:

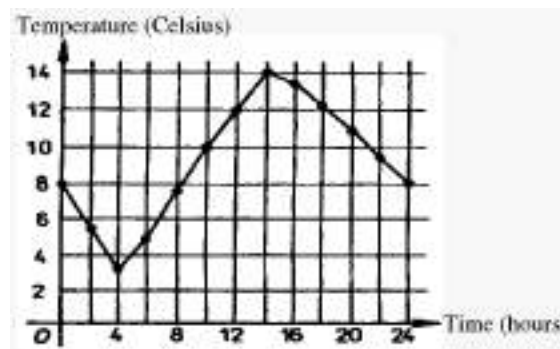
1. Respondents' knowledge of the term of functional thinking and ability to define the term of functional thinking.
2. Effectiveness of including reading graph tasks in mathematics classes.
3. Effect of reading graph tasks on the development of pupils' mathematical thinking.
4. Complexity of including reading graph tasks in mathematics classes in terms of the teacher's preparation.
5. Frequency of using reading graph tasks in mathematics classes by the teacher.
6. Readiness of teachers to include reading graph tasks in mathematics classes.

Submission of all completed materials was followed by a discussion of all participating teachers on the issue.

Findings

Now let's list the test tasks and their solution followed by evaluation, how teachers solved the tasks and how they evaluated them.

Task 1. The chart represents the dependence of temperature on time.



From the chart of the dependence of temperature on time, determine the temperature at 11 a. m. Circle the correct answer.

- a) 10 ° C
- b) 14 ° C
- c) 12 ° C
- d) 11 ° C

Quite an easy task, just need to carefully read the marked points on the axes on which time and temperature are plotted and fill in the missing data. The correct answer is d) 11 ° C.

Respondents from the ranks of teachers did not miss this task, so the success rate of the solution was 100%.

Let us give some teachers' comments on this example:

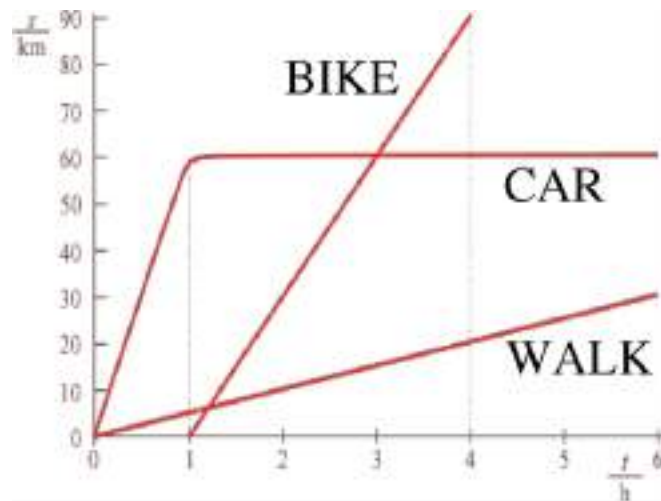
They see the contribution of the task to the development of functional thinking in the fact that the example develops an idea of the course of a dependent variable in a practical situation, "the temperature rises during the day and falls in the evening", furthermore, the example helps with orientation on the numeric axis, realizing that "only one temperature can be assigned at a time", "an image is worth a thousand words".

They report a problem with a "rough" scale as a possible difficulty, there is not enough data on the axis.



Recommendations for teachers: "To emphasize that this is not an end in itself, similar graphs are used not only by meteorology, but by physics (performance, torque versus speed), pharmacology (course of drug levels over time), etc.", "pupils see temperature change during the day - linked to science, geography or the problem of dressing", "recommend adding numbers to other points", "emphasize determining the size of one scale interval".

Task 2. A car, a pedestrian and a cyclist are moving along the same road. The chart represents the dependence of their trajectories on time. Determine after what time the cyclist met with the car.



Intermediate task, the graph contains three path-time curves. It is important to note that the cyclist leaves an hour after the pedestrian and the driver of the car. There are two ways to answer that: the cyclist and the car met 2 hours after the cyclist started or, equivalently, 3 hours after the car started.

Respondents of teachers achieved a success rate of 55.56%. It was only 5 out of 9 teachers that correctly solved the task. Here we must point out that inaccurate answers are incorrect answers.

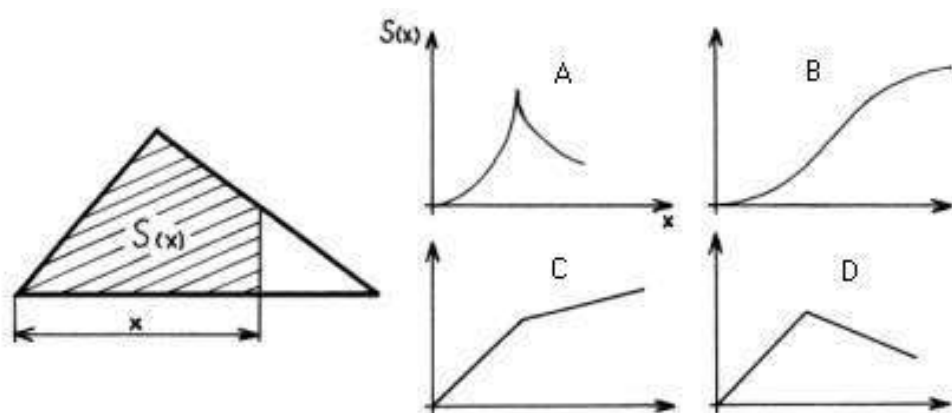
Let us give some teachers' comments on this example:

According to the respondents, the benefit is the creation of a "visual conception as a basis for solving motion problems", "the value of the directive specifies speed", it is possible to develop considerations about speed.

Teachers see the difficulty in explaining that "when the car is stopped, time runs on, so it does not stop in the graph, so the course is parallel to the x-axis", "cyclist embarks on a journey later than the car".

Recommendation: "to demonstrate the difference between a graph of path dependence on time and a graph of speed dependence on time", "teachers should emphasize the connection to physics – an average speed " (the movement of the body is discussed in physics in the 7th class), "to color differently the individual curves ", "to discuss with students whether they understand the assignment". One respondent sees a link to road safety.

Task 3. The charts on the right represent the dependence of the area of the shaded part of the triangle $S(x)$ on distance x . Only one of the charts corresponds to the situation. Circle it.



Difficult task, correct answer is B.

It should be noted that the graph we are looking for describes the hatched area of the triangle, depending on x . The area is not represented by a number. The point is to realize how the area changes with increasing x . The area increases with increasing x . This eliminates options A and D, because each graph has a region of decrease. Both options B and C seem to be possible. However, the area $S(x)$ does not grow linearly, which eliminates option C. The answer is option B. For this reason we can recommend to think about a similar task, which is created by replacing the triangle by a rectangle, whose one side lies on x -axis, in the original task. This task 3 can be solved “intuitively”. Of course, solvers with knowledge of integral calculus can use knowledge about the geometric meaning and applications of a definite integral.

Respondents of teachers achieved a success rate of 22.23%. Only 2 out of 9 teachers solved the problem correctly.

Let us give some teachers' comments on this example:

Only one respondent shows enthusiasm over this interesting task, most teachers think the task is too difficult. Teachers mostly recommend this task only for analysis with talented pupils or students of grammar schools, or as a supplementary task for students of lower grade of high schools. Two interesting ideas appear to be recommendations for teachers. The first one is the calculation of shaded parts for different x values, the second one is to illustrate the situation (“for example, when filling a container with water, fast inflow versus slow inflow - explain that slow inflow is still inflow, not outflow”).

Results, Conclusions and Recommendations

The following table shows the success of the three tasks in the case of the 2013 research conducted on first year students of all faculties of education in the Czech Republic (in the table briefly marked Student305) and in this year's survey with 9 teachers (briefly marked Teacher9). Obviously, the comparison is not indicative, the sample of teachers is small. The sample of teachers is small because we only performed qualitative piloting with them.

	success rate % Student305	success rate % Teacher9
Task 1	81,6	100
Task 2	73,8	55,6
Task 3	7,2	22,3



Finally, let's give a brief evaluation of the questionnaire. Most respondents state that they do not know the concept of functional thinking. None of them tried to give a definition of this term. Nevertheless, all respondents consider the inclusion of graph reading tasks as effective in the development of mathematical thinking and believe that these tasks contribute to the development of pupils' mathematical thinking. In view of the difficulty of preparing a teacher for a lesson with graph reading tasks, some teachers think that preparation is rather easy and the same number think it is rather demanding. The most varied answers were obtained for the question "How do you evaluate your current readiness to work with graph reading tasks?" One respondent replied "unprepared", two "rather unprepared", five "rather prepared" and one "prepared".

The benefit for all participants was the subsequent discussion on the issue. It first focused on the evaluation of examples. For Task 2, the issue of clarity of the task was discussed as well as the problem of divergent tasks was discussed. Task 3 led to a discussion on the difficulty of the task, problems pupils have with understanding the verbal tasks and modeling tasks.

Teachers agreed that the reading graphs tasks are useful and can be linked to everyday life: everyone encounters charts and graphs frequently, for example in newspapers and on the Internet. Working with graphs also supports the development of mathematical thinking. Most teachers tended to believe that modeling of mathematical situations is appropriate but challenging. They see the potential of using computer technology for graph tasks, they just need a background in suitable software.

In conclusion, tasks to promote functional thinking, specifically graph reading tasks, are important and necessary for the educational sphere, and need to be included in the classroom to a greater extent and already teacher students should be trained for that.

As one respondent wrote, "a graph is worth thousands of words, it just needs to be understood".

Acknowledgements

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References

- Češková, T., Knecht, P. (2016). *Analýza problémově orientovaných výukových situací ve výuce přírodovědy*, Orbis Scholae, 10 (2), 93–115.
- Češková, T. (2016) *Výukové situace rozvíjející kompetenci k řešení problémů: teoretický model jako východisko pro analýzu výuky*. In: Pedagogika, roč. 66, č. 5, 530–548.
- Eisenmann, P., Kopáček, A. (2006). *Rozvoj funkčního myšlení ve výuce matematiky na základní škole*. Praha: JČMF. ISBN 80-7044-817-2.
- Gijbels, D., Dochy, F., Van den Bossche, P., & Segers, M. (2005). *Effects of problem-based learning: A meta-analysis from the angle of assessment*. Review of Educational Research, 75(1), 27–61.
- Laitochová, J., Salvetová, L. (2015). *Functional thinking of pre-service mathematics teachers*. ICERI2015 Proceedings, 5781-5788.
- Laitochová J., Uhlířová, M., (2017). *Functional thinking as a part of mathematical literacy in lifelong learning*, Iclel 17 Conference Proceeding Book, 262-267. ISBN 978-605-66495-2-3
- Medková, I. (2013). *Dovednosti žáků ve výuce fyziky na základní škole*. Brno: MU.
- Vondrová, N., Rendl, M., et al. (2015). *Kritická místa matematiky základní školy v řešeních žáků*. Praha: Karolinum.
- Salvetová, L. (2012). *K aspektům funkčního myšlení*. In: Acta Universitatis Palackianae Olomouensis Facultas Paedagogica 2012. Olomouc, 2012. ISBN 978-80-244-3048-5.



- Salvetová, L., Laitochová, J. (2012). *A contribution to functional thinking*. In MATHEMATICA IV, Scientific Issues, Ružomberok: VERBUM - Catholic University in Ružomberok, s. 145-152.
- Salvetová, L. (2014). *Úroveň funkčního myšlení studentů matematiky na počátku jejich studia na pedagogických fakultách v ČR*. Disertační práce. Olomouc: Univerzita Palackého.
- Strobel, J., & van Barneveld, A. (2009). *When is PBL more effective? A meta-synthesis of meta-analyses comparing PBL to conventional classrooms*. Interdisciplinary Journal of Problem-Based Learning, 3(1), 44–58.



Directions of formation of favorable competitive environment in Azerbaijan's leasing services market

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Abstract

The article is dedicated to investigating existing competitive environment in the Azerbaijani leasing market, analyzing criteria and indicators characterizing it, identifying the ways in which the leasing company's marketing policy will be enhanced, and disclosing directions for the formation of a competitive environment in the country's market. For this purpose, the author has examined the major aspects of theoretical competition in the article, highlighting the competitive advantages of the leasing services market as well as the elements of the marketing mechanism that effectively operates in the market (price policy, frequency of services provided by leasing companies, intensity of consideration of initial leasing documents and claims), terms and conditions of leasing deals, advanced information technologies, corporate information systems, including the use of the Internet), the features of price formation for leasing services were disclosed, and SWOT analysis of Azerbaijani leasing market was conducted. In addition, the article highlights the importance of choosing the main strategic directions and competitive methods in the leasing services market, and has made relevant proposals to improve the leasing company's marketing policy as well as the formation of a favorable competitive environment in the leasing market of Azerbaijan as a whole.

Key words: leasing, services market competitive advantages, competitive environment, price formation, marketing policy

Introduction

In most of the companies and organizations intending to use leasing, a number of important issues appear, as one of the most attractive financial instruments for solving issues of renewal of key production assets. For example, do leasing business operators have the option of free choice, and which leasing companies are eligible to interact with, taking into account their business conduct? All these issues are directly related to the problems of competition in the leasing services market.

Theory and literature review

Selection of the price formation method in the leasing services market depends on both corporate interests and competition in the market. Well-known competitor Robin Cooper focuses on three major aspects of competition: price, quality and functionality (*Газман В.Д. 2006, 148с*). It can be logically considered that these components are directly related to competition in leasing business.

Because prices and quality are more standardized, competition sharply turns around leasing services functionality. This situation is characterized by flexible competition. This means that the strategic success of the leasing as a whole is that companies are finding that they are quiet and hasty in dealing with new projects and sources of financing for these projects (*Попмер М. 2005*).

The achievement of a larger share in the market is not always a goal for economic entities, including leasing. First of all, the company directed to the maximum value for its proprietors must meet the following conditions:

- Profitability;
- Positive cash flow;



- High profitability from capital investment;
- Not only high accounting profit, but also high economic profit.

Competitive advantages in leasing services market

Professor of Harvard University, Michael Porter called these factors competitive advantages (*Дейли Джон, 2004*). John Dale, a well-known consultant in the field of assessment, thinks that effective price formation is the basis of competitive advantage (*Самуэльсон Пол Э., Нордхаус Вильям Д, 2003*).

We consider that Azerbaijani leasing companies should be more prone to the advantages of the following rates at the current stage of economic development. These advantages include the elements of a marketing mechanism, which directly work from the very first days in the market:

1. Price policy. Based on this, leasing companies offer various offers to the market using price manipulation for their products.
2. The intensiveness of the services provided by the companies that are in the leasing relationship, the consideration of the initial leasing documents and claims.
3. The term of signing of leasing agreement. Of course, the size of the monthly lease payments is dependent in this process, and this does not assume little significance to the choice of a company for the customer. It should be noted that, while determining the lease term, the leasing company takes the lease's liquidity, its value, and other factors.
4. The use of advanced information technologies, corporate information systems, including the use of the Internet.

Information about competitors is not limited to information about the prices offered only on leasing services offered. To compete, you need to have information about the conditions that are set by leasing companies- information about the types of products, contract terms, advance payments, and real increasing in leasing.

Formation of prices for leasing services is a strategic activity aimed at long-term prospect, as well as long-term outcomes that takes into account both consumers' and competitors' reaction. The price decisions of leasing companies can be taken in a number of circumstances, proceeding from the interests of signing of any certain agreement. However, this is a tactical decision, which, as a rule, is intended to maximize its profit or, to the contrary, comprise to the leasing agent.

The western countries have the practice of applying indicators that characterize the level of competition through the concentration and monopolization of the market. Thus, the US uses these indicators to make it clear that state authorities must be aware of the necessity of intervention to market mechanisms. Demand for such intervention occurs while considering market power rate of one or more enterprises, or more correctly, their excessive effects on their prices and production volumes.

The concentration ratio is used to measure market power. This ratio represents the share of four large enterprises in the field of production. In the case of net monopoly, the concentration will be about 100%, while in the competitive period it will be close to zero.

According to the estimates of American economists Paul Samuelson and William Nordrose, the high degree of concentration is that the share of four large companies in total production exceeds 60%. Low concentration occurs when the share of four large companies in the total output is less than 20%.



If the leasing company enters the market now or introduces a new type of service to the market, all the information about competitors is important. Therefore, the competitors' cardboard should be created in a definite way and it should be renewed and completed on a regular basis.

In the leasing services market, information collected on competitors can be quantitative and qualitative or actual and subjective.

As a rule, quantitative information answers the following questions:

- What kind of organizations can be competitors of the company?
- What services do companies provide, how and in what areas do these services?
- Who are the main customers of the companies?
- How do companies integrate their services into the market, how do they create favorable conditions for selling services?

However, the availability of emotional or quality features is crucial in evaluating of the services in the leasing service market due to the individual acceptance of services and by whom. Such information will always depend on it.

Qualitative characteristics can be included recognition of the entity, the professionalism of the staff, the quality of the service, the customer's loyalty, the entity's management, the marketing strategy and other non-formal indicators.

When it's time to collect real information, the peculiar analysis of many aspects of the opposing side requires intensive mental work.

In the leasing services market, collection of information about the opposing party is very different, and this is related to the creativity and professionalism of the company's staff. It is possible to create a list of opponents by utilizing many sources of information, adverts, and publications in the media.

Nowadays, it is not difficult to gather data on the most advanced enterprises in the leasing market with information and communication technology, mainly from the websites of the mentioned enterprises. Even it is also possible to get more useful information about competitors by using the services of the opponent party.

Collecting the above-mentioned information becomes easier when the service market is expanded to the area different from the product market. More precisely, this market is considered to be a local market. This is due to the fact that the service is not felt: it is also impossible to carry the services.

In the leasing service market, general information about the work with information systems is also applicable to information collected on competitors: it is necessary organizing the systematic gathering, evaluation of information, analyzing this information by experts, and organizing transmission of information to decision-makers.

However, it is required to consider the form of creating cardboard cards and its ways of checking it over time. When it comes to competitive advantage in the leasing service market, it is understood that sensory and non-sensitive rare assets belong to the firm. Competitive advantages are a different kind of activity where the strategy of business is very important factor to win the competition. Competitive advantages arise when the company earns more than the average income of its competitors or the market segment.



While defining competitive advantages in the leasing service market, referencing to customer inquiries, it is needed to ensure that competitive advantage is perceived by the company's customers. It is very characteristic for Azerbaijan that the enterprise believes that it has competitive advantages, but the consumer is unaware of it. Practically, we can see that, depending on the characteristics of the field and the market, there are many types of competitive advantages. In today's competitive environment, the company has to have several (4-5) competitive advantages as a rule. The competitive advantages of the leasing service market may be as follows:

- Famous name;
- Professionalism and practice of employees;
- High quality of service;
- Personal contact with customers;
- Putting the consumer, his inquiries and desires into the foreground;
- Favorable conditions for the sale of favorable advertising and services;
- Development of branches, admission points;
- Being in a strategic area;
- Good material base (staff, money, equipment);
- Additional service complex.

Taking into account these factors, it is expedient to note that the SWOT analysis of Azerbaijan's leasing market is as follows in the table below.

Table. SWOT analysis of leasing market of Azerbaijan

Strength	Opportunities
1. State support to leasing programs in priority areas of economy. 2. Uniform licensing and adaptation of leasing legislation 3. Tax, amortization, customs, investment concessions and privilege when implementing leasing projects 4. Simplification of judicial and administrative procedures during the confiscation of leasing subject from unfair leasing holder. 5. Transition of Leasing Companies to International Financial Reporting Standards (IFRS). 6. State-specific partnership during leasing operations	1. The use of leasing as one of the effective instruments in the implementation of strategic, nation-wide and regional development programs 2. Introducing new leasing programs, products and services 3. Diversification of financing sources of leasing activities, including Islamic finance. 4. Extensive use of the stock market mechanism for the development of leasing services 5. Creating conditions for the active involvement of foreign investments
Weakness	Threats
1. Unsteadiness of existing (commercial) leasing companies in the market 2. The unsteadiness and shortage of the leasing companies' stock base 3. Lack of "long" and "large" money in the investment process 4. Insufficient transparency of leasing companies 5. Absence of qualitative statistical reporting and information 6. Insufficient branching of commodity, field, and regional structure of leasing contracts	1. Strong foreign leasing companies' access to the Azerbaijani market 2. Unsteadiness of leasing legislation 3. Increase in inflation, increased cost of financial resources attracted by leasing companies 4. Deterioration of the quality of assets and leasing portfolio as a whole, increasing the risks of leasing operations

Selection of basic strategic directions in leasing services market

As a rule, competitive advantage can be considered as the basis for a separate leasing company strategy. The general direction of the leasing services market can be summarized as follows

- low-cost strategy; Nevertheless, it should be noted that competitive advantage prevails when low costs are achieved at the expense of less production costs compared to competitors;



- differentiated service strategy, i.e. the strategy of adapting the service to the needs of specific consumer groups;
- A strategy of innovative companies offering new services.

It is clear from the above that the company can more accurately determine its position in the market on the basis of analysis of competitive environment in leasing services market, and as a result, the company's position in the market can be strengthened and its successes can be further enhanced.

Comprehensive information about competitors helps to compare and regularly analyze the quantity and quality of leasing services, allows the market service experience of the leasing service company to be more competitive.

Regardless of the level of development of market relations in the republic, the fight against monopoly in the market and protection of competition are the main directions of the state's economic regulation function. The fight against unfair competition is regarded as an urgent matter regardless of the law of the leasing services market, the tradition of traditions and culture.

Competition is one of the factors influencing the production and sale of production facilities in the leasing market. In competition, prices and non-price methods are used. Price competitiveness leads to economic pragmatism in the market, and non-price competition improves sales methods, concessions, and advertising. It is important to note the importance of price and tariff regulations in this area.

There are conditions for the expansion of production of leasing services in our republic. However, demand for these products is currently being paid mainly through imports. Organization of competitive leasing services in our republic is one of the main tasks ahead. The competition fight reflects the natural state of market relations and is critical to the development of the competitive market. Competitiveness is also crucial in accelerating scientific and technical progress, as well as promoting the application of progressive forms of labor organization. In the market economy, domestic producers face with competitive environment in the domestic market rather than in foreign markets. One of the main tasks in this regard is to develop a competitive environment in the market. As a mechanism providing macroeconomic balance in the market economy, our country has created a necessary legislative base for competition development (the Constitution of the Republic of Azerbaijan, Anti-Monopoly Activity, Laws of Unfair Competition, Law on Advertising, etc.).

Leasing company's marketing policy and its improvement

Distinctive features of the leasing company's other business activities have a direct impact on the leasing company's marketing activity. The leasing company's marketing policy implies the marketing functionality of all levels of the leasing process and the implementation process of marketing philosophy and tools at all levels of the leasing process, which involves the realization of the marketing function in order to generate and reclaim the demand and the interests of the firm.

Relations with customers, banks, insurance companies are long-term and stable, where relationships with customers are largely discrete in leasing transactions. Thus, in the sphere of leasing services, marketing combines the principle of service marketing with respect to consumers, as well as the mutual influence marketing in relation to the remaining counterparties. This is conditioned by the specific features of the leasing.

From a marketing point of view, the mutual influence in the leasing industry is not only an essential element of entrepreneurial activity in the implementation of a business project, but also a prerequisite for contractual relations between all subjects of the leasing process, and allows each of them to achieve a certain level of profits through exchange of performance and results in long-term establishment of relations.



The mutual impact marketing for the leasing company demonstrates the multifaceted development of mutually beneficial forms of cooperation in the leasing industry, which is aimed at simultaneous involvement and use of all resources (human, mental, financial and material) to meet the requirements of the key leaseholders.

In order to achieve this, it is necessary to continually reconcile the marketing tools used with the changing requirements of the enterprise structure.

When formulating a marketing policy, a leasing company can use many marketing strategies. One of the most important types of leasing company's successful activity is the provision of financial efficiency. Here, key marketing strategies are strategies for increasing revenue and strategies to increase sales volumes.

A number of marketing strategies are used by leasing companies: additional functional development strategies (operational leasing, staff leasing); strategies for choosing perspective investment projects; a strategy to attract private equity and to attract less financial resources; a closer interaction strategy with suppliers; strategy for mastering new segments; commodity diversification strategy; a unique specialty strategy; portfolio diversification strategies; customer service strategy.

Stable positive trends in the Azerbaijani economy stimulate leasing companies to adopt new customer segments, especially through the introduction of new leasing services in the world. In addition, reducing marginal earnings of a leaser promotes strengthening of the company's marketing interest in the expansion of the portfolio, as well as intensifying the development of the product and the overall customer service level.

As for the number of leasing companies in Azerbaijan, the issue of their specialization is undoubtedly topical, as is the case in other countries where this sphere has already gained momentum. It can also be linked to the development of the non-oil sector in the strategic direction. Local leasing companies can be involved in serving certain government projects that will be implemented in various sectors of the sector.

Result of research

1. We believe that the main factor of the success of the leasing company in the market is the understanding of the marketing as integrated

Thus, it is offered to look at marketing within the leasing service in several ways:

- Leasing companies' marketing activities are a tool for managing decision-making to ensure the company's long-term and sustainable success. Improving its marketing policy envisages a change in the organization that creates the competitive advantage of the leasing company. Therefore, it is necessary to apply the standards of the company's restructuring and the procedure for the provision of leasing services.
- The leasing company's marketing activities should be viewed as a set of measures to interact with hardware suppliers and financial insiders. Here, marketing focuses on the acquisition of competitive advantages through a market-specific marketplace.
- Marketing activities in the leasing services industry should be viewed as the principle of the company's activity, consisting of the entire business of the enterprise consistently directed to the needs and needs of potential consumers. The leasing company applies a customer-oriented approach, where marketing is governed by the principle of enterprise management. Clients for leasing provide customers with leasing services understanding of their customers' needs and finding solutions to their problems. In this case, it is necessary to take into account market competitive advantages in relation to the price, quality and timing of the leasing service.



2. It is expedient to reflect the leasing opportunities of the national road map and its key sectors in the currently developed strategic roadmap. As it is well known, special attention is paid to priority directions of development of non-oil sector of Azerbaijan economy. It is necessary to note the creation of regional innovation zones in Azerbaijan, especially technics and agrarian parks of high technologies. In this regard, great prospects are opened for leasing. Thus, the main means of residents of these high-tech production facilities can be organized and can then be upgraded through leasing. Additionally, with the help of leasing, their goods and services can be realized in domestic and foreign markets. Therefore, in the development of technological and agropark development programs, in our opinion, it is necessary to consider the full potential of leasing business in solving their creation and activity.

3. Cancellation of VAT assigned for imported leasing objects in 2016 can be considered the most important step taken in this area. Thus, as most leasing companies failed to compete with banks because of VAT, the portfolio of leasing companies was transferred to the hands of banks. The adoption of this decision can be regarded as commendable. It is also important that such a decision be taken too soon to the real sector.

4. There is a great need for intensification of leasing application in the agrarian sphere. The Agroleasing Company is currently financed by the state budget on favorable terms. Leasing of technical equipment to the agrarian sector entrepreneurs with a low interest or interest rate would further strengthen this process. However, the lack of proper functioning in this area is a delay in the current process. Therefore, it is absolutely necessary to attract other leasing companies to that process. As a result of the benefits of the Agroleasing privileges and concessional financing, fair competition is created and the difficulties in obtaining the equipment they require are being abandoned.

5. Innovative leasing products should be brought to the republic in order to ensure the leasing development and achieve its international presence. Implementation of Islamic leasing in the country may be a new stage in the development of leasing sector in Azerbaijan. First of all, it is necessary to train the skilled cadres of the country in order to bring the Islamic leasing, or rather, the lease to Azerbaijan.

Development of the leasing sector in Azerbaijan can play a key role in the development of national economy. This, in turn, can ensure domestic demand and stimulation of export-oriented production.

References

- Amar Mehta, International Taxation of Cross-border Leasing Income, 2004
- Contino, Esq., Richard M. The Complete Equipment-Leasing Handbook: A Deal Maker's Guide with Forms, Checklists and Worksheets, Second Edition (Volume 2) 2nd Edition, 2015
- David G. Mayer, Business Leasing For Dummies? 2001
- Eric Cumley, 7 Secrets to Successful Apartment Leasing, 1996
- Frank J. Fabozzi and Peter K Nevitt, Equipment Leasing, 2000
- Robin Kooper when Lean Enterprises Collide.- Boston, Harvard Business School Press, 1995.
- Газман В.Д. Ценообразование лизинга. Учебное Пособие.-М.:ГУ ВШЭ, 2006, 148с.
- Дейли Джон. Эффективное ценообразование – основа конкурентного преимущества: Пер. с англ. – М.: Издательский дом «Вильямс», 2004.
- Портер М. Конкурентное преимущество. Как достичь высокого результата и обеспечить его устойчивость / Майкл Е. Портер; Пер. с англ.- Альпина Бизнес Букс, 2005.
10. Самуэльсон Пол Э., Нордхаус Вильям Д. Экономика: Пер. с англ.- М.: Издательский дом «Вильямс», 2003.



The Relationship of Cognitive Functions and Ability of Cooperation and Social Maturity

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Abstract

The presented paper aims to present the results of the pilot study of the issue and preparedness for the school of children in the Czech Republic. When starting compulsory schooling, the child's cognitive competence is usually assessed to predict the child's success in the teaching process. However, the child's ability to integrate into a group of classmates, to carry out common activities with them and to contribute to the creation of positive school class relationships also plays an important role. The research was carried out in order to map the level of preparedness for school for pre-school children in the kindergarten. The MaTeRS method used (Vlčková, Poláková, 2013) makes it possible to assess the developmental level of the child. In the partial research is assessed relationship of the level of cognitive competences and social adaptability skills of the child. Social adaptability is characterized by emotional maturity, social maturity and the ability to cooperate with other children. The research group consisted of 100 children of pre-school age in average age $5,74 \pm 0,71$ years. For the given research, the ethics committee obtained approval from the author's department. The research was realized by those kindergartens where their management agreed to cooperate within the research. Furthermore, the agreement of the legal representatives of each child was obtained. The purpose of the communication is to compare and update the survey of children's readiness for the school with other studies focused on the monitored area. The research was supported from grant IGA_PdF_2019_015. Mentioned problematics in this age category has not been studied further. At the same time, not only cognitive, but also social competences also contribute to the success of a person in different levels of education and last but not least in professional life.

Keywords: pre-school, maturity, cognitive competence, society

Introduction

In the area of school legislation, school maturity is understood as a condition for starting compulsory school attendance after the age of six, when the child is physically and mentally developed (Průcha, Walterová, Mareš, 2003). The issue of a complex assessment of the level of readiness of a particular child to start compulsory school attendance or a decision to postpone it, if any, is a crucial issue for its further development. Pre-school age is a significant period in the life of a child and his family, especially in the context of two changes, namely the crossing of the family framework and inclusion in institutional pre-school education, and at the end of the child's entry to school. As early as in the 60s, Jirásek (1992) stressed the importance of preparing a child to entering the school and states in this context that all children, not just children of employed mothers, should go to kindergarten because they have their own representation in pre-school education, which cannot be replaced in many ways by the best family education. The main goal of pre-school education is to achieve school maturity. It is called "education for schooling". Kováčová (1979), Bednářová, Šmardová (2010) also emphasize the importance of pre-school education and state that all aspects of the child's psyche are being developed and thus become an irreplaceable element to family education. Although many studies mention the positive impact of pre-school education, it is very difficult to distinguish its influence from the influence of spontaneous development and education within the family environment (Šmelová et al., 2012). In pre-school age, cognitive processes that are important for the perception and cognition of objective reality are significantly developing (Klenková, Kolbábková, 2003). According to Říčan (2009), perception is crucial when entering school. Perception forms the essence of knowledge and mediates direct experience (Kolláriková, Pupala, 2001). According to Vágnerová (2012), perception in pre-school age is global, non-analytical, focused on what the child is currently experiencing, or what is attracting his/her attention in the moment. At pre-school age, children face problems of orientation in time zones (yesterday, today, tomorrow). Visual perceptions dominate in the development of



perception. At the end of pre-school age, there is a development in the area of visual differentiation. The child is able to see the differences in the details in the picture, distinguishes the number and shape. The child then uses this ability in the process of distinguishing letters. An important role in pre-school is represented by imaginations, which are very colorful and rich. Gaps between perceived actions or individual details are often supplemented by so-called child confabulation (Šulová, 2004). These are fictional ideas that the child considers to be real. This phenomenon is called as eidetism (it may occur in some individuals for the whole life). Attention span is very short in pre-school children. Intentional attention can be developed and improved in the form of constructive games, but also, for example, domestic duties. Unwitting and mechanical memory predominate. As a result, children can easily remember different nursery rhymes or songs. They are looking for no meaning, content, but just focusing on rhythm and rhyming. At this age, children receive information both by mechanical learning and at the same time it is desirable to arouse interest in logical thinking, e.g. by telling a stories (Šimíčková et al., 2010). There is a big change in thinking in pre-school children. The child crosses to visual and intuitive thinking. Thinking is still egocentric. We talk about conceptual thinking at the end of the pre-school age, when the child uses thought operations such as analysis, synthesis and comparison. Typically, a child is unable to focus on multiple phenomena/actions at once. As for visual-motor and graphomotor development, it is obvious that motor skills relate to child's development. Movement and manipulation with small objects allows children to explore the world, play and become independent. In this period, the child should also be able to handle the drawing, especially the drawing of a figure with all the elements that belong to it (Šturma, Vágnerová, 1992). From the point of view of social and emotional development, a typical emotionality is typical for a pre-school child (Vágnerová, 2005). This period is important in shaping basic emotional manners. The emotional experience of a child is very intense, short-term and changeable. Pre-schoolers are able to control their emotions, they can reflect their mistakes, be able to regret, evaluate their behaviors and express dissatisfaction with their actions (Šulová, 2004). Typical is usually a cheerful mood, associated with the declining fear from the unknown. Social feelings such as love, friendship, hate, sympathy are at the forefront. Among the peers, cooperation, competition and development of empathy towards other people (Šulová, 2004) is developing. Most pre-school children want the company of their peers, seek contact with them, and friendship begins to form. The kindergarten is important for this period, thanks to which the individual gets contact with other children in the form of games and cooperation (Matějček, 2013). Successful management of school achievement is also influenced by emotional stability, coping with stressful situations and the ability to cope with possible failure. Hypersensitivity can lead the child out of balance. Fear, worry, and tension can cause poor pupil's performance. Emotional maturity is also related to social maturity. It is very important that a child is able to separate from his/her parents for several hours a day, listen to a teacher, know how to cooperate and perceive a teacher as an authority. An important part for coping with these critical situations is the ability to participate in the collective, communicate, cooperate with classmates, and a degree of conformal behavior towards authority and peers (Řičan, 1991, Cakirpaloglu, & Řehan, 2007, Cakirpaloglu, 2005). An important prerequisite for school success is understanding the difference between play and duty, as well as a positive attitude towards learning, emotional stability and the ability to resist frustration. Here we encounter the term "emotional intelligence" (Černý, Grofová, 2017). Its elements evolve mainly in early childhood, and the child's emotional abilities accompanies the child in the future. Emotional intelligence largely contributes to the pupil's success at school. One of the main motives of learning is a positive emotional relationship to school. Researches suggest that a pupil, who is emotionally and socially mature can better conform to a certain regime. Children, who attended kindergarten, are better prepared in this matter (Spáčilová, 2009). In this context, the Ministry of Education and Sport has taken a major step towards introducing a pre-primary education obligation in the Czech Republic since 1.9.2017 (Pugnerová, Dušková, 2019). This decision is based on the premise that pre-school education increases the chances of school achievement at the beginning of the educational period (ČŠI, 2019).

Research problem:



Currently, there is a growing tendency to postpone compulsory school attendance. It is estimated that the proportion of school postponement should not exceed 2% of the population year. These statements are based on the research from 2013/2014, when 38% of school attendance postponements were based on parents' own decisions (Pugnerová, Dušková, 2019). These are the facts that raise a high importance of mapping children's readiness for school (Šmelová et al., 2012).

Research questions:

Based on the research problem, we have identified three research questions:

RQ1: What are the differences in cognitive functions in the context of school readiness in terms of gender?

RQ2: What are the differences in social maturity in the context of school readiness in terms of gender differences?

RQ3: What is the relationship between cognitive functions and social maturity in the context of school readiness?

Method

The MaTeRS method was used in the research (Vlčková, Poláková, 2013). This is a standardized test within the DIS project “Diagnostics of Children and Pupils with Special Educational Needs” (CZ.1.07 / 1.2.00 / 14.0122), which was designed based on the empiricism of the pedagogical-psychological counseling staff. The starting point was the screening of school readiness in the child's natural environment (in kindergarten), which the child is attending. This eliminates the feelings of uncertainty and unsuccessfulness of the child in the test situation. MaTeRS can be administered in groups or individually. The authors point out that the test is tentative and generally maps: attention, maturity, work pace, degree of cooperation and overall social maturity, emotional maturity, level of speech skills, motivation for school attendance, interests and leisure activities of the child. The group part is administered in a group of a maximum of 10 children and maps the drawing of the figure, visual motor skills, graphomotorics and visual distinction. The individual part maps spatial perception, distinguishing of geometric shapes, hearing perception, numerical concepts, general knowledge and visual distinction. In the research, a group administration of 101 respondents was carried out, the number of boys was 50 and the number of girls 51, in the average age 5.1–6.9 years. These were children without postponement of compulsory school attendance and no specific needs. Data was processed using STATISTICA statistical software (version 13.4.0; Tibco Software, Inc., 2019). The analysis of the distribution of the individual results confirmed the normal distribution of the data and therefore parametric statistics, in particular descriptive statistics, Spearman correlations, T-test and Mann-Whitney U-Test were used. Testing was performed at $p \leq 0,05\%$ level of significance.

Findings

RQ1: What are the differences in cognitive functions in the context of school readiness in terms of gender?

The obtained data were processed by T-test. The results of the research showed that the differences between boys and girls were not significant (boys: $M = 38.92$, $Std.Dev. = 4.64$; girls: $M = 37.01$, $Std.Dev. = 6.54$), at a significance level of $p = 0.09$; $t = 1.68$. It could be said that school readiness for girls and boys was comparable, almost balanced.

RQ2: What are the differences in social maturity in the context of school readiness in terms of gender differences?

The data were processed by the Mann-Whitney U-Test. The results of the research showed that the differences between boys and girls occurred only to a small extent, differences were not significant (boys: Rank Sum =



2474,00; girls: Rank Sum = 2677,00; $p = 0,46$). It could be stated that the social maturity of girls and boys was comparable, almost balanced.

RQ3: What is the relationship between cognitive functions and social maturity in the context of school readiness?

The obtained data were processed by the Spearman correlation method. The results of the investigation confirmed significant positive correlations. Cognitive abilities positively correlate with social maturity. Statistical processing was at the significance level $p = 0.05$ (see Table 1).

Table 1: Correlation of cognitive functions and social maturity

Spearman Rank Order Correlations (Školní_zrlost in STATS_Mate MD pairwise deleted Marked correlations are significant at $p < ,05000$		
Variable	Var38	Var41
Var38	1,000000	0,433875
Var41	0,433875	1,000000

Legende: Var38= cognitive functions; Var41= social maturity

Results, Conclusions and Recommendations

The traditional issue of school maturity and the readiness of a child to start compulsory school attendance is a crucial issue in the broad context of school success or failure. The threat to the child in terms of his performance failure and the associated emotional social frustration is critical at the beginning of the way to education and future employment. All existing measures aim to develop conditions for optimizing the psychological development of children and therefore should be assessed primarily always in terms of the benefit of a particular child (Šmelová et al., 2012). In order to update the knowledge in this area, we have asked three research questions in the submitted paper. The first RQ1 concerned the finding of the existence of differences in cognitive functions in the context of school readiness in comparison of boys and girls. The subject of the research was dominantly graphomotoric, drawing and visual-motoric expression of children. The results of the investigation showed that differences between boys and girls occurred only to a small extent, differences were not significant. The same results were achieved by Šmelová et al. (2012). Nevertheless, the result surprised us, because the researches that show the existence of the anticipated differences is rather predominant and also empiricism is continuously strengthening this thesis. E.g. Bačová (2008) states that despite the numerous researches, there is still no clear answer to the question whether women and men (formerly boys and girls) are psychologically different. Perhaps the best answer is yes and no. Approaches are looking for a causal model of behavior of women and men in the spirit of the "innate vs. gained". In doing so, they prefer either biological or social influences, or seek to merge the contradictory explanation into a single - interactionist biosocial model. The differences between boys and girls have strong biological roots, which are generally reinforced by education. Boys are exposed to stimuli other than girls since early childhood and are rewarded for other behaviors (Low, 1989). Farkašová (1984) investigated parental behavior towards preschool children and found that parents behave differently to children depending on gender. In general, they are more strict to daughters, more demanding and punishing them more often. Matějček and Kadubcová (1984) state in their research that children react differently to parental acceptance or refusal, i.e. to a kind of parental warmth, and more dependence on its quality was found in boys. Matějček (2013) also draws attention to the disadvantageous position of boys from our authors. Novák, (1982) states that, for example, the level of verbal competence of children is considerably different. At the beginning of school attendance, some children are handicapped by failing to estimate their knowledge adequately, referring to the fact that differences do not arise during school attendance. At this time, they are already fixed, but the origin of the differences is, according to the authors, formed earlier, in the pre-



school age, or in the period of accelerated language development, when children rely primarily on the level of communication in the family. Authors draw attention to the possibility of a complementary program of verbal training especially for children with shortcomings of speech-communicative skills. They demonstrate the success of the method of association training on verbal alertness in girls, with the best progress being seen in children at the beginning of the average and below average follow-up. Kürti (1986) found a significant difference in academic achievement of Hungarian children in terms of gender, in favor of girls. Since her research group did not differ significantly in the measured intellectual abilities, the author assumes a higher level and effectiveness of schooling for girls. The author states that outer factors are strongly involved in shaping school achievement, and to a greater extent in girls. The most important factors of benefit are the ability to learn, fluid intelligence and outer factors - as an important part of performance motivation. However, performance motivation (Mareš, 2013) significantly correlates with neurotic tendency in girls; in boys, the relationship between performance motivation and neuroticism is negative, hence does not endanger their emotional stability as in girls. The second research question RQ2 investigated the differences in social maturity in the context of school readiness in terms of gender differences. Also there are no statistically significant findings in terms of gender differences. This is the same as the earlier studies, e.g. Diešková (1984), which states that other tasks by the child according to their gender are already assigned to the child at pre-school age. The author devotes herself to social readiness for school and believes that differences in intellectual between boys and girls are negligible in preschool age. On the other hand, the author of the currently used Orientation Test of School Maturity Jirásek (1992) proves a significantly better school success in girls, which confirms their better school maturity. According to him, the developmental advance of girls is about a quarter of a year in the preschool age. The most noticeable differences show up in activities with manual skill and senso-motor coordination. In performing tasks, girls tend to be more careful. The difference in mental abilities among children by gender does not only lie at the unequal pace of their pre-school development, but also has social causes. Elementary school attendance is the same for children of both sexes, placing the same demands and requirements on boys and girls, but better suited to girls (Janosova, 2008), as they have a greater chance of success due to more frequent reactive type of intelligence. Boys are more spontaneous in their thinking, their mental activity is more often based on their own stimuli and has more often signs of creative work (Pašková, Salbot, 2009). This feature of the boy's psyche is, on one hand, a valuable contradiction of unwanted mechanical learning, but on the other hand it can be the cause of school boys' failures. The third research question RQ3 assessed the relationship between cognitive functions and social maturity in the context of school readiness. The statistical processing revealed a positive correlation. The success in cognitive processes in the school readiness test thus positively correlates with social maturity. Child with well-developed cognitive processes also seems to be more socially mature. It can be said that it is a personality and cognitive harmony corresponding to a mature pattern of personality structure and dynamics. One cannot forget the connection with the development of the child's morality (later an adult). If cognitive processes, social maturity and moral development are consistent, we are talking about the post-conventional stage of moral development (Piaget, Inhelder, 2014). According to some authors (Musil, 2006), only about 25% of Americans reach post-conventional levels in adulthood. Other research points to the problematics of social maturity of pre-school children. Langmeier and Krejčířová (2006) report that, in assessing the school achievement of the first class children (N = 264), the youngest and oldest children, they found significant differences between the youngest, in many ways, not only in trivia but also in music, arts and physical education. At the same time, the youngest children showed themselves more indifferently, unruly, unfocused and were too playful (working and socially immature). Ohnheiser (2019) followed the most frequent manifestations of adaptation difficulties of children at the entrance to kindergarten: maladaptive manifestations were apparently found in 93%, possibly due to social and emotional immaturity (frequent crying of children and nostalgia for parents). Rausová (2014) states that rejection of contact with children and adults is at the root of the problem, resulting in crying, complaint and somatic manifestations. The Ministry of Education and Sports of the Czech Republic makes great efforts to develop social literacy and social competences of primary and secondary school pupils (ČŠI, 2019).



In the context of changes in pre-primary education in recent years (the introduction of pre-primary education obligations since 2017), there is a continuous debate on the quality of children's readiness, which seems to be crucial for later school success. Evaluation of the results of the presented research can provide a basis for possible practical precautions in the field of education, as well as for further refinement studies.

References

- Bačová, V. (2008). Problematika rodu v psychologii-sociální psychologie ženy a muže. In: Výrost, J., Slaměník, I. eds. Sociální psychologie. Praha: Grada. ISBN 978-80-247-1428-8.
- Bednářová, J., Šmardová, V. (2010). Školní zralost: Co by mělo umět dítě před vstupem do školy. Brno: Computer Press. ISBN 978-80-251-2569-4.
- Cakirpaloglu, S. Konformizmot kaj češkite i amerikanskite adolescenti. Annual 2008 (Ed. Jorde Jakimovski, PhD.), 2009, roč. 33, č. 1, s. 125-137. ISSN 0350-1825.
- Cakirpaloglu, S., Řehan, V. Konformita v dětském věku. Československá psychologie, 2007, roč. 51, č. 4, s. 398-409. ISSN 0009-062X.
- Černý, V. a Grofová, K. Děti a emoce: učíme děti vnímat, poznávat a pracovat se svými pocity. 2., doplněné vydání. Brno: Edika, 2017. 160 stran. ISBN 978-80-266-1125-7
- Česká školní inspekce (ČŠI) (2019). Rozvoj sociální gramotnosti na základních a středních školách ve školním roce 2017/2018. Tematická zpráva. Praha: Ministerstvo školství <https://www.csicr.cz/cz/Inspekci-cinnost-QL/Inspekci-cinnost>.
- Diešková, V. (1984). Rexlexivnosť-impulzivita a sociálna orientácia detí vo veku okolo 6 rokov. Psychológia a patopsychológia dieťaťa. Roč.19,č.5,s.387-396. ISSN 0555-5574.
- dítě. Brno: MC nakladatelství, 2003. ISBN 80-239-0082-X.
- Farkašová, E. (1984). Výchovné ťažkosti u detí predškolského veku. Psychológia a patopsychológia dieťaťa. Roč. 19, č.3, s. 299-310. ISSN 0555-5574.
- Janošová, P. (2008). Dívčí a chlapecká identita. Praha: Grada. ISBN 978-80-247-2284-9.
- Jirásek, J. (1992). Orientační test školní zralosti: Příručka. Bratislava: Psychodiagnostika.
- Klenková, J. a Kolbábková, H. (2003). Diagnostika předškoláka: správný vývoj řeči dítěte. Brno: MC nakladatelství. ISBN 80-239-0082-X.
- Kolláriková, Z., Pupala, B. (2001). Předškolní a primární pedagogika. Praha: Portál. ISBN 80-7178-585-7.
- Kováčová, E. (1979). Odraz niektorých charakteristík rodinného a školského prostredia v tvorivých výkonoch. Československá psychologie. Roč. 23,č.6,s.549-553. ISSN 0009-062X.
- Kürtiová, J. (1986). Utváření školské úspěšnosti dětí. Psychológia a patopsychológia dieťaťa. Roč. 21, č. 2, s. 137-151. ISSN 0555-5574.
- Langmeier, J., Krejčířová, D. Vývojová psychologie. Vyd. 2. Praha: Grada, 2006. ISBN 80-247-1284-9.
- Low, B. (1989). Cross-cultural patterns in the training of children-an evolutionary perspective. Journal of Comparative Psychology. Roč. 103. Č.4, s. 311-319. ISSN 0735-7036.
- Mareš, J. (2013). Pedagogická psychologie. Praha: Portál.
- Matějček, Z. (2013). Co, kdy a jak ve výchově dětí. Vyd. 6. Praha: Portál.
- Musil, J. (2006). Vývojová psychologie I. Zlín: Univerzita Tomáše Bati ve Zlíně.
- Novák, Z. (1982). Verbální složka intelektové schopnosti žáků. 1. vyd. Praha.
- Ohnheiser, H. (2019). Problematika adaptace dětí v mateřské škole. Bakalářská práce. Olomouc, PdF UP.
- Pašková, L., Salbot, V. (2009). Tvorivosť a jej rozvíjanie v škole. Banská Bystrica: PdF UMB, občianske združenie Pedagóg.
- Piaget, J. a Inhelder, B. (2014). Psychologie dítěte. Vyd. 6., V této edici 1. Praha: Portál. Klasici. ISBN 978-80-262-0691-0.
- Průcha, J., Mareš, J. a Walterová, E. (2003). Pedagogický slovník. 4., aktualiz. vyd. Praha: Portál. ISBN 80-7178-772-8.
- Pugnerová, M., Dušková, I. (2019). Z předškoláka školákem. Praha: Grada. ISBN 978-80-271-0573-1.



- Rausová, K. (2015). Adaptace dětí předškolního věku při nástupu do mateřské školy. [online]. [cit. 2018-10-23]. Brno. Bakalářská práce. Masaryková univerzita, Pedagogická fakulta, Katedra pedagogiky. Vedoucí práce Mgr. Tereza Škubalová. Dostupné z: file:///D:/Bakalářka/BP_Adaptace_deti_predskolniho_veku_pri_nastupu_do_MS.pdf
- Říčan, P. (1991). Dětská klinická psychologie. Praha: Avicenum. ISBN 80-201-0131-4.
- Říčan, P. (2009). Psychologie. 3., dopl. a upr. vyd. Praha: Portál. ISBN 978-80-7367-560-8.
- Šimíčková-Čížková, J. a kol. (2010). Přehled vývojové psychologie. 3., upr. vydání. Olomouc: Vydavatelství UP.
- Šmelová, E., Petrová, A., Plevová, I., Suralová, E., Ludíková, L., Dařílek, P., Pugnerová, M., Křeménková, L. (2012): Children's Readiness for Compulsory School Attendance in the Context of Selected EU Countries-Czech Republic, Slovakia, Slovenia, Poland. Olomouc: vydavatelství UP. ISBN 978-80-244-3370-7.
- Spáčilová, H. (2009). Pedagogická diagnostika v primární škole. Olomouc: Univerzita Palackého v Olomouci. ISBN 978-80-244-2264-0.
- Šturma, J., Vágnerová, M. (1992). Kresba postavy. Psychodiagnostika, Bratislava.
- Šulová, L. (2004). Raný psychický vývoj dítěte. Praha: Karolinum. ISBN 80-246-0877-4.
- Vágnerová, M. (2005). Vývojová psychologie I.: Dětství a dospívání. Praha: Karolinum.
- Vágnerová, M. (2012). Vývojová psychologie: dětství a dospívání. Praha: Karolinum. ISBN 978-80-246-2153-1.
- Vlčková, H., Poláková, S. (2013). MaTeRS (Test mapující připravenost pro školu). Praha: Národní ústav pro vzdělávání. www.nuv.cz.



The Comparison of Finnish and Turkish Higher Education Policies

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Abstract

Today, many researchers in the world include international comparative studies in their studies more increasingly. Since higher education policies shape societies, its importance is increasing. When the literature is examined, it is noteworthy that comparative studies on higher education have increased. In this study, higher education policies in Finland and Turkey are analyzed comparatively in the context of academic, economic, political and social perspectives. In addition, the integration of the principles of sustainable development and international policies into the activities of universities has been examined in this study. When the findings are analyzed, it is observed that the four dimensions of Finland's higher education policies in relation to the international perspective come to the fore: These are the policies that emphasize academic, economic, political and social reasons. In Turkey, the driving force in the context of policy-making towards the international dimension of higher education policy has been triggered by the inclusion of the Bologna process. Higher education in Turkey increasingly gets interested in international education policy during recent years and it is seen that they develop policies and strategies in higher education. It is observed that the regional strategies aimed at international student potential with Erasmus + Plus are followed, and universities included international strategies through CoHE. In addition, some initial recommendations were made for Turkish higher education in order to sustain sustainable development.

Keywords: Turkey, Finland, Higher Education Policy, Sustainability, Comparative Education.



Comparison of Organizational Commitment Levels of Teachers Working in Formal and Informal Religious Education Institutions

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Abstract

Formal religious education is the name given to religious education and training in schools affiliated to the Ministry of National Education. Informal religious education in comparison covers religious education activities carried out by the Presidency of Religious Affairs in Turkey. In this study, the organizational commitment levels of teachers who have equal professional qualifications and personal rights are compared. The population of the study consists of 328 Religious Culture and Moral Knowledge, Imam Hatip High Schools Vocational Lessons and Qur'an Course teachers working in Istanbul in 2019. "Organizational Commitment Scale" developed by Ustuner was used as data collection tool. As a result of the research, it was revealed that the commitment of the teachers in both groups was found either higher or the same. However it was found that teachers working in two different institutions had different perceptions about participation in management.

Keywords: Lifelong Education, Informal Education, Organizational Commitment, Religious Education,

Introduction

1.1 Formal and Informal Education

When we look at the issue of education in terms of religious education, it is seen that religious education activities are carried out in the form of both formal and Informal education activities. Formal religious education in its shortest definition is the religious education and training activities given in schools affiliated to the Ministry of National Education. It covers a wide range of subjects from Religious Culture and Moral Knowledge lesson in all schools to vocational lessons in Imam Hatip High Schools and Faculties of Theology in higher education (MEB, 1991). Informal religious education generally includes religious education activities carried out by the Presidency of Religious Affairs. One of the most important of these educational activities is the Qur'an Courses, which have existed since the foundation of the Republic (DİB, 2010). The main element of the Informal religious education activities carried out by the Presidency of Religious Affairs through teachers having pedagogical formation in the field of religious education are the Qur'an Courses, the only educational center that provides education for students of all age groups. It is unique because there is no alternative Informal education allowed. These are especially Imam Hatip High Schools and Theology Faculties. However, the only institution that serves as an Informal religious education institution is the Qur'an Course (Aydın, 2010). Formal and Informal education institutions are shown in Figure 1:

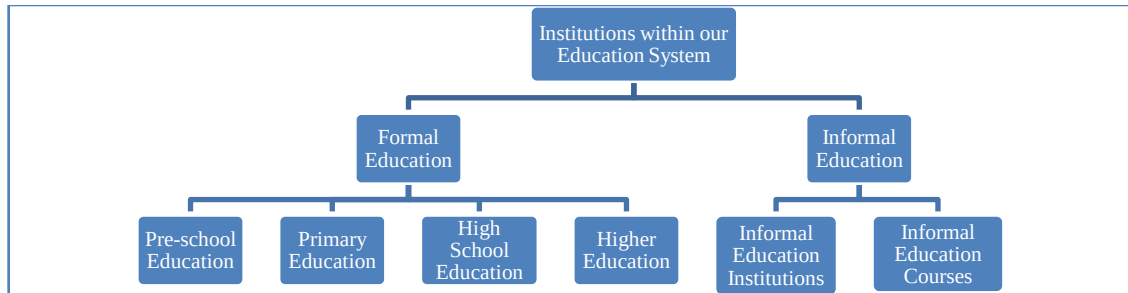


Figure 1: Institutions in Education System



1.2 Religious Education Teacher Groups

Religious Culture and Moral Knowledge and IHS Vocational Lessons Teachers working in schools affiliated with Ministry of National Education, and Qur'an Course teachers working in Qur'an Courses affiliated to Presidency of Religious Affairs are graduates of the same theology faculties and they have chosen this profession. On the one hand, they perform a profession with the status of a civil servant and on the other hand fulfill the responsibility adhered by religion.

The teachers who work in the Qur'an Courses are actually religious education teachers. In fact, it is a group of profession that should have different qualifications than the teachers of Religious Culture and Moral Knowledge and IHS Vocational Lessons in schools and whose task is relatively difficult and complicated (Aydın, 2010). Because Presidency of Religious Affairs, Qur'an Course teachers' qualifications gathered into three main groups: field competences, teaching-teaching competences and general cultural competences. In addition to the knowledge of the field, the teacher must also have the formation and knowledge of teaching in order to transfer the knowledge to the target audience. In addition to field and educational competencies, general knowledge of culture is necessary for a teacher, which enables students to relate their knowledge to their current lives (Öcal, 2001). Today, the most important factor for the Qur'an Course teacher to perform a different and perhaps more challenging task than the teachers of Religious Culture and Moral Knowledge and IHS Vocational Lessons in our schools is student profile. Students in schools are composed of significantly homogeneous groups in terms of their age and level of education. But in the Qur'an Courses, students from all ages, from pre-adolescence to adulthood, even to old age, participate in learning at all levels of education. In contrast to the homogeneity of the student group at school, there is quite heterogeneity in the Qur'an Courses. Providing education for people of different age and educational level presents many challenges in itself. This means that as a religious educator, the Qur'an Course teacher has to face more difficulties compared to the teachers of Religious Culture and Moral Knowledge and IHS Vocational Lessons in schools (Aydın, 2010).

1.3 Organizational Commitment

OC refers to the desire of employees to go to their workplace regularly, being at that workplace regularly, and integrating with that organization's objectives (Kell & Motowidlo, 2012), (Meyer, Stanley, Herscovitch, & Topolnysky, 2002), (Hogan, Lambert, & Griffin, 2013), (Devece, Palacios-Marqués, & Pilar Alguacil, 2016). Effective communication and commitment between individuals builds a strong organizational culture (Parsons & Urbanski, 2012). High levels of OC may result in adopting the values and goals of the organization, exhibiting enthusiasm and utmost efforts in line with the organizational interests, and willingness to continue membership in the organization (Balay, 2000), (Biskin, 2014). Organizations have used different criteria and quality standards based on the efficiency of the processes with the purpose of guaranteeing the continuous improvement commitment and organizational commitment is just one of those (Salas-Rueda, 2018). Among the factors affecting OC, the intra-organizational factors play an important role in teachers' OC. Scholars note that while personal factors such as age, marital status, and gender tend to be effective in groups of employees with low-status jobs (Chih & Lin, 2009), intra-organizational factors such as management, leadership, organization type, organization culture, organizational justice, and teamwork are more effective in groups of employees with high-status jobs (Koç & Bastas, 2019). For the latter group, variables such as participating in decision-making processes, role ambiguity, and autonomy come to the fore as much more important factors in terms of commitment (Cohen, 1992). School principals paying more attention to cooperation and sharing and fair treatment to teachers increases teachers' sense of justice and equality (Bastas & Öztuğ, 2012) and are of great importance in terms of maintaining OC (Lambert, Minor, Wells, & Hogan, 2016), (Johnson, Hays, Center, & Daley, 2004).

1.4 Problem

In this study, administrators and teachers in formal and Informal religious education institutions;

1. Organizational commitment (OC) levels will be measured. Factors affecting OC positively or negatively will be identified.



2. The OC of teachers whose professional qualifications and personal rights are the same but the types of institutions they work with are different from each other will be compared. In this way, the different characteristics of the two different dimensions of education (formal / Informal) and their specific difficulties will be determined to what extent teachers have affected their OC.

The problem sentence of the research is as follows: What is the level of OC of teachers in formal and Informal religious education institutions? What are the individual and organizational factors affecting their OC?

Sub-problems of the research are:

1. Is there a difference between the OC levels of teachers in formal and Informal religious education institutions?
2. Do the OC levels of teachers in formal and Informal religious education change according to individual and organizational factors? Research subject;
 - a. According to the task type variable,
 - b. According to the age variable,
 - c. According to gender variable,
 - d. According to the educational status variable,
 - e. According to seniority variable,
3. How does the quality of their work affect the level of OC of teachers?
4. How does self-development affect the levels of OC of teachers?
5. How does organizational climate and culture affect the levels of OC of teachers?
6. How do human relations and communication affect the level of OC of teachers?
7. How does the sense of belonging and belonging to management affect the level of OC of teachers?
8. How does the sense of in-house justice and trust affect the level of OC of teachers?

Method

2.1 Method of the research

The research was conducted according to the quantitative research method. The type of comparison for the teachers in the research subject was determined through relational screening. The screening model is a research model that describes the past or present as it exists (Karasar, 2004). The research model used in our study is shown in Figure 2:

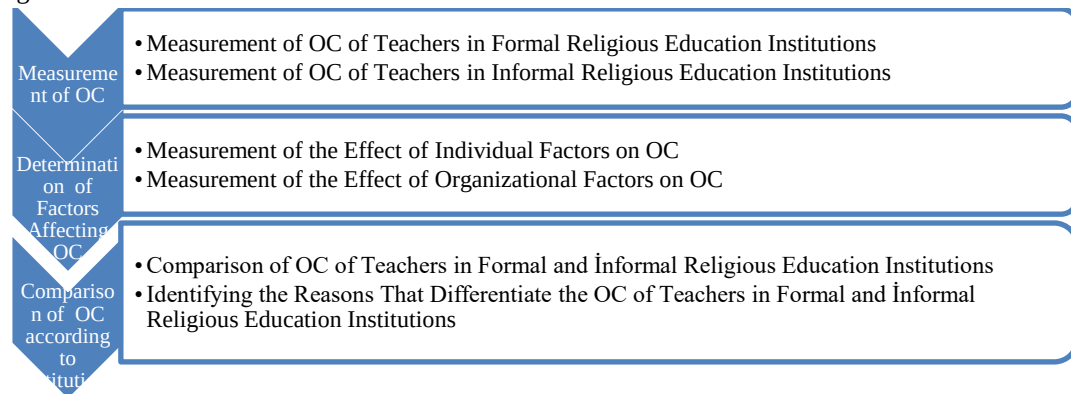


Figure 2: Research Model

2.2 Population-Sampling

The universe of the study consists of Religious Culture and Moral Knowledge and IHS Vocational Lessons Teachers and Qur'an Course Teachers who work in Kartal and Sancaktepe districts of Istanbul in 2018-2019 academic years. According to the information received from the National Education Directorates and Mufti Offices of both districts, this number is 463 in total.

The confidence interval was accepted as 0.01 and the margin of error as 0.05 in calculating the representation power of the sample group. As a result of the process, when the 1% confidence interval and 5% error margin are taken into consideration, the minimum number of samples that will represent the universe of 463 units of this study is calculated as 212 (Büyüköztürk, 2008).



According to this result, it can be said that the sample consisting of 328 units in the research is quite sufficient for the representation power of the study universe. Demographic characteristics of the participants in the quantitative dimension of the study are shown in Table 1:

Table 1. The Demographical Characteristics of the Participants in the Study

	Variable	N	%
Type of Institution	Formal Religious Education Institution	199	60,6
	Informal Religious Education Institution	129	39,4
Duty	Teacher	256	78
	Manager	72	22
Gender	Female	240	74
	Male	88	26
Education Status	Bachelor's	273	83
	Masters and PhD	55	17
Age	20-24	19	6
	25-29	50	15
	30-34	53	16
	35-39	69	21
	40-44	54	17
	45+	83	25
Duration Service in Institution	1-4	76	23
	5-9	107	33
	10-14	52	16
	15+	93	28
TOTAL		328	%100

2.3 Data Collection Tools

Literature was searched for the determination of data collection tools and related researches were examined. Ustuner's (2009) developed "OC Scale" is a scale consisting of 17 items and one dimension as a result of explanatory and confirmatory factor analysis. The internal consistency coefficient of the scale was .96 and the test-retest correlation coefficient was .88. These values have been accepted as proof that the scale can make a valid and reliable measurement in measuring teachers' OC level (Üstüner, 2009).

2.4 Reliability and Validity Of Data

The Cronbach's Alpha value of the 17-item OC scale was calculated as .95. This value indicates that the scale is a highly reliable scale. When the factor analysis was performed, the only factor containing the whole scale was found.

2.5 Analysis Techniques

SPSS 25.0 program was used for statistical analysis. Arithmetic means were obtained in the measurement of teachers' OCs. Since the 5-point Likert Scale used in the scales is an evaluation scale from 1 to 5, the score range corresponding to each option was determined by dividing it into five equal parts. Here, when rating applies, the lowest score to be obtained from 17 items would be 17 and the highest score would be 85. The highest score implies higher OC and the lowest score implies lower OC (Üstüner, 2009).

In this study, statistical methods compatible with every sub problems were used. First of all, reliability analysis was conducted and then Cronbach Alpha internal consistency coefficient was calculated. For demographic factors with 2 groups, t-test was applied. Also, intragroup differences were observed. Levene test, Anova test, Tukey HSD, Brown-Forsyth and Tamhane T2 test were applied in later stages.

In order to determine teachers' OC, weighted mean and standard deviation values of the answers were calculated within the context of items and dimensions.

Findings

The first item of our research is to determine whether there is a difference in OC levels of teachers in formal and Informal religious education institutions. The data showing this is given in Table 2:



Table 2. Organizational Commitment Levels of Teachers

Type of Institutions	Number of Participants	Arithmetic Mean	Standard Deviation	Level of Commitment
Formal Religious Education Institution	199	4,12	0,90	High Level
Informal Religious Education Institution	129	4,12	1,03	High Level

According to the results of the study, it was found that teachers in formal religious education and teachers in Informal religious education felt highly dependent on their institutions with the same score ($\chi=4,12$). Although the same score value had a high level of commitment in teacher groups, their responses to the 1st, 3rd and 15th items in the scale differed significantly from each other. These results are given in Table 3:

Table 3. The items that were found to be different between two groups in Organizational Commitment Scale

Question Code	Increases my organizational commitment	Teachers in Formal Religious Education Institution	Teachers in Informal Religious Education Institution
1	Me being included in planning, organizational and executive works in my school / course.	4,06	4,29
3	Me being a part of the management in this school	3,79	4,07
15	As my superiors appreciate my work	4,15	3,79

When the results in Table 3 are examined, the commitment levels of teachers in formal religious education institutions are lower than those in Informal religious education institutions, especially in terms of participation in management. As one of the reasons for this result, it can be said that the decision-making mechanism is more open to consultation since some of the Informal religious education institutions are composed of a single administrative teacher and some of them consist of a staff consisting of less teachers. However, teachers in Informal religious education think that they are significantly less appreciated than their counterparts in formal religious education.

When the OC levels of the teachers were compared according to their role as administrators or teachers in their institutions, no significant difference was observed between teachers and administrators in Informal religious education institutions. However, administrators in institutions providing formal religious education gave higher scores to all items of the scale, which would make a significant difference compared to teachers. These results are given in Figure 3:

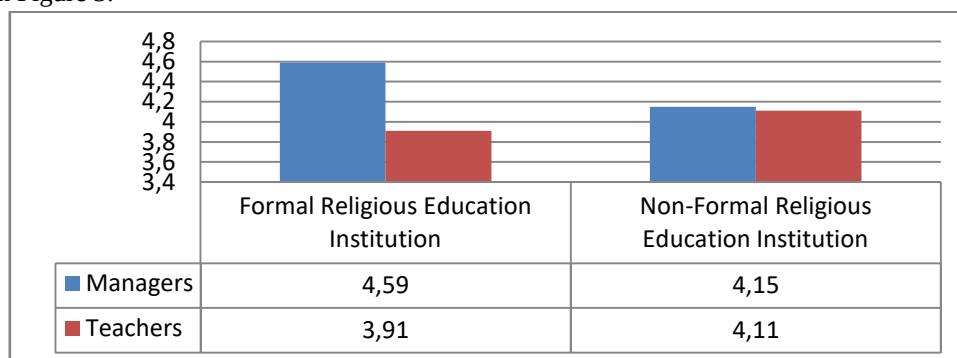


Figure 3: Commitment Levels of Teachers According to Duty Types

According to the results in Figure 3, administrators in schools affiliated to Ministry of National Education are the groups with the highest level of commitment among the groups ($\chi=4,59$). There is a significant difference when compared with the commitment levels of teachers in schools. As a result of this, the item with the highest score answered by the administrators in the schools I can work in this school outside of class hours without considering any monetary gain was the 12th question. The change in the type of duty between the administrators and teachers in the Qur'an Courses has no effect on the commitment. Both groups have a high level of commitment.



When the OC levels of the teachers were evaluated according to their gender, 99% of the participants in the Informal religious education parts of the study were women, as the Qur'an Courses were generally made up of women by their nature. For this reason, it was not possible to evaluate the commitment levels of the teachers in the Qur'an Courses in terms of male and female. However, teachers and administrators in schools have a more heterogeneous distribution and 43% of the participants in the formal religious education part of the research were women and 57% were men. When the OC of teachers in schools was evaluated according to gender variable, it was found that there was a significant difference between men and women in articles 4 and 11. The results showing this are given in Table 4

Table 4. Gender Variables Significantly Affecting Teachers' Organizational Commitment in Schools Connected to of National Education

Question Code	Increases my organizational commitment	Male Teachers	Female Teachers
4	My desire to overcome difficulties I face within the school	4,03	3,73
11	I feel I am a part of the management	3,98	3,58

Male teachers have a higher level of commitment than female teachers in terms of overcoming difficulties in school and participating in management. Male teachers in Ministry of National Education schools generally have a high level of OC, while female teachers have a moderate level of commitment in general. Almost all of the Qur'an Course teachers who participated in the study were female teachers and their commitment levels were found to be ($\chi=4.12$). The commitment levels of female teachers in the schools were found to be ($\chi=3.93$) and it was found to be lower than the female colleagues working in the Qur'an Courses.

When the OC levels of teachers (in terms of undergraduate and graduate-doctorate graduation) were compared according to their educational status, it was found that there was no significant difference on the OC of teachers in both formal and Informal religious education institutions. Accordingly, it can be stated that the educational status has no effect on the OC of religious education teachers.

When the OC levels of the teachers were analyzed according to the age variable, it was found that there were significant differences between both institutions and age groups. The results showing this are given in Figure 4:

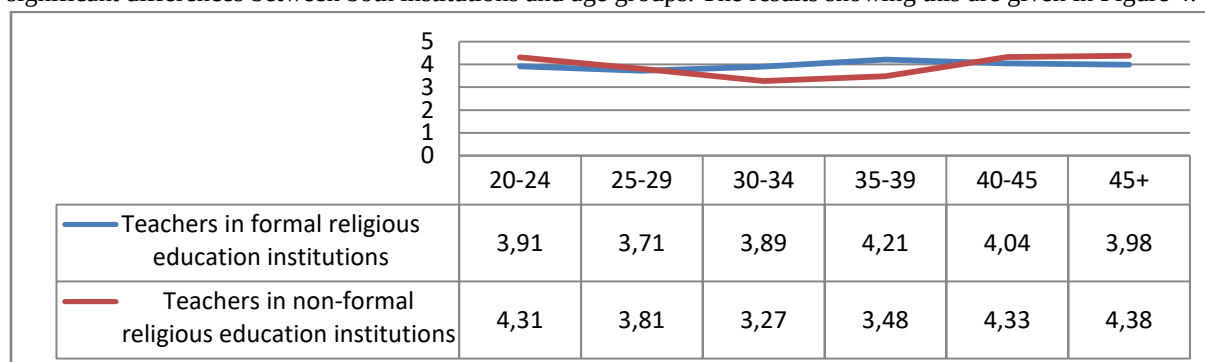


Figure 4: Comparison of Teachers' Organizational Commitment Levels According to Age Variable

As can be seen in Figure 4, when the commitment levels of teachers are evaluated according to age variable, similarities and differences occur between the institutions. Teachers in both institutions feel the lowest level of commitment in the 30-34 age range. In both institutions, a high level of commitment is observed in the first 5 years of the teachers' employment, followed by a decrease in the level of commitment. Both types of institutions also differ from each other. Although the highest commitment ($\chi=4.21$) of teachers in Ministry of National Education -affiliated schools was observed in the 35-39 age range, the highest commitment ($\chi=4.38$) of teachers in the Qur'an Courses was observed in the age group 45 and over.

When the relationship between teachers' OC and working time in their institutions was examined, it was found that there was no significant difference on the OC of teachers in both formal and Informal religious education institutions. According to this, although age variable is an important factor on the OC of religious education



teachers, it can be stated that the duration of service in the institution has no effect on the OC of religious education teachers.

In order to examine the effect of the character of their work on the OC levels of the teachers, the answers given to the 4th item in the scale were evaluated. The results are shown in Table 5:

Table 5. The Effect Of The Character Of Their Work On The Organizational Commitment Levels Of The Teachers

Question Code	Increases my organizational commitment	Teachers in Formal Religious Education Institution	Teachers in Informal Religious Education Institution
4	My desire to overcome difficulties I face within the school / course	3,93	3,97

It is seen that the difficulties arising from the institutions they work and the work they have have almost the same effect on the teachers who provide formal and Informal religious education. Both groups have a high level of commitment to their institutions despite the specific challenges of their work.

In order to examine the relationship between self-development opportunities and teachers' OC levels, responses to the 5th item of the scale were evaluated. The results are shown in Table 6:

Table 6. The Effect of Vocational Development Opportunities on Teachers' Organizational Commitment Levels

Question Code	Increases my organizational commitment	Teachers in Formal Religious Education Institution	Teachers in Informal Religious Education Institution
5	As there are vocational development opportunities in this school / course	3,89	3,92

It is seen that teachers who provide formal and Informal religious education have almost the same perception about the existence of professional development opportunities in the institutions they work for. Both groups think that their institutions offer high level of professional development opportunities. It can be said that teachers who have the opportunity to develop themselves in their institutions have experienced a high level of commitment.

In order to examine the relationship between organizational climate and culture and OC levels of teachers, responses to items 7th and 16th of the scale were evaluated. The results are shown in Table 7:

Table 7. The Effect of Organizational Climate and Culture on Teachers' Organizational Commitment Levels

Question Code	Increases my organizational commitment	Teachers in Formal Religious Education Institution	Teachers in Informal Religious Education Institution
7	As my school / course embraces a stable and development-oriented structure	4,29	4,17
16	The balance between freedom and responsibility prevailing in my school / course	4,11	4,09

When the perceptions of teachers about the organizational climate and culture in the institutions they work with are compared, it is seen that the values given by the religious education teachers in the schools are very high ($\chi=4.29$) and the teachers in the courses have high levels of ($\chi=4.17$).

The answers to the 15th and 17th items of the scale were evaluated in order to examine the relationship between human relations and communication and teachers' OC levels. The results are shown in Table 8:

Table 8. The Effects of Human Relations and Communication on Teachers' Organizational Commitment Levels

Question Code	Increases my organizational commitment	Teachers in Formal Religious Education Institution	Teachers in Informal Religious Education Institution
15	As my superiors appreciate my work	4,15	3,79
17	Because I think I am paid attention to and taken into consideration	4,16	4,23

Teachers in Ministry of National Education schools feel that they are both taken into account and appreciated by their administrators. However, the teachers at the Qur'an Courses think that even though they feel that they are being taken into consideration by their administrators, they are not appreciated by their superiors for the correct



work they have done. This item is one of the lowest value among the answers given by Informal religious teachers ($\chi=3,79$).

The answers to the items 1, 3, 11 and 14 in the scale were evaluated in order to examine the relationship between the level of participation and belonging to the administration and the OC levels of the teachers. The results are shown in Table 9:

Table 9. The Effect of Participation and Belonging to Management on Teachers' Organizational Commitment Levels

Question Code	Increases my organizational commitment	Teachers in Formal Religious Education Institution	Teachers in Informal Religious Education Institution
1	Me being included in planning, organizational and executive works in my school / course.	4,06	4,29
3	Me being a part of the management in this school	3,79	4,07
11	I feel I am a part of the management	3,85	3,74
14	As our managers encourage us to collaborate when they make decisions and solve problems	4,18	4,04

Teachers providing both formal and Informal religious education answered the 11th question (being part of the administration) with the lowest score ($\chi=3.74$) among the 17 items on the OC scale. In general, it can be said that teachers do not feel themselves as a part of management.

In order to examine the relationship between internal justice and trust and OC levels of teachers, responses to items 2, 10 and 13 of the scale were evaluated. The results are shown in Table 10:

Table 10. The Effect of Internal Justice and Trust Sense on Teachers' Organizational Commitment Levels

Question Code	Increases my organizational commitment	Teachers in Formal Religious Education Institution	Teachers in Informal Religious Education Institution
2	Because of the high level of trust prevailing in my school / course	4,16	4,26
10	Because of its just and considerate management	4,30	4,23
13	As performance is rated objectively rather than considering the performer	4,20	4,21

According to these results, it can be said that teachers experience a high level of trust and justice in their institutions. The value of the answers given by the participants to all three questions is almost the same. Formal and Informal religious teachers seem to have a high level of OC due to their sense of justice and trust.

Results, Conclusions and Recommendations

As a result of this study comparing the teachers working in formal religious education and the teachers working in Informal religious education, it was found that the commitment of the teachers in both groups was high and the same ($\chi=4,12$). However, when the teachers working in two different institutions were examined individually on the basis of the items on the scale of OC, it was found that there was a significant difference in two dimensions. In terms of participation in the administration, it was observed that the OC of the teachers working in Informal religious education was very high ($\chi=4.29$). In terms of being appreciated by their superiors, OC ($\chi=4.15$) of the teachers working in formal religious education was higher than the other group ($\chi=3.79$).

When the findings on the effects of demographic characteristics on teachers' OC were examined, it was seen that duty type, gender and age variables were the factors that caused significant differences between teacher groups. In terms of duty type, it was determined that the administrators in the schools providing formal religious education had a higher commitment in all items of the scale than the teachers. However, there was no difference between administrators and teachers in Informal religious education courses.

In terms of gender factor, male teachers in formal religious education show higher levels of commitment in terms of overcoming difficulties in school and participation in management than female teachers. Since the majority of the teachers in Informal religious education courses were female teachers, there was no opportunity for a healthy assessment within them.



When the age factor is considered, the commitment of teachers in both formal and Informal religious institutions follows a fluctuating course according to the age variable. The commitment levels of the teachers, who experienced a high commitment in the first years of their duties, then decreased. Then it started to rise again between the ages of 30-40. The difference between formal and Informal religious teachers is seen in the 40 and over age group. While the commitment level of teachers in Ministry of National Education -affiliated schools has declined again after the age of 40, the commitment levels of teachers in Qur'an Courses continue to increase. It was observed that the educational status and seniority variables did not make a significant difference on the commitment of the teachers in both formal and Informal education institutions.

Teachers in formal and Informal religious education institutions have the same level of qualifications of their work and their unique difficulties and their perceptions of the existence of professional development opportunities in their institutions, and they are of the same level and high quality. There are similar findings in the literature. Vocational development opportunities are the most important factor that connects teachers to school (Koç & Bastas, 2019). Besides teachers in both groups experience a sense of satisfaction arising from reputation's despite the difficulties of their work.

It can be said that teachers who provide both formal and Informal religious education do not feel themselves as part of the administration. They gave lower points to the articles related to participation in management than other items. In addition, teachers in Informal religious education courses feel that they are not appreciated by their superiors.

It can be said that teachers who provide both formal and Informal religious education experience a high level of trust and fairness towards their institutions.

Due to the nature of Informal education, the work of the teachers has its own difficulties. Because of students from all age groups participate in training at Qur'an Courses. In order to improve the quality of the education provided in the courses and to minimize the difficulties that the teachers may face, courses such as communication, social psychology, public relations and old age psychology can be included in the curriculum of the Faculties of Theology. In addition, various applications can be put in place to enable students to learn through this curriculum.

In the last year of the Faculty of Theology, prospective teachers go to schools as interns. Considering the fact that some of these students continue their professional lives as teachers of the Qur'an Courses in Presidency of Religious Affairs and that the school and course environment and student profiles are very different from each other, it can be considered that the Presidency of Religious Affairs should be included in the internship program. The possibilities of professional development, which are found to be among the factors that ensure high level of commitment of the teachers in religious education institutions, can be increased.

To correct teachers' perceptions of not being appreciated by their superiors, administrators can use an effective reward system for teachers' efforts and sacrifices.

One of the important factors that decrease the high level of commitment of teachers is their thoughts about not being able to participate in management, planning and decisions. It can be stated that the improvements of the institution at this point and the formation of a more democratic management structure will positively reflect the loyalty of the employees.

It would be appropriate for researchers to conduct both theoretical studies and field studies on the Qur'an Course teachers.

As a Informal education institution, researches and studies can be carried out on topics such as the curricula, materials and teaching methods and techniques of the Qur'an Course that have their own characteristics and difficulties.

Since the Qur'an Courses have different structural and managerial characteristics than formal education schools, researchers in educational administration can work on Informal education institutions to present due diligence and new model suggestions.



References

- Aydın, M. Ş. (2010). *Bir Din Eğitimi Kurumu Olarak Kuran Kursu* (2nd ed.). Ankara, Türkiye: DİB Yayınları.
- Balay, R. (2000). *Yönetici ve Öğretmenlerde Örgütsel Bağlılık*. Ankara, Turkey: Nobel Yayınları.
- Bastas, M., & Öztuğ, Ö. (2012). Öğretmenlerin Örgütsel Adalet Konusundaki Algılarının Örgütsel Bağlılıkları Üzerindeki Etkisi. (2), 125–133.
- Biskin, H. (2014). Examination of organizational commitment levels of physical education and sports teachers according to various variables (case study of Kutahya province). *Turkish Journal of Sport and Exercise*, 16(2), 89–89. <https://doi.org/10.15314/TJSE.201428111>
- Büyüköztürk, S. (2008). *Bilimsel Araştırma Yöntemleri*. Ankara, Turkey: Pegem Akademi Yayıncılık.
- Chih, W.-H., & Lin, Y.-A. (2009). The study of the antecedent factors of organisational commitment for high-tech industries in Taiwan. *Total Quality Management & Business Excellence*, 20(8), 799–815. <https://doi.org/10.1080/14783360903128082>
- Cohen, A. (1992). Antecedents of organizational commitment across occupational groups: A meta-analysis. *Journal of Organizational Behavior*, 13(6), 539–558. <https://doi.org/10.1002/job.4030130602>
- Devece, C., Palacios-Marqués, D., & Pilar Alguacil, M. (2016). Organizational commitment and its effects on organizational citizenship behavior in a high-unemployment environment. *Journal of Business Research*, 69(5), 1857–1861. <https://doi.org/10.1016/j.jbusres.2015.10.069>
- DİB. Diyanet İşleri Başkanlığı Yönergesi. , Madde 106 DİB Yönergesi § (2010).
- Hogan, N. L., Lambert, E. G., & Griffin, M. L. (2013). Loyalty, Love, and Investments: The Impact of Job Outcomes on the Organizational Commitment of Correctional Staff. *Criminal Justice and Behavior*, 40(4), 355–375. <https://doi.org/10.1177/0093854812469944>
- Johnson, K., Hays, C., Center, H., & Daley, C. (2004). Building capacity and sustainable prevention innovations: A sustainability planning model. *Evaluation and Program Planning*, 27(2), 135–149. <https://doi.org/10.1016/j.evalprogplan.2004.01.002>
- Karasar, N. (2004). *Bilimsel Araştırma Yöntemi*. Ankara, Türkiye: Nobel Yayınları.
- Kell, H. J., & Motowidlo, S. J. (2012). Deconstructing Organizational Commitment: Associations Among Its Affective and Cognitive Components, Personality Antecedents, and Behavioral Outcomes1: DECONSTRUCTING ORGANIZATIONAL COMMITMENT. *Journal of Applied Social Psychology*, 42(1), 213–251. <https://doi.org/10.1111/j.1559-1816.2011.00874.x>
- Koç, A., & Bastas, M. (2019). The Evaluation of the Project School Model in Terms of Organizational Sustainability and Its Effect on Teachers' Organizational Commitment. *Sustainability*, 11(13), 3549. <https://doi.org/10.3390/su11133549>
- Lambert, E. G., Minor, K. I., Wells, J. B., & Hogan, N. L. (2016). Social support's relationship to correctional staff job stress, job involvement, job satisfaction, and organizational commitment. *The Social Science Journal*, 53(1), 22–32. <https://doi.org/10.1016/j.soscij.2015.10.001>
- MEB. (1991). *VII. Milli Eğitim Şurası*. İstanbul, Türkiye.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnitsky, L. (2002). Affective, Continuance, and Normative Commitment to the Organization: A Meta-analysis of Antecedents, Correlates, and Consequences. *Journal of Vocational Behavior*, 61(1), 20–52. <https://doi.org/10.1006/jvbe.2001.1842>
- Öcal, M. (2001). *Din Eğitimi ve Öğretiminde Metotlar*. Ankara, Türkiye: TDV Yayınları.
- Parsons, M., & Urbanski, S. (2012). Recognizing Dysfunctional Communication as A Means Of Improving Organizational Practices. *Online Journal of Communication and Media Technologies*, 2(4), 155.
- Salas-Rueda, R. A. (2018). Analysis on the Use of Continuous Improvement, Technology and Flipped Classroom in the Teaching-Learning Process by means of Data Science. *Online Journal of Communication and Media Technologies*, 8(4), 325–343.
- Üstüner, M. (2009). *Teachers' Organizational Commitment Scale: A Validity and Reliability Study*. (10), 1–17.



Evaluation of Teachers Use Electronic Systems in Higher Education

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Abstract

The article researches the development mechanisms of using the e-management system by teachers in the example of the University of Economy, one of the leading universities of Azerbaijan. Application of a Learning Management System (LMS) in Azerbaijan State University of Economy and teachers' methodology of using lectures placed in LMS have been analyzed. Statistic data on uploading lectures to LMS system reveal that teachers' interest has been increased to the system. The problems related this system are also examined further, and some proposals have been put forward about the ways on how to solve the problems, the transition from traditional publication to e-publication, open education system, implementation pilot projects and the means to provide comfort and employment of students and teachers at the university. The article assesses strategically circumstances formed by external factors in order to check the impact on low usage of e-resources by teachers at the university. The primary purpose is to find the ways on how to increase the utilization of LMS system by teachers and give recommendations to them about it. The article also deals with one of the important requirements - the processes in the direction of nationalizing programs used in the e-management system.

Key words: e-management system, e-resource, e-lecture, interactive training, higher education, social reading.

Introduction

Azerbaijan has prioritized the establishment of the Azerbaijan Information Society as the main priority of state policy. Doing so will include structuring a single national electronic information space, the introduction of e-management systems in the higher education system, improving the use of electronic resources, identifying the ways to provide teachers and students with employment and comfort, and implementing different social reading programs apart from traditional lectures in classrooms while providing for information security and the elimination of electron retention¹.

The tendency of the society to embrace global informatization depends directly on the development of educational institutions. This requires the creation of an uninterrupted educational system that ensures that everyone will have access to a high-quality fundamental education according to each person's desires and needs that is available anywhere and anytime. For this reason, the introduction of electronic education related technology is essential to establishing such an education system.

E-training technology provides the most effective tools for directing people to new types of education and to

¹ See link: Innovations in Education and Teaching International. 2018;55
online: <https://srhe.tandfonline.com/doi/abs/10.1080/14703297.2018.1546608#.XV-yVvkzYps>



developing the skills and abilities needed for lifelong learning. E-education creates enormous opportunities for lifelong learning by building a bridge between labour and education. E-education is the bridge between labour activity and education today. In return, it makes broad opportunities for education along the life.

Method

Nowadays, much progress has been made on improving the internet resources of Azerbaijan. This has increased the interest of pedagogical staff in using the internet as an education tool in both secondary and high schools. Higher educational institutes of Azerbaijan have been provided with computers and internet services. Ongoing analysis shows that these are being used efficiently for various types of courses.

1. Current situation

Today, teachers enthusiastically prepare lessons using e-resources in the e-management system. The ways in which teachers communicate has undoubtedly changed recently. Many teachers now use public networking that is conducted on Facebook and Twitter in the place of face-to-face dialogue, and phone conversations. There is no real difference between these types of communication. For example, smart phones have become an integral part of student life that allows student to rapidly communicate with their friends and family “State Strategy under Development of Education in the Republic of Azerbaijan” was approved by an order dated October 24, 2013 of the President of the Republic of Azerbaijan². It says: “The role of education the economy has significantly increased in modern life. Education must not only serve to teach required skills and knowledge related to economics but must also serve to prepare citizens for their future life and integration into society comprehensively.

The most important role of education in economic life is to meet the educational requirements needed for the lives of human beings. Meanwhile, rapid innovations regularly require knowledge and skills to be refreshed. For this reason, skills and knowledge are required in order to master new smart technologies and relevant professions. Education plays an important role in the development of a knowledge-based economy.

Today’s information knowledge society creates a great opportunity to socialize individual knowledge via the internet environment. Azerbaijan has implemented many reforms in this direction. For this purpose, two documents have been approved namely the "Azerbaijan 2020: Look into the Future" Development Concept approved on December 29, 2012, by an order of the President of Azerbaijan² and “Strategic Road Maps for the Perspectives of the National Economy” approved on December 6, 2016 by the Republic of Azerbaijan³.

These state programs support the related sectors of the knowledge economy such as high quality education, effective fundamental science, knowledge production, high-end technologies, effective science such as technical venture business as well as the realization and transfer infrastructure of ideas. E-learning has been reflected by a number of documents approved for the development of the national educational system in Azerbaijan. Thus, the Law of the Republic of Azerbaijan No.833-IIIQ dated June 19, 2009 was approved.

Azerbaijan hosts more than 1 million internet users. Including 12% of the populations with a gender based breakdown of 69.9% male and 30.1% women. Those internet network users are grouped as follows: 36.4% at home, 23.0% in internet clubs, 19.8% at work, 14.9% at educational institutes, 2.1% in libraries, and 3.8% in other places⁴.

² See link: State Strategy under Development of Education in the Republic of Azerbaijan 2013, <https://edu.gov.az/en/page/473>

³ "Azerbaijan 2020: Look into the Future" Development Concept approved on December 29, 2012, by an order of the President of Azerbaijan, https://president.az/files/future_en.pdf

⁴ On some problems of the creation and development of green technologies in Azerbaijan



E-training processes are complex at the higher educational institutions of Azerbaijan.

- Development of methodological and normative base on Learning Management System (LMS) is in low level.
- Uncertainty of assessment criteria for the evaluation of e-training tools makes e-training realization processes complex.
- It is needed to achieve new goals by identifying critical features on LMS lectures between teacher and students.
- Teachers prefer to deliver lectures to students through e-system. However, the quality of lectures is not guaranteed

Existing problems have been analyzed during the research activity, and some proposals have been put forward to eliminate such problems.

2. Analysis of eduman training management system

We can set the research at Azerbaijan State University of Economics as an example. It has already been started to apply “e-university” model in the university. At the initial phase, the whole educational processes were fully electronized in the main building.

The system encircles students, teachers, information about alumni, lesson schedules, subject groups, calendar-thematic plans of subjects, and individual educational programs of students. Personal cabinets have been created for teachers and students. Electronic stands have been installed with an access to the system in the auditoriums. An electronic journal has replaced the paper journal. EDUMAN with national interface system has been practicing since 2015.

Not only students may be assessed but also teacher will be evaluated via this system. Thus, official assessment of teachers has been implemented since 2015 - 2016 academic year with a purpose of transition to differential salary.

The functions of EDUMAN training management system are the following:

- Obtain its reports automatically in multi-categories;
- Practice of "drag & drop" methodology of lesson schedules;
- Online accessibility of training materials to students by video, audio or different formats;
- Organize social network forums on hierarchical systems among university contingents;
- Upload lectures to teacher's cabinet in different formats;
- Conduct e-exams;

Organize written exam sheets without human intervention via barcode reading system and other innovative features;

The interactive software program is formed on Oracle/Java technologies and has more than 40 modules.

EDUMAN with national interface system has report and control mechanism on the success of students for mastering specific topics, the relevance of training to preliminary purposes, the practical application of the knowledge gained, and the effectiveness of the training. The most important elements of the system are the report on teaching processes. We can infer that investment on e training is effective.

3. Statistical indicators on uploading lectures to eduman system

According to our observations, statistical indicators on uploading lectures to EDUMAN system of departments increased significantly in the 2016-2017 academic year in the Azerbaijan State University of Economics. Thus, every teacher has uploaded his or her lectures on subjects per semester. We can also observe from the graph that electron activity of teachers has increased from time to time. It means there is enough progress on the 2015-2016



academic year. Now, let's have a look at the comparison analyzes on uploading lectures to system by departments comparing 2015-2016 to 2016-2017 academic years:

Table 1. Comparison of uploaded lectures to a Learning Management System by department

Nº	Department	Subject	Lecture 2015–2016	Lecture 2016–2017
1	Business management	35	46%	58%
2	The Azerbaijani language	19	68%	98%
3	Trade and customs management	81	59%	59%
4	Marketing	49	67%	68%
5	Humanitarian subjects	59	91%	68%
6	Management	67	70%	71%
7	Econometrics	22	68%	45%
8	Maths	52	56%	51%
9	Civil defense	15	80%	80%
10	International economics (English)	62	38%	45%
11	Examination of consumer goods	88	25%	19%
12	Standardization and certification	34	55%	49%
13	International economic relations	38	34%	38%
14	International relations	30	86%	87%
15	Economic theory	32	78%	76%
16	International economics	35	48%	43%
17	Regulation of the economy	47	36%	69%
18	Industry economy	46	69%	66%
19	Administration and economy of labor	36	56%	57%
20	Price and price formation	26	73%	69%
21	Economy and management of social fields	33	75%	73%
22	Economic law	36	72%	70%
23	Economy and protection of environment	67	62%	67%
24	Technology of catering products	67	47%	35%
25	Informatics	49	61%	67%
26	ICT and information economics	45	71%	69%
27	Design	30	53%	37%
28	Physics and chemistry	42	50%	34%
29	Technological machines and field equipments	80	53%	47%
30	Finance and financial institution	104	68%	67%
31	Statistics	28	78%	78%
32	Theoretical and practical economy	46	86%	86%
33	Foreign languages	89	6%	37%
34	Accounting and audit	76	49%	73%
35	The Russian language	34	2%	54%
36	Economics and management	69	7%	9%
Total:		1804	2043	2122



Figure 1 - A comparative analysis of the percentage of e-lectures available in 2016 and 2017

According to our research on 37 departments, we have seen that they used MS Excel software to build regression



equations for comparative analysis⁵. In our example, the linear regression equation will be shown as follows:

$$Y_j = ax + b \quad (1)$$

Here a is a regression. Thus, the linear regression is a sign of inclination. In our version, a shows a 2016-2017 academic year, and the coefficient b indicates the 2015-2016 academic year. Comparative analysis of departments is conducted for these years. Here j shows the number of observations on departments. In our version, j will equal to 37. Let's calculate with this formula:

$$R^2 = \frac{\sum (y_i^j - \bar{y})^2}{\sum (y_i - \bar{y})^2} \quad (2)$$

Having calculated in MS Excel, we got R determinate coefficient: $R^2 = 0,6583$ (3)

It shows the degree of conformity between the input and regression model. The linear regression equation is set for the following indicators:

$$Y = 0,05 * X + 0,86 \quad (4)$$

This is Darbin-Watson coefficient:

$$DW = 1,97 \quad (5)$$

Apparently, Darbin-Watson ratio is smaller than 2, and it means that autocorrelation is adequate for the indicators that are the parts of the equation. The Azerbaijan State University of Economics has achieved great success for continuous improvement of the national e-management system in 2017. Some important issues like registration of student and teaching staff, its management, uploading of the subject, lesson plans, lecture, presentations, interactive works, video-trainings as well as conducting student assessments and surveys, and setting exams are organized electronically by the system.

Students, as well as parents, can access the above-mentioned e-management system with individual ID numbers and passwords at any time and any place and get relevant information on a mobile basis. Integration of the system into the e-library of the university is organized.

The main goal here is to introduce innovative technologies to create a transparent and effective educational environment, improve the quality of education, and raise university management to the level of modern requirements.

We assume that as a result of the introduction of e-management systems in the university all stages of education will be informatized, transparency will be fully satisfied, and the quality of teaching will increase. We can set an example the results of the research for student's knowledge assessment done by the Azerbaijan State University of Economics through the e-management system.

University students can sit an exam by getting materials on every subject entering to student cabinet of system in Azerbaijani language called EDUMAN via a previously provided login and password in summer and winter sessions. Teachers prefer to deliver lectures to students through e-system. However, the quality of lectures is not guaranteed. Social reading initiatives aren't preferred during lectures in the auditoriums. Besides, e-books aren't used. However, trainers who participate in collaboration with students can form a productive environment of

⁵ Model evaluation of an Innovative Capital, OCT 12-14, 2016, 607-609. Web of Science
<https://ieeexplore.ieee.org/document/7991775>



social reading initiative for active learning. E-reading platform that enables social reading is not used. According to our researches, there is no any requirement to prepare lectures. It is one of the main problems⁶.

Lets use PEST analysis or macro environment analysis to find out the causes of the problem. PEST – is the political, economical, social (including legal and cultural) and technological environment. It is known that political changes in one sphere create economical changes in another sphere and in general, the changes in the economy can accelerate political activities and changes in its turn.

Table 2. Political, Economic, Social (including legal and cultural) and Technological environment analysis

Political	PEST analysis	
<i>Factor</i>	<i>Impact on educational institutes</i>	<i>Planned measure</i>
University does not provide teachers with free internet.	Teachers doesn't work on themselves	1.Teachers will be trained to use emails. 2.Conducts the EDUMAN trainings
Economic		
IT department closes	Reduction of budget	Testing teachers
Social		
Raising salaries	Preparation for distance lessons	Relevant salary
Technological		
Webcam, join to network, social network and online students-teachers	Demand for web-trainers for workshop in online social student groups	Electron Warehouse for Training materials, a new website for students and teachers for using the Open Source Web 3.0 interactivity.

We have to look through all factors in Table 1 - PEST analysis and explain its influence on the activity of high institutions by choosing the most important ones between them. Afterwards, we must mention the factor that has the most positive and negative impact on the macro environment of the university. Strategic environment is assessed which affects the low level of using e-resources of university teachers.

Results, Conclusions and Recommendations

The application of Internet resources and technologies in the educational system will enable people to increase their knowledge and skills by using internet resources and social services not making any payment or leaving their places⁷.

The PRT colloquium (mini-conference) program at the Sidney University of Australia was implemented at STEM departments. Teachers exchanged their experiences with colleagues at the university. Observations were conducted by pedagogical and disciplinary experts.

It would be better to apply practices acquired by PRT program in the Azerbaijan State University of Economics. In the course of the research, the following proposals were put forward about the existing situation based on the analysis and assessment:

- 1) It is necessary to develop the Learning Management System methodological and normative base.
- 2) It is necessary to determine an assessment criterion for the evaluation of e-training tools.
- 3) The rules for preparing lectures for electron environment at the universities must be developed and approved by the authority. Besides, there is a demand to evaluate teachers by students for their lectures. It means that teachers might be assessed for the percentage of students how they understand the lectures. The selection of a

⁶ Dean MD. A call to embrace social reading in higher education. *Innovations in Education and Teaching International*. 2016; <https://srhe.tandfonline.com/doi/abs/10.1080/14703297.2014.991934>

⁷ Helen Georgiou, Manjula Sharma & Amanda Ling. Peer review of teaching: What features matter? A case study within STEM faculties. *Innovations in Education and Teaching International*, 2018:55:2<https://www.tandfonline.com/doi/full/10.1080/14703297.2017.1342557>



teacher in the system can be implemented according to the percentage of students' acquisition. Under these conditions, the issue of improving the quality of lectures can be solved.

4) Information technology department, librarians and training designers of every university should lead to social reading initiatives not asking a charge for membership fees from teachers, students, and staff. So, some parts of the students and teachers' needs can best be solved by this way⁷.

5) It is recommended to prefer open education resources at universities and implement a pilot project in this direction.

6) It is possible to achieve new goals by identifying critical features on LMS lectures between teacher and students.

7) It is needed to define if there is any requirement to prepare lectures.

References

- ANTONI BADIA, CONSUELO GARCIA, JULIO MENESES. Emotions in response to teaching online: Exploring the factors influencing teachers in a fully online university. *Innovations in Education and Teaching International*. 2018;55:
- "STATE STRATEGY UNDER DEVELOPMENT OF EDUCATION IN AZERBAIJAN REPUBLIC" by Order No.13 dated 24.10.2013. Baku, Azerbaijan. 2013.
- "AZERBAIJAN 2020: Look into the Future" Development Concept approved on December 29, 2012, by an order of the President of Azerbaijan
- DAWNE IRVING-BELL. Dynamic lecturing: Research-based strategies to enhance lecture effectiveness. 2019;56
- DEAN MD. A call to embrace social reading in higher education. *Innovations in Education and Teaching International*. 2016; 53:296–305.
- CHUN-YING CHEN, YING-HSING YANG. Investigation of the effectiveness of common representational formats in online learner-paced software training materials. *Innovations in Education and Teaching International*. 2018;55:
- YVETTE BAGGEN, JARL K. KAMPEN, ANA NAIA, HARM J. A. BIEMANS, THOMAS LANS & MARTIN MULDER. Development and application of the opportunity identification competence assessment test (OICAT) in higher education. *Innovations in Education and Teaching International*. 2018;55:735-745
- MAYKE W. C. VEREIJKEN, ROELAND M. VAN DER RIJST, Arnout Jan de Beaufort, Jan H. van Driel & Friedo W. Dekker. Fostering first-year student learning through research integration into teaching: Student perceptions, beliefs about the value of research and student achievement. *Innovations in Education and Teaching International*. 2018;55:425-432
- MEHDIALIYEV A, MAZANOVA O, Ieee. On some problems of the creation and development of green technologies in Azerbaijan. 2013 7th International Conference on the Application of Information and Communication Technologies (Aict). 2013; Web of Science, Google Scholar:438–442.
- LYNNE S. WOLBERT, DORET J. DE RUYTER & ANDERS SCHINKEL. What kind of theory should theory on education for human flourishing be? *British Journal of Educational Studies* 2017, pp. 1–15
- HELEN GEORGIU, MANJULA SHARMA & AMANDA LING. Peer review of teaching: What features matter? A case study within STEM faculties. *Innovations in Education and Teaching International*, 2018;55:2, 190-200
- HUSEYNOVA ARZU, SALIFOVA TARANA, MAZANOVA OPHELYA, Estimation of innovation activity of the regions of the Azerbaijan republic. 37th International Scientific Conference on Economic and Social Development – "Socio Economic Problems of Sustainable Development" - Baku, 14-15 February 2019, 41-50; Web of Science.



Huseynova Arzu; Mazanova Ophelya, Model evaluation of an Innovative Capital, Конференция: 10th IEEE International Conference on Application of Information and Communication Technologies (AICT) : Baku, AZERBAIJAN: OCT 12-14, 2016, 607-609. Web of Science.



Ethical Aspects of the Teacher-Student Relationship

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Abstract

The personality of a teacher and his or her relationship to students has been a much-debated issue. The influence of a quality relationship between the teacher and the student during the complete educational process is beyond question. The presented article reflects on the ethical aspects of the teacher-student relationship. The study group included 127 students (practising or future teachers) of the Department of Education. Using the reminiscence method, the participants were asked to describe a situation when they felt somewhat harmed by a teacher. The research was designed as a concurrent immersed (grounded) strategy. The data was collected concurrently in terms of the qualitative and quantitative approach, however, the data acquired by one method are dominant in the research analysis (Cresswell, 2003). In our case, the qualitative data were the dominant data (acquired by in-depth analysis of the students' statements); the quantitative data (frequency) had more of an additional and enriching character. Our qualitative analytical work with data was based on procedures analogous to open axial coding within the Grounded Theory (Strauss, Corbin, 1999; Hendl, 2016). The students' ruminations pointed out examples of a pathogenic teacher-student relation, contradictory to ethical principles. Some reminiscences even related to the period of preschool development.

1 Introduction

There are many studies, both Czech and foreign, that deal with the issue of teacher-student communication and mutual relation (e.g. Mareš, Křivohlavý, 1995; Rogers, Freiberg, 1998; Hamre, Pianta, 2001; Meehan, Hughes, Cavell, 2003; Lee, 2012; Gillernová, Krejčová et al. 2012; Plevová, Badošek, Kimplová, 2016; Vacek, 2017 etc.). The main reason for this interest is the explanation force of this topic in understanding phenomena in the educational reality of the school environment. The pedagogical interaction is analysed from a point of view of many branches of science, including psychology. It is often emphasised that there are many factors in the interaction that create quite complicated structures and affect not only the influence teachers have on students, but also interactions between the students. Pedagogical communication with precisely defined time and spatial terms and conditions, a defined objective, content and rules of contact between the teacher and students is an important tool of pedagogical interaction. Through pedagogical communication, we not only provide information, but also attitudes, emotional relations or rules (Vališová et al., 2011). The teacher should educate and also cultivate the emotional aspect of the student's personality, his moral thinking and reasoning, ethical attitudes and values. It is the issue of values that was the centre of interest of humanistic psychology, the paradigms of which were also reflected in the field of education. The issue of humanisation of education was highly relevant in the USA in 1970s when Rogers published his first book (Rogers, Freiberg, 1969, 1998), in which the representative of humanistic psychology formulated, among others, his idea of the necessity to make the process of education more humane. From that perspective, a healthy relationship between the teacher and the student is based on *four basic requirements for the teacher's attitude towards the student* (Rogers, Freiberg, 1998; Rogers, 1994).

The first requirements is that the teacher be open, honest and true to the student (the requirement of congruence). Congruence is defined as harmony between experience and behaviour. Sometimes, transparency is referred as well. It is authenticity including the necessary tact and thoughtfulness.



The second requirement is that the teacher is capable of empathetic understanding (the requirement of empathy). It is an ability to be tactfully interested in how the student experiences the whole process of learning and the situation at school, which is the basis for understanding what is behind the student's behaviour. A genuine interest in the feelings of the others creates conditions for mutual liking (fondness) and thus the potential willingness to act in favour of the other (altruism). It is not for nothing that some authors consider empathy to be the cornerstone of moral development (e.g. Coles, 1998; Cain, Carnellor, 2008).

The third requirement is that the teacher approaches the student with kindness and respect of who the student is (the requirement of unconditional positive acceptance). Respect and reverence are based on acceptance of the student's personality as a value. It is the basic respect and reverence for the student, his feelings, opinions and behaviour.

The fourth requirement is that the teacher is consistent in her manifestations (the requirement of consistency). It means that the attitudes are not a mere teaching tool or method, but an integral part of her personality, an integral part of her educational ideology. It guarantees that her behaviour will be stable, consistent and unambiguous in spite of some situational variability. The purpose of this approach is to create an environment of "psychological safety" or mutual trust at school, where the student can move without worries and without any blocking defences (Rogers, Freiberg, 1998).

The quality of the relationship of the student with his environment has an immediate effect on forming his self-image as an important component of his global self-system. It is known that when the student's self-system is jeopardised, it can have a malformation effect on self-experiencing, and thus on healthy personality development (Kusák, 1991). Moreover, stressful interpersonal relations in a school environment may not only influence the student's overall resilience to school stressors, but also his general feeling of physical and mental fitness. The more the stressor jeopardises the student's self-esteem, the more difficult it becomes. The impossibility of forming healthy self-esteem of the student in the school environment creates conditions for deficit moral aspects of his self-fulfilment and personality growth. Therefore, the environment and the formation of suitable social terms and conditions for moral behaviour has a great influence on the healthy development of the student's moral judgement (Vališová et al., 2011; Mareš, 2013).

It turns out that the topic of teacher-student relations is the centre of interest of studies in relation to various variables. Despite this fact, there are still areas that we consider meaningful to map. One of them is to examine the teacher-student relation from the point of potential psychogenic damage to the student by the teacher. Psychogenic damage of a client due to an unprofessional approach is known in the medical sphere as iatropathogenesis (Honzák, 1999; Mareš, 2002). Terminology in the field of education has not been clarified, however, the experience shows that psychogenic damage of students due to the inappropriate approach of the teacher in a school environment does occur. It means that in some cases, the teacher's approach towards her student may be called pedagogically pathogenic. In this context, we were interested in how our participants remember their teachers, whether or not they experienced anything negative during their contact with teachers at school, and whether or not they felt that the teacher emotionally affected or harmed them with her behaviour and approach.

2 Problem Statement

The quality of the teacher-student relationship may substantially facilitate the fulfilment of educational objectives (a facilitating effect) or on the contrary, it can make the fulfilment more difficult (an inhibiting effect). The teacher-student relationship is thus justly considered to be one of the most important non-cognitive conditions determining the effectiveness of the teacher's educational effect. The objective of our study was to analyse any potential reminiscences of the participant's negative experience in the teacher-student relationship.



3 Research Questions

- 1) Have the students in our group ever experienced a situation when they felt harmed by the teacher's inappropriate approach?
- 2) If yes, what is the content of the reminiscences?

4 Research Methods, Research Sample

The research data were obtained in the form of a free written statement of the participants where each had the opportunity to express their comments to the observed topic using the reminiscence method. The reminiscence method is often used, for example, in seniors and it is based on recollecting memories of the experienced events in their lives (Janečková, Vacková, 2010; Špatenková, Bolonská, 2011).

The participants answered the following question: Have you ever experienced a situation when you felt harmed by the teacher's approach (and you still perceive it that way)?

The research was designed as a *concurrent immersed (grounded) strategy*. The data were collected concurrently in terms of the qualitative and quantitative approach, but in our case we considered the qualitative data (acquired by in-depth analysis of the written statements) to be dominant in the analysis. The obtained quantitative data (frequency) had a supplementing and enriching character within this type of examination (Cresswell, 2003). The qualitative analytical work with data was based on procedures analogous to open axial coding in the grounded theory (Strauss, Corbin, 1999).

The data were collected during 2018. The research group included students in the educational fields of study at the Palacky University's Faculty of Education in Olomouc, both full-time and distance learning. Out of the total sample of 127 participants, 123 participants answered the research question (97%). There were 81 women (66%) and 42 men (34%). The youngest participant was 20 years old and the oldest was 37 years old.

5 Findings

The analysis is based on the statements of 123 participants (current and future teachers) who provided their statements of a negative personal experience in the teacher-student relationship using the reminiscence method, covering the entire period of their school attendance.

5. 1 Analysis of the areas of reminiscences of psychogenic harm of the student by the teacher determination of basic categories

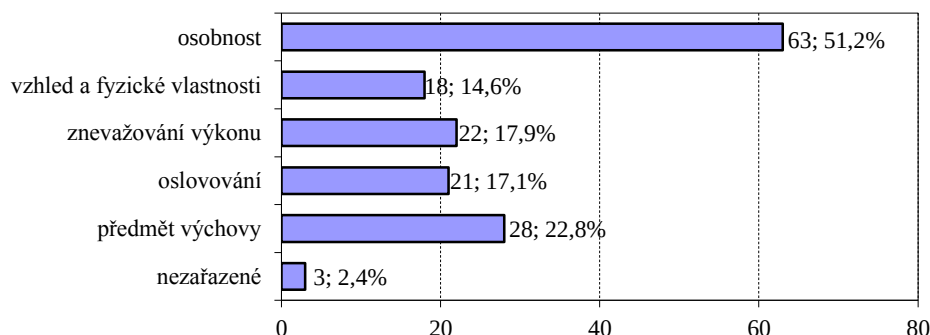
The analysis of the free statements of the participants showed that all reminiscences have one aspect in common. The pathogenic reality expressing devaluation of the student's self-esteem by the teacher was described in all cases.

The subsequent coding showed that the free statements concerning the devaluation of the student's self-esteem related to five basic categories: *personality, appearance and physical properties, disregard of performance, addressing the student, and subject of study – education*, unclassified statements¹ (Graph 1).

¹The results of the analysis are organised in a system from the most general level of the area of study through the category levels to the most specific subcategories. Authentic statements of the participants are indicated by quotation marks in the text and they are written in cursive



Graph 1 List of categories of the psychogenic harm of the student by the teacher (devaluation of the student's self-esteem)



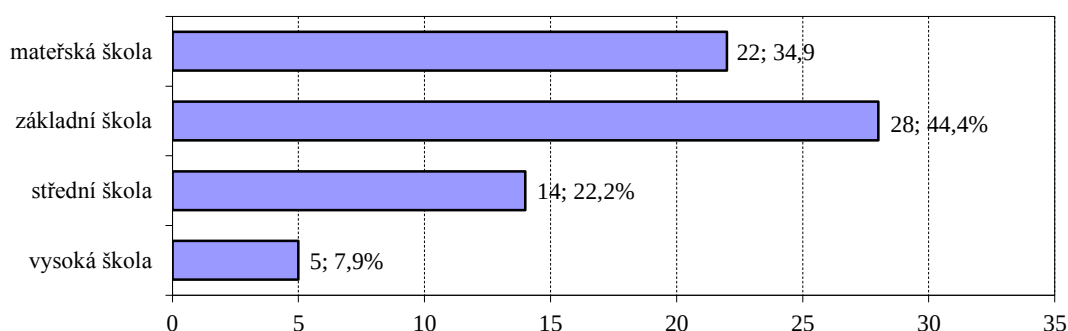
5. 2 Analysis of free statements within the determined categories

The following part presents the analyses of the free statements in the individual categories of the experienced harm by the teacher's behaviour. The participants expressed their reminiscences in relation to all the levels of education. They are memories that express humiliation (compromising self-esteem), helplessness and feelings of anxiety.

5. 2. 1 Personality category

Regarding the representation of negative experience in the **personality** category, 63 participants out of the total of 123 provided their statement (i.e. 51.2%). The personality category included reminiscences related to the feelings of humiliation (compromised self-esteem) and experienced helplessness. There are four subcategories in this category, related to the time occurrence of the experience: preschool (N=22, i.e. 34.9%), elementary school (N=28, i.e. 44.4%), high school (N=14, i.e. 22.2%), university (N=5, i.e. 7.9 %).

Graph 2. Subcategories of the time occurrence of the experience under the personality category



The preschool subcategory included more detailed subcategories in relation to eating, sleeping, cleanliness and art education (graph 2).

In the **preschool subcategory** (22 participants), negative reminiscences related to eating (11 participants), sleeping (5 participants), cleanliness (4 participants) and art education (2 participants). For illustration, here are some specific statements, e.g. one woman (24 years old) expressed her childhood experience in the following way: *"I still don't like tomato soup that I was forced to eat at preschool. I almost feel like vomiting when I see it."* One man (23 years old) remembered a horrible experience: *"I was forced to eat and then force-fed by the teacher. Then, I threw up and I had to eat the food that I threw up. I sometimes meet the teacher and I still have a strong feeling of injustice"*. In relation to sleep, the participants expressed feelings of anxiety that they experienced during nap time. *"When we lied down, we all had to close our eyes, otherwise the teacher would put a bandana over our eyes"* (woman, 28 years old). In relation to cleanliness, the participants described



“accidents” that they still remember. *“I started going to preschool quite early and unfortunately, I had an accident. When we played outside, I didn’t make it to WC in time and I had to go number two. I still remember that the teacher showered me in front of all the children as an exemplary case so that it wouldn’t happen again”* (woman, 31 years old). Two female participants stated their recent experiences with their own children. One woman (34 years old) said: *“When my son started preschool, I noticed that his artwork was not on display with the other children’s works. When I asked the teacher about it, she said that he couldn’t draw. My son gradually stopped drawing at home as well... until his first grade teacher improved his relation to drawing thanks to her approach.”*

Twenty-eight participants provided reminiscences in the period of **elementary school**. Once again, they related to feelings of humiliation (compromised self-esteem) and helplessness. One woman (34 years old) stated: *“...we had an older teacher for technical education at elementary school who liked to mock his students... he wanted us to have our things in military order, arranged in “columns”, and he checked everything every lesson. When someone forgot to bring something, he didn’t have to stay after school but had to go to “consulting lessons” to learn not to forget things... every two week, when I knew we had two lessons of technical education, I felt sick from the morning. I still remember that after 21 years and it brings up unpleasant feelings.”* In a similar way, one man (26 years old) stated: *“...when I didn’t know something in mathematics, the teacher let me stand next to the blackboard all the lesson. He didn’t pay any attention to me but I still perceive it as terrible humiliation.”*

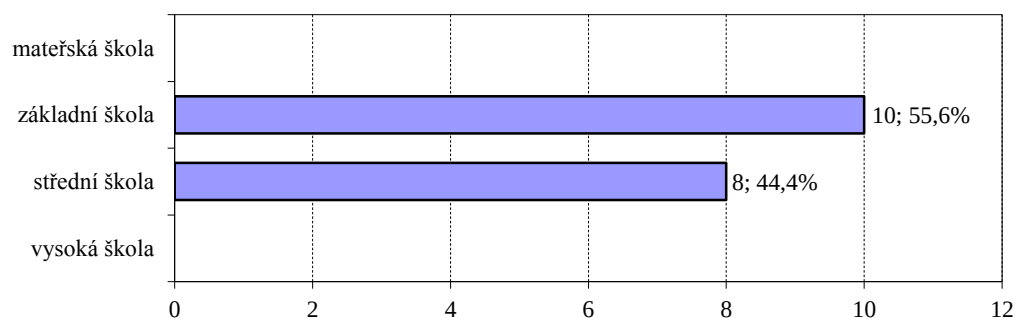
The period of **high school** included reminiscences of 14 participants, e.g. one woman (24 years old) stated the following: *“At high school, our physics teacher picked on me. Every lesson he would mock me, saying things like, oh, you’re the last one again, wrong again, nothing surprising etc., I still have nightmares about it and I don’t understand it.”*

As far as **university** is concerned, five participants provided their reminiscences. They all expressed a feeling of helplessness and humiliation when communication with a university teacher who was arrogant towards the students. *“I was always negatively paralysed by the arrogance and supremacy with which the professor behaved towards me”* (woman, 32 years old).

5. 2. 2 Appearance and physical properties category

In the **appearance and physical properties** category, eighteen participants described a negative experience (i.e. 14.6%). Two subcategories were registered in this category, related to the time occurrence of the negative experience: elementary school and high school (graph 3).

Graph 3. Subcategories of the time occurrence of the experience under the appearance and physical properties category



When we look at the **appearance and physical properties** category, a total of 18 participants stated their experience when a teacher pointed out their physical dispositions in an inappropriate manner. In all cases, it was inappropriate commenting on the appearance and physical look of the student. For example, one woman (32

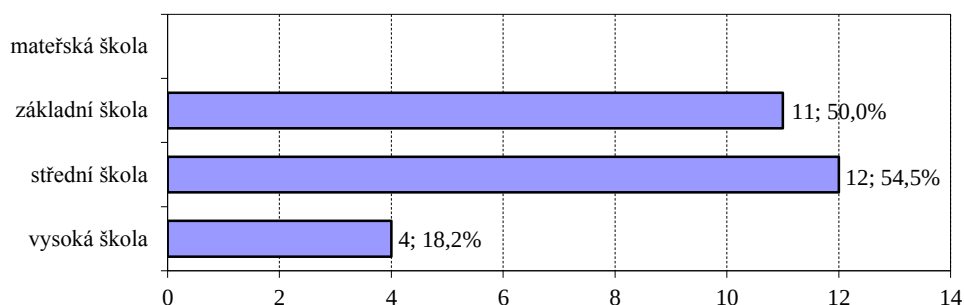


years old) remembered an unpleasant statement of her history teacher at high school: *“Such a big head and so little inside”*. A high school teacher told one female student: *“Well, once again, you have to lift your heavy butt and walk to the blackboard”* (woman, 29 years old). All statements are linked with the theme of devaluing the physical properties and appearance of the student as an important aspect in the development of identity and personality presentation.

5. 2. 3 Disregarding performance category

As far as **disregarding performance** is concerned, a total of 22 participants provided answers (i.e. 17.9%). Three subcategories were registered in this category in relation to the time occurrence of the experience: elementary school (11 participants), high school (12 participants), university (4 participants), see Graph No. 4.

Graf 4. Subcategories of the time occurrence of the negative experience under the disregarding performance category



At **elementary** and **high school**, performance was disregarded in various subjects of study. Some of the specific statements were: *“You can’t even count how much you earn, you are so stupid”*, a mathematics teacher said repeatedly to an eighth grade student (woman, 25 years old). *“Wrong again. If stupidity bloomed, we’d have blooming flower patches all over here thanks to you”*, (woman, 27 years old). *“When I was at high school, my math teacher informed me that she won’t let me take the final exam in mathematics because I had C in the test result... then I had to go to her office to prove that I definitely wasn’t that bad. But I always left with a feeling that she was just playing with me. After the last re-examination, she told me to come on the following day again, that she would have to think about it. She did let me take the final exam in the end but I was so nervous until she told me that that I bit through my top lip, I couldn’t sleep, I was nauseous. I still remember it with horror to this day”*, (woman, 32 years old).

There were some examples of disregarding performance and activity in the memories of **university** (4 participants). *“At university, there was this professor that we were afraid to ask about anything. He personally told me once that my question was so stupid that it couldn’t be answered. And he said in front of the others that I should consider dropping out of school”* (woman, 29 years old). One participant (woman, 31 years old) described a situation when a university teacher returned her seminar work saying *“I’m not going to read this nonsense of yours, get a job in a bar, you’ll do well there.”*

5. 2. 4 Addressing category

When we look at the **addressing category** within the context of monitored devaluation of the student’s self-esteem, twenty-one participants provided their statement (i.e. 17.1%). Two subcategories were registered in this category, in relation to **using nicknames and misrepresentation of name**.

Twelve participants described their experience with inappropriate nicknames that teachers used to call them. *“At elementary school, I started wearing dental braces. Our form teacher had a “sense of humour” and he started calling me the Dentist. From then, he would not use any other name to address me and it was very unpleasant.*

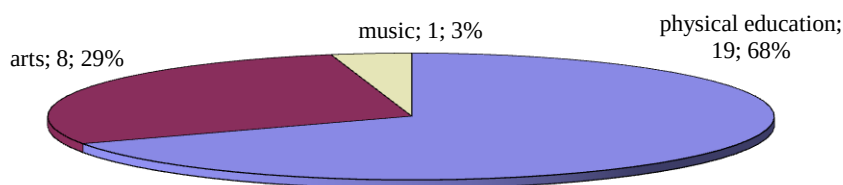


About a year later, I accidentally told my mom about it and she went to the school and asked the teacher not to use that nickname. He was allegedly very surprised because he thought I was okay with it” (man, 22 years old). Another participant (24 years old) described a situation at high school: “The teacher came up with nicknames for all of us and started to use them. It was devastating for me because he decided to call me the “turtle”. I still think about his attitude, which I consider humiliating”. Five participants gave examples when a teacher misrepresented their names on purpose. One woman (31 years old) described the following experience from elementary school: “My last name was Tvarůžková (TN: tvarůžky is a smelly cheese made in Olomouc, CZ) and one teacher often called me our stinker etc. It was fun for everyone else but not for me. Fortunately, he only taught us for one year”. “My name is Ptáček (TN: a little bird) and one teacher liked to call me a sparrow (man, 27 years old). This subcategory included the statements of four participants who stated that they did not like it when an elementary teacher used their last names. Considering the fact that addressing a person is an important part of one’s identity, then all the stated reminiscences are linked with devaluation of the student’s personality.

5. 2. 5 Education category

Teaching subjects such as arts and music has a positive potential in schools. However, our participants had some devastating experiences in these lessons. Twenty-eight participants provided their statements in this category. There were three subcategories (see Graph No. 5) related to **physical education** (19 participants), **arts** (8 participants) and **music** (1 participant).

Graph 5. Subcategories in the education category (N=28)



The stated reminiscences regarding PE lessons can be illustrated as follows: “When I recall PE lessons at high school, I feel nauseous. I remember gymnastics when we had to vault over the buck, I couldn’t do it and the teacher was quite loud about it. I used to have C from physical education in my school report, even though I did very well in the other subjects (woman, 30 years old). “You can’t do that, your butt is too big. That’s what my elementary PE teacher said about me in a PE class” (woman, 23 years old). Five participants stated their negative reminiscences about swimming lessons. “I still cannot swim, I used to get stomach ache before the swimming lessons. The most horrifying thing was the long pole that the teachers used to push us in water... it was horrible” (woman, 22 years old).

In art lessons, all participants mentioned the obvious disappointment of the teachers with their works. E.g. “What did you create again, this should be in the trash... this is what I still hear today when I remember one of my drawings that I really liked” (first year at elementary school, man, 23 years old). Similarly, in music lessons: “You should not even speak, let alone sing...” the teacher informs a student in fourth year at elementary school in front of the whole class. “I have never sung since then...” (man, 27 years old). All statements have one common aspect in the sense of inhibited motivation to perform in the given area, moreover, these statements are humiliating in relation to the student.

5. 2. 6 Unclassified category



Some of the statements belong in the **unclassified category**, in particular, statements provided by three participants who described reminiscences related to psychogenic harm in another environment than school. The participants stated their negative experience in the doctor-patient relationship.

6 Conclusion

There is no doubt about the moral level of any relationship, let alone the one between a teacher and a student. Above all, it is the mere fact that we contribute a moral value to our own behavior and the behavior of others. Moral evaluation always relates to something specifically human. It is possible to assume that everyone (thus a teacher as well) knows what is good and what is bad and that everyone knows that one should do good and not bad (Anzenbacher, 1994). The teacher should not only teach, but also raise his or her students, be a role model, cultivate the emotional and social aspects of their personality, their ethical attitudes and values.

6.1 Statement categories

Out of the total sample of 127 participants, 123 participants, i.e. 96.9% of the people addressed, provided their statements with regard to negative reminiscences from the school environment. Some reminiscences related to the experiences of the teacher-student relationship were in the recent past (in case of university), others reached further back in time (in case of statements about elementary school or preschool). The qualitative analysis of the individual statements is illustrated by the results of implemented coding. The stated quantitative data (frequency, %) are used for exemplifying the facts.

As stated, the majority of the participants experienced some emotionally hurting experience in the relationship with their teachers. More than a half of the participants expressed harm caused by the teacher in the **personality** category. This category showed to be the most frequent one. It included reminiscences where the participants felt humiliated by the teacher, accompanied with the feelings of helplessness and anxiety. All the statements are linked with the theme of compromising the student's self-esteem.

Almost 15% of the participants provided reminiscences in the categories of **appearance and physical properties** when the teacher commented on their physical appearance in an inappropriate manner. These categories included reminiscences related to the physical self, which becomes an important component of the self-system of the individual during adolescence.

Almost 18% of the participants stated **disregard of performance** when their performance or the effort to perform was disregarded by the teacher. The disregard of performance of the student by the teacher occurred at elementary school, high school as well as at university.

The negative feelings in the category of **addressing** had similar results, about 17% of participants stated a negative experience with inappropriate naming by the teacher. There are two subcategories in this category: nicknames and misrepresentation of the name.

The findings in the last category of **subject of study** are also alarming. About 23% of the participants stated their negative experience in the area of the subjects, most frequently situations of humiliation in the subcategories of physical education, then arts, and music. All reminiscences concerned the inhibiting effect of the teacher's approach on the student's interest, effort and thus impact on the fulfilment of the educational objectives in the individual subjects.

When we look at the aforesaid reminiscence categories, they are all linked with the theme of compromising self-esteem. As the findings in developmental psychology show, the judgements of close persons are very important for the development of self-esteem (Thorová, 2015; Mareš, 2013; Vágnerová, 2005; etc.) and these persons in



the system of education are, above all, teachers. When we consider the fact that the number of people who assess the child increases during the school attendance, then it is essential for the healthy development of personality that the child is accepted and assessed positively (Rogers, Freiberg, 1998). A positive evaluation by the surroundings is important in all developmental stages because it is natural that a person continuously strives to get a positive feedback from his or her surroundings and to have a positive opinion of himself or herself. The need to protect self-esteem may subsequently lead to avoidance of specific situations (activities) (Covington, Müeller, 2001; Thorová, 2015).

6. 2 Summary

Although it is known that a positive teacher-student relationship is fundamental for the educational process, we often experience the opposite in practice. The analysis of the free statements of the adult participants who remembered their experience from school using the reminiscence method indicates that all the statements (across the subcategories) are linked with one main motif. It is the experienced devaluation of the student's self-esteem due to the teacher's behaviour. If we take into consideration that self-esteem is the basic personality aspect and expresses the awareness of the level of perceiving one's value, then the impact of its disturbance on the student's personality is always undesirable. It affects the entire personality of the student at a motivation, emotional, cognitive and social level, and it inhibits his or her performance to some extent. The reminiscences can be expressed from various views. One of the explanations is the likelihood of the existence of the teacher's negative attitude towards students. Mareš (2013) states that this negative attitude makes it difficult for both parties to change the relationship. Such a teacher is much more critical to some students, his or her comments are full of negative emotions, irony and mocking. Also, Vágnerová (2005) points out that social perception and assessment of students depends on the professional experience and personality traits of the teacher. The teacher's attitude towards the individual students includes both intellect and emotions. According to the author, the main problem is not that the teacher often assesses students in a simplified manner, but that the teacher is not aware of that and that he or she is often not willing to admit the negative impact of his or her behaviour.

The manner in which the teacher approaches students, the way he or she speaks to the students, his or her facial expressions, how he or she evaluates their effort, all of that affects their school performance and their auto-reference. The student, whether experiencing a positive or negative attitude of the teacher, changes her effort, becomes more confident, or starts to have doubts about herself (Mareš, 2013). Although the development of self-esteem is also influenced by internal factors (temperament, social skills and the type of emotional experience), the emotional acceptance by close persons is fundamental for the healthy development of self-esteem and self-confidence of the student.

The results of the submitted study indicate an occurrence of the experience of negative emotions in contact with a generally significant personality, the teacher, in all five deduced categories. We are aware of the limits of our study, such as the selection of participants (students at the faculty of education), the method of data collection (free written statements), which provides for a level of subjective distortion, however, reminiscences at present document that it is an experience with subjective importance.

Within the context of traditionally required pedagogical-psychological competences of the teacher, our information in relation to the aforementioned results might sound a bit pessimistic. However, we believe that these facts should not be overlooked in the educational process. Considering the fact that our participants are studying in the field of education, we can optimistically assume that they have not been put off by their negative reminiscences and that they might be working towards empathy and quality communication with students.

Moral principles in relationships are fundamental for society as they always relate to something specifically human (Azenbacher, 1994) and they are especially important in education and upbringing (Vacek, 2017). The results of the qualitative analysis urge to reflect not only on some of the phenomena in Czech schools



(overloaded teachers, the burnout syndrome), but also on the university preparation of future teachers. We believe that it is important to discuss the ethical dimensions of human relationships, especially the ethical dimensions of the teacher-student relationship, with future teachers and to educate them in this sense better. In conclusion, we would like to emphasise that in spite of the stated facts we believe that most teachers do their job with love and corresponding pedagogical tact.

References

- Azenbacher, A. (1994). *Úvod do etiky*. Praha: Zvon, 292 s. ISBN: 80-7113-111-3.
- Cain, G., Carnellor, Y. (2008). 'Roots of Empathy': a research study on its impact on teachers in Western Australia. *Journal of Student Wellbeing*, October, Vol 2(1), 52-73.
- Coles, R. (1998) *The moral intelligence of children: How to raise a moral child*. New York: Penguin Books.
- Covington, M. V., Mueller, K., J. (2001). Intrinsic Versus Extrinsic Motivation: An Approach/Avoidance Reformulation. *Educational Psychology Review*, vol. 13, no.2, s. 157-176. ISSN 1040-726X.
- Cresswell, J. W. (2003). *Research design. Qualitative, quantitative, and mixed method approaches*. Thousand Oaks: Sage Publications.
- Grossman, P., & McDonald, M. (2008). Back to the future: directions for research in Teaching and teacher education. *American Educational Research Journal*, 45, 184-205.
- Gillernová, I., Krejčová, L. et al. (2012). *Sociální dovednosti ve škole*. Praha: GradaPublishing, 247 s. ISBN 978-80-247-3472-9.
- Hamre, B., & Pianta, R. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development*, 72, 625-638.
- Hendl, J. (2016). *Kvalitativní výzkum: základní teorie, metody a aplikace*. Čtvrté, přepracované a rozšířené vydání. Praha: Portál, 437 stran. ISBN 978-80-262-0982-9.
- Honzák, R. (1977). *Komunikační pasti v medicíně*. Praha: Galén, ISBN: 80-85824-60-4.
- Honzák, R. (1999). *Komunikační pasti v medicíně: praktický manuál komunikace lékaře s pacientem*. 2., dopl. vyd. Praha: Galén, 165 s. ISBN 80-7262-032-0.
- Janečková, H., Vacková, M. (2010). *Reminiscence: využití vzpomínek při práci se seniory*. Vyd. 1. Praha: Portál, 151 s. ISBN 978-80-7367-581-3.
- Kusák, P. (1991). *Sebevědomí žáka a školní úspěšnost*. In: Psychologové studentům. Praha, Stát. ped. nakl. s. 13-24.- AUPO, fac. paed. Psychologica III.
- Lee, J, S. (2012). The Effects of the Teacher-Student Relationship and Academic Press on Student Engagement and Academic Performance. In: *International Journal of Educational Research* 53 (2012) 330-340, <http://dx.doi.org/10.1016/j.ijer.2012.04.006>.
- Mareš, J. (2013). *Pedagogická psychologie*. Praha: Portál, 702 s., ISBN: 978-80-262-0174-8.
- Mareš, J. et al. (2002). *Latropatogenie a sororigenie, aneb, Jak lze poškodovat člověka*. 2. vyd. Praha: Vysoká škola J. A. Komenského, 59 s. ISBN 80-86723-00-3.
- Mareš, J., Křivohlavý, J. *Komunikace ve škole*. Brno: Masarykova univerzita, 1995, 210 s. ISBN: 80-210-1070-3.
- Meehan, B., Hughes, J., & Cavell, T. (2003). Teacher-student relationships as compensatory resources for aggressive children. *Child Development*, 74, 1145-1157.
- Plevová, I., Badošek, R., Kimplová, T. (2016). Je nutná výchova vysokoškolských studentů k etiketě? In: *Andragogika*, ročník XX, s. 19 – 24. Zlín: Academia Economica, ISSN: 1211-7388
- Rogers, C., R., Freiberg, H., J. (1969) *Freedom to learn*. Ohio: Charles E. Merrill Publishing Company, 358 pp.
- Rogers, C., R., Freiberg, H., J. (1998) *Šlobodaučit'sa*. Persona, Modra, 358 s. ISBN 80-967980-0-6.
- Rogers C. R. (2014). *Způsob bytí: klíčová témata humanistické psychologie z pohledu jejího zakladatele*. Vyd. 2., rev., V této řadě 1. Praha: Portál, 340 s. Klasici. ISBN 978-80-262-0597-5.
- Strauss, A., Corbin, J. (1999). *Základy kvalitativního výzkumu: postupy a techniky zakotvené teorie*. Boskovice: Albert, 196 s.
- Špatenková, N., Bolomská, B. (2011). *Reminiscenční terapie*. 1. vyd. Praha: Galén, 112s. ISBN 978-80-7262-711-0.
- Thorová, K. (2015). *Vývojová psychologie*. Praha: Portál. 575 s. ISBN: 978-80-262-0714-6.
- Vacek, P. (2017). *Pedagogická psychologie*. Hradec Králové: Gaudeamus, 190 s. ISBN 978-80-7435-684-1.
- Vágnerová, M (2005). *Školní poradenská psychologie pro pedagogy*. Praha: UK, Karolinum, 429 s. ISBN80-246-1074-4.



Vališová, Alena et al. *Pedagogika pro učitele*. Vyd. 1. Praha: Grada, 2007. 402 s. Pedagogika. ISBN 978-80-247-1734-0.



Enhancing Education for Smart Cities: Evidence from Omani Higher Education Institutions

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Abstract

The focus of this paper is to examine the interrelated influences of service delivery in institutions of higher education (HEIs) in Oman to advance sustainable education for smart cities. An important objective of this study is the evaluation of the pertinent educational curriculums and programs used by HEIs in Oman to stimulate and develop the sustainability of the smart city approach. Researchers intend to adopt aspects of the triple helix model, which have been used as an analytical framework to analyse the knowledge-based innovation systems in HEIs. Data is collected from stakeholders in HEIs through structured and semi-structured interviews, and questionnaires combined with statistical trends from officially published reports. Data analysis will keep with Lombardi et al., (2012) methodology and the employment of Stata software will help in the examination of correlation between variables. The study contributes to the debate on HEIs' role in smart city initiatives and has implications to their part in advancing higher education for the development of smart city initiatives in the region, which is an evolving concept that requiring ample investigation to further our understanding of it especially in developing countries.

Keywords: Sustainable education, smart city, institutions of higher education, technology, innovation

Introduction

Education has been revolutionized by technology and so higher education institutions (HEIs) must create a richer and inspiring experience in learning is crucial. HEIs need to know their position for them to benefit fully from current smart methods in education like social learning and networks as well as game-based learning. The current paper examines the educational setting in Omani HEIs as part of the smart city ecosystem. The study includes smart learning initiatives already in place and vital components of the curriculum that nurtures innovation among its alumnae, which is anticipated to have strategic consequences for the country, which is in the process of endorsing a smart learning education configuration. The smart city approach in Oman is still budding and there is a strong need to support this ecosystem. Some of the most important concepts relating to teaching are innovation, smart technology, and industrial innovation that power sustainability and these must be addressed for next students generation (Wolff, Kortuem, & Cavero, 2015).

Studies in the fields of smart cities have widely emphasized the positive impact of a smart city to “ tackle urban sustainability issue ” (Wolff et al., 2015; p.2), and the role of higher education institutions on stimulating and promoting innovation and smart cities. Meijer & Bolívar (2016) stated that “Smart technologies, smart collaboration, a highly educated population, and effective institutions are argued to be needed to face the challenges of modern cities” (p.393). Education has been widely discussed in the literature as one of the



significant elements for the development of the necessary human capital as well as technological infrastructures for a smart city (Caragliu, Del Bo, & Nijkamp, 2011; Hollands, 2008; Meijer & Bolívar, 2016). Promoting centres for a smart city at HEIs is important to develop the smart cities so that students can play their active and innovative roles in smart city initiatives (Winters, 2011). In that sense, the debate in the literature continues regarding either building the human capital first or the necessary technology (Nam & Pardo, 2011). The 2020 Europe strategy has focused on education, research and innovation areas as major factors in the promotion of smart cities (Cocchia, 2014).

Two clear gaps in the arena of smart city education inspire the present study. First, a few studies have been done in developing countries that explored education as the main player in stimulating smart city initiatives. This is in spite of the shared view that “a smart city is a humane city that has multiple opportunities to exploit its human potential and lead a creative life” (Nam & Pardo, 2011, p. 285). Though there are many instances from advanced economies, evidence of the influence of HEIs on supporting students to be more creative, innovative and able to create applications on smart city initiatives in developing economies continue to be rare (Fadaeenejad et al., 2014). Second, little answers are available in the literature that focuses on the part played by HEIs in developing countries and their sustainable education for smart cities (Liu, Huang, & Wosinski, 2017). Most studies focused on guesstimating the development of smart cities without observing the main factors that promote improved life in smart cities, which is mostly due to people (Winters, 2011).

The aim of this research is to review the relevant educational curriculums, activities, and programs used in Omani HEIs to encourage and advance the sustainability of the smart city ecosystem. Several studies suggest that people, education systems, learning, and knowledge or what they call “human dimensions” are the key aspects for smart cities approach (Cocchia, 2014). Furthermore, our study sheds light on the effectiveness of these HEIs education methods and strategies that are used to develop this concept, mostly among undergraduate students in Oman. A literature review indicated that such insights are still scarce especially with when it comes to developing countries.

Consequently, the present research aims mainly to contribute to the debate on smart city education at HEIs. This is because smart city education in developing regions is a budding notion and requires more research to advance our understanding of what it takes to build smart cities in the region. The study delivers thorough indications and analyses of the smart education situation in Omani universities and colleges, the effectiveness of curriculums, activities and programs used by HEIs in Oman to kindle and endorse the smart city approach through improved preparation of its graduates giving them the tools, settings and network to actively participate in the smart city movement. The study contains smart learning initiatives now in place that are anticipated to have strategic implications for the country. The second contribution of the research lies in the examination and confirmation of the triple helix model as an analytical framework for gauging the capabilities of HEIs in Oman. The end goal of this being to help decision makers strive for as well as cultivate the creativity and smart education necessary for building the human capital to promote the smart city approach.

To conclude this section, education has been revolutionized by technology and so HEIs must create a richer learning experience for its constituents. In turn, smart learning initiatives can have a vital role in nurturing innovation in and preparing alumnae for smart city initiatives. The smart city approach in Oman is still budding and there is a strong need to support this ecosystem. Some of the most important concepts with this regard are the fostering of innovation and smart technology that power sustainability and the current study hopes to address this gap by in the preparation of the next generation of students. (Wolff, Kortuem, & Caverro, 2015). With that respect, the role of HEIs in stimulating and promoting innovation and smart city initiatives is undeniable (Meijer & Bolívar, 2016). Moreover, a few studies have been done in developing countries that explored education as the main player in stimulating smart city initiatives. Little answers are available in the literature that focuses on the part played by HEIs in developing countries and their sustainable education for smart cities (Liu, Huang, &



Wosinski, 2017). Most studies focused on guesstimating the development of smart cities without observing the main factors that promote improved life in smart cities, which is mostly due to people (Winters, 2011). Finally, building on the grounds put forth in the above, this study aim at answering the following four main research questions:

1. What are the applicable curriculums and programs used by HEIs in Oman that can support and help in the development of a smart city in Oman?
2. Does the education system in Omani HEIs effectively support the development of smart city initiative?
3. What are the recommended methods to promote the interest of smart city approach among students?
4. Do Omani HEIs have the capabilities to strive and nurture a creative environment for smart city initiatives?

Furthermore, from the mentioned analysis the following study objectives emerged:

- I. Explore the impact of service delivery in Omani HEIs to develop sustainable education for smart cities.
- II. Adopt aspects of the triple helix model (Etzkowitz, 2008) that can be employed to analyze the knowledge-based innovation systems in HEIs.

Method

The smart city concept is made up of 'smart people' features and the level of educational services afforded that is fundamental to 'urban growth' and sustainable development (Winters, 2011). The present research project explores the relationship between the ability of Omani HEIs to implement smart education systems to develop human capital to its citizens and prepare them in the best way for smart city initiatives (Bătăgan & Boja, 2012).

In the current study, researchers implement aspects of the triple helix framework to analyse the knowledge-based innovation systems (Lombardi, Giordano, Farouh, & Yousef, 2012). In a recent paper, Etzkowitz (2008) stressed that the move towards a knowledge-based society has given universities a bigger role to play. In fact, the role of universities as originators of knowledge has become more valuable since innovation is increasingly based on science. Consequently, university, industry, and government have very equal responsibilities that it's not just one specific component that is necessarily the impetus of the triple helix model of innovation. For this reason, the increased potential role played by universities for smart city initiatives is being suggested particularly with regard to how technology transfer offices were set up by universities to promote the transformation of university research from commercial value to actual commercial goods.

To conclude this section, the methodology followed by researchers in the present work includes conducting structure and semi-structured interviews and discussions with relevant focus groups comprising of various stakeholders from the Omani HEIs including individuals in management, professional and decision making positions (public and private). Further, questionnaires are distributed to selected samples of the population such as students, academic and professional staff in HEIs in Oman (public and private). All this will be backed up by statistical trends and observations by policy makers and officially published reports.

Findings

The current study has HEIs performance in delivering smart sustainable education as the dependent variable estimated using five main categories that are based on the triple helix model. The research framework shows the proposed antecedents to HEIs performance with regard to smart city initiatives (Figure 1). These five categories are:

- 1) Smart Governance (related to participation)
- 2) Smart Economy (related to competitiveness)
- 3) Smart Human Capital Indicators (related to people)
- 4) Smart Living (related to the quality of life)
- 5) Smart Environment (related to natural resources)

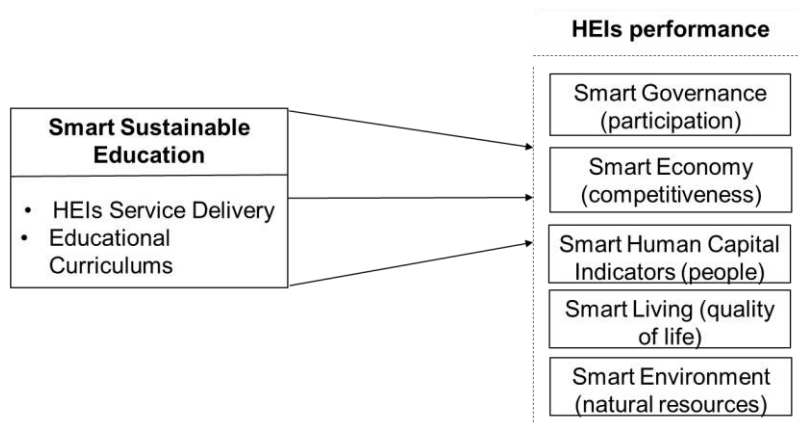


Figure 1. Research Framework

For the purpose of this study, an empirical examination requires the operationalization of the following variables and connecting them to the five main categories above in the triple helix model factors that are assessed in Omani HEIs (Caragliu et al., 2011; Hall et al., 2000; Lee & Hancock, 2012; Neirotti, De Marco, Cagliano, Mangano, & Scorrano, 2014):

1. Campus investment in infrastructures and building intelligence sustainability like building smart applications, network, smart access, data usage, using digital education (e.g. interactive whiteboards, e-learning systems), and smart green services, etc.
2. Investing in human capital by attracting talents and academics as well as collaborative partnerships
3. Students' awareness of smart city concepts in terms of curriculums, workshops, creative classes, and participating in local and international competitions.
4. Smart city governance by using prototypes to oversee smart city traditions.

Finally, data analysis will keep with the methodology employed by Lombardi et al., (2012) and software such as Stata to investigate the correlation between variables. For the time being, data will be collected from several sources including:

1. Conducting structure interview with top management, professional and decision makers at some selected HEIs in Oman (public and private). In addition to structured and semi-structured interviews, researchers need to use focus groups to gather important ideas and viewpoints from relevant stakeholders in HEIs, government, and industry on how to improve educational programs for smart city initiatives.
2. Distribution of a questionnaire from selected focus groups such as students, academic and other professionals in some selected HEIs in Oman (public and private).
3. Observing statistical trends from officially published reports

Conclusion

The primary contribution of the current paper with broad implications is a more profound understanding of the best practices that are implemented in HEI and what particular role they play in the development of smart city initiatives. This work attempts to examine the influences of service delivery in HEIs on the development of sustainable education for smart cities in Oman. The study reviews the relevant educational curriculums, activities, and programs used by HEIs that are needed to stimulate and develop the sustainability of smart city initiatives. Researchers adopt aspects of the triple helix model, which have been used as an analytical framework to analyse the knowledge-based innovation mechanisms in HEIs. Data collected from various stakeholders in HEIs through structured interviews, and questionnaires and statistical trends collected from official published reports can reveal considerable information about the HEI effectiveness in that regard. The study contributes to



the debate of HEIs' role in smart city initiatives and has implications to their role in education for smart city initiatives developing in the region, which is an emerging concept that demands more research to improve our understanding particularly in developing countries.

In conclusion, to narrow down the scope of the current paper, researchers must make their way backward from the long-term government and universities plans to the present state to figure out the missing links that need addressing. Further research is required to find practical ways to evaluate educational curriculums and programs used by HEIs. Moreover, in-depth expertise of specific aspects of the triple helix model must be uncovered before using it as an analytical framework to analyse the knowledge-based innovation systems in HEIs. Finally, combining Lombardi et al, (2012) methods in collecting and analysing data with focus group interviews will need further exploration for practical implementation in the current study.

References

- Bătăgan, L., & Boja, C. (2012). Smart solutions for educational systems-case study. *Procedia-Social and Behavioral Sciences*, 46, 4834-4838.
- Caragliu, A., Del Bo, C., & Nijkamp, P. (2011). Smart cities in Europe. *Journal of Urban Technology*, 18(2), 65–82.
- Cocchia, A. (2014). Smart and digital city: A systematic literature review. In *Smart city* (pp. 13–43). Springer.
- Etzkowitz, H. (2008). *The triple helix: university-industry-government innovation in action*. Routledge.
- Fadaeenejad, M., Saberian, A. M., Fadaee, M., Radzi, M. A. M., Hizam, H., & AbKadir, M. Z. A. (2014). The present and future of smart power grid in developing countries. *Renewable and Sustainable Energy Reviews*, 29, 828–834.
- Hall, R. E., Bowerman, B., Braverman, J., Taylor, J., Todosow, H., & Von Wimmersperg, U. (2000). *The vision of a smart city*. Brookhaven National Lab., Upton, NY (US).
- Hollands, R. G. (2008). Will the real smart city please stand up? Intelligent, progressive or entrepreneurial? *City*, 12(3), 303–320.
- Lee, J.-H., & Hancock, M. G. (2012). Toward a framework for smart cities: A comparison of Seoul, Sa Francisco and Amsterdam. Research Paper, Yonsei University and Stanford University.
- Liu, D., Huang, R., & Wosinski, M. (2017). Development of smart cities: Educational perspective. In *Smart learning in smart cities* (pp. 3–14). Springer.
- Lombardi, P., Giordano, S., Farouh, H., & Yousef, W. (2012). Modelling the smart city performance. *Innovation: The European Journal of Social Science Research*, 25(2), 137–149.
- Meijer, A., & Bolívar, M. P. R. (2016). Governing the smart city: a review of the literature on smart urban governance. *International Review of Administrative Sciences*, 82(2), 392–408.
- Nam, T., & Pardo, T. A. (2011). Conceptualizing smart city with dimensions of technology, people, and institutions. In *Proceedings of the 12th annual international digital government research conference: digital government innovation in challenging times* (pp. 282–291). ACM.
- Neirotti, P., De Marco, A., Cagliano, A. C., Mangano, G., & Scorrano, F. (2014). Current trends in Smart City initiatives: Some stylised facts. *Cities*, 38, 25–36.
- Winters, J. V. (2011). Why are smart cities growing? Who moves and who stays. *Journal of Regional Science*, 51(2), 253–270.
- Wolff, A., Kortuem, G., & Cavero, J. (2015). Towards smart city education. In *Sustainable Internet and ICT for Sustainability (SustainIT)*, 2015 (pp. 1–3). IEEE.



Teachers' Views on the Reality Shock

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Abstract

This research was carried out in order to reveal the stages of the reality shock experienced by teachers who started to work in different branches and what effects they created. The research was conducted in phenomenological research design, one of the qualitative research methods. The participants consisted of sixteen different branch teachers who were selected with the criterion sampling technique, which is one of the purposive sampling techniques. In the study, the phenomenological research design was used and attention was paid to ensure that the participants were teachers with 0 to 2 years of experience. Data were obtained by semi-structured interview form and analyzed by content analysis technique. The reality shock of the teachers was discussed in five stages: expectation, frustration/shock, survival, recovery and reflection. The data obtained from the research show that the reasons for the reality shock experienced by the teachers include lack of support from colleagues and administration, coping with student problems, and cooperation with other teachers. It is stated that the reality shock causes situations such as loss of motivation, isolation and losing enthusiasm for work.

Keywords: Teacher, Reality Shock, Disappointment

1. Introduction

1.1. Reality Shock

The concept of reality shock was first defined by Marlene Kramer in the 1970s as a result of her researches following the transition from student to professional nursing by newly graduated nurses (Çalışkan, 2010). It is seen that the expectations of the newly graduated nurses in their first work experiences, patient care practices and job descriptions differ with those taught in university education. Kramer called reality shock a conflict of values and expectations experienced by newly graduated nurses when they started to work. Reality shock is a universal phenomenon and reaction that emerges when people begin to see that the ideals and values learned in school are not used in professional life when they start working after many years of difficult preparatory (Scott, 1992). The reality shock, also called as the role transition, causes many of the new nurses to change jobs or leave the profession early in their career (Duchscher, 2009).

Veenman stated that the transition from pre-service training to the first teaching experience can be dramatic and traumatic, and he first dealt with the concept of reality shock defined in the nursing field from the perspective of individuals who have experienced the first teaching experience. Known as “transition shock” and “application shock” in English and German literature (Veenman, 1984), reality shock is defined as the frustration arising from the mismatch of real-life events with the information received by newly graduated teachers who have been introduced to the professional life for the first time. According to Veenman (1984), this phenomenon called reality shock does not last for a short time as a swimmer gets used to cold water and constantly affects individuals in the first teaching experience.

An individual who starts to work for the first time in an institution learns the expectations, values and rules of the institution in the process. In this process, which is also defined as organizational socialization by Dean, Ferris and Konstans (1985), individuals are involved with their own values and expectations as well as the



requirements of the institution and work. As a result of the fact that the expectations of newly recruited individuals are different from the experiences in the organization, the "reality shock" emerges (Dean, Ferris and Konstans, 1985).

1.2. The Stages of Reality Shock

1.2.1. The Stages of Reality Shock According to Kramer

According to Kramer, reality shock has several stages, including honeymoon, shock, healing and dissolution (Carroll, 2007).

1.2.1.1. Honeymoon Stage

The honeymoon stage occurs only when the best aspects of the job are seen immediately after the person starts work (Carroll, 2007). During the honeymoon stage, the person starts working with feelings of admiration. He sees working life charming and through rose-colored glasses (Scott, 1992). According to newly graduated nurses, during the honeymoon stage, the good things they experience outweigh the negative experiences (Carroll, 2007). Other experienced nurses in the workplace welcome them for a while, ignoring their mistakes. However, after a while, prizes and appreciation disappear and the honeymoon stage ends (Scott, 1992).

1.2.1.2. Shock Stage

The shock stage arises when the expectation differences between being a student and being a nurse in professional life are fully seen. These differences in expectations and contradictions reveal reality shock (Carroll, 2007). The situation in the honeymoon stage is expected to end as soon as possible and the newly graduated nurse is expected to behave like other nurses. Reactions to reality shock at this stage vary from person to person. Rejection and regression behaviors are generally observed. At this stage, one feels insufficient, blames himself, sees his education as inadequate, often experiences feelings of anger and hostility. Fatigue, illness and depression can be observed as a common symptom of all these feelings (Scott, 1992).

1.2.1.3. Recovery Stage

The recovery stage involves the new graduate gaining a balanced and changed view of the professional world. The new graduate maintains a commitment to learning but acknowledges that he will focus primarily on the current task required by the professional environment (Carroll, 2007). Self-discovery, recognizing the entertaining aspects of the work, continuing to be informed are indicators of the recovery stage. In this stage, the tension of the person decreases (Scott, 1992).

1.2.1.4. Dissolution Stage

The resolution of these conflicts experienced by the newly graduated nurse occurs when she internalizes the values of the professional life and the expectations of the institution in which she works and creates new expectations. When the newly graduated nurses realize that they are able to manage their responsibilities about their patients and complete their shift duties, the dissolution stage is noticed. They start to hear good things from their managers, colleagues, and most importantly from the patients they look after and responsible for. As newly graduated nurses acquire a sense of purpose and success, dissolution occurs (Carroll, 2007).

1.2.2. Reality Shock Stages According to Moir

In his research, Moir (1999) states that the initial teaching experience is challenging and that each teacher goes through various stages. In this research, he mentioned the stages in which the newly recruited teachers go through and that it is important to understand these stages in order to support the newly recruited teachers.

1.2.2.1. Expectation Stage



The expectation stage is a stage in which the teacher is excited, anxious, and mostly takes place in the first weeks of school. The newly recruited teachers have idealistic ideas about how to achieve their goals (Moir, 1999).

1.2.2.2. Disappointment Stage

Newly-appointed teachers are disappointed after six to eight weeks of unremitting work and stress. The density and length of this stage vary from teacher to teacher. The teacher, starting to realize that things are not going as he wants and with disappointment, confusion and stress, starts to doubt himself and question his own competences. Difficulties in classroom management are a major problem in the disappointment stage. The self-esteem of the new teacher decreases and questions his / her professional competences. For the newly recruited teacher, this stage is very challenging and the reality shock is very intense (Moir, 1999).

1.2.2.3. Survival Stage

The first months of school are very challenging for new teachers. At a very fast pace, they are intensely exposed to unexpected problems. Although they have received teacher training, they are confronted with the fact that pre-service training is different from reality in the classroom environment. Responsibilities such as curriculum, daily lesson planning, and managing students are an overwhelming burden for the teacher. At this stage, the newly-recruited teacher tries to cope with the reality shock and to survive (Moir, 1999).

1.2.2.4. Recovery Stage

The recovery stage usually begins with the arrival of semester holiday and continues until the spring. In this stage, the new teacher continues his normal lifestyle with activities such as resting, exercising, sparing time for himself and spending time with family and friends. After this good break, the teacher gains a wider perspective with renewed hopes. This holiday offers the opportunity to organize new teachers' materials and to plan their curricula. At this stage, new teachers focus on the curriculum with long-term planning and development of teaching strategies. Thanks to their experiences in the first half of the year, teachers gain the ability to prevent, reduce or manage many problems that may occur (Moir, 1999).

1.2.2.5. Reflection Stage

In the reflection stage that starts towards the end of the school year, the teacher who is new in his profession evaluates his success and failures considering his school year. In the following year, the new teacher intends to plan on management, curriculum and teaching strategies. Then the new teacher enters a new stage of expectation about how the next years will pass (Moir, 1999).

This study was conducted to reveal the views of the teachers who were in the first 2 years of their work on the stages of reality shock and the effects of reality shock. The research question and sub-research questions created for this purpose are as follows:

What are teachers' views on reality shock processes?

On what subjects do teachers experience reality shock?

How does the process go after the shock?

What are the causes of reality shock?

How do teachers deal with reality shock?

2. Method

2.1. Research Design

The research was conducted in the phenomenological research design which is one of the qualitative research methods. Phenomenology studies focus on cases in which individuals are aware of, but do not have an in-depth and detailed understanding (Cropley, 2002; cited in Büyüköztürk, 2012). In the phenomenology studies, the sources from which the data are obtained consist of individuals or groups living the case (Büyüköztürk, 2012).



2.2. Study Group

The participants consist of sixteen different branch teachers who were selected with the criterion sampling technique, which is one of the purposive sampling techniques. It has been paid attention that the teachers who will participate in the study are in the first 2 years of their commencement. In the criterion sampling technique, situations that meet a predetermined set of criteria are studied (Yıldırım and Şimşek, 2008). The study group characteristics are given in Table 1.

When the study group was examined, there were a total of 16 teachers, four of whom were each from pre-school, primary, secondary and high school. 8 of the teachers are women and 8 are men. 9 of them work in public schools and 7 work in private schools.

Table 1. Study Group Characteristics

Code	Branch	Age	Experience	Gender	Level	Type of School
Tchr 1	Primary School	24	1.5 years	Male	Primary	Public
Tchr 2	Counselor	24	2 years	Male	High School	Private
Tchr 3	Preschool	24	1 year	Female	Preschool	Private
Tchr 4	Preschool	24	2 years	Female	Preschool	Private
Tchr 5	Physical Edu.	21	9 months	Male	Primary	Public
Tchr 6	Primary School	24	2 years	Female	Primary	Private
Tchr 7	Counselor	24	2 years	Female	Secondary	Public
Tchr 8	Preschool	25	1 year	Male	Preschool	Public
Tchr 9	Counselor	26	2 years	Female	Secondary	Public
Tchr 10	Primary School	25	2 years	Female	Primary	Public
Tchr 11	Preschool	26	1 year	Male	Preschool	Public
Tchr 12	Counselor	25	2 years	Male	Secondary	Public
Tchr 13	Science	27	2 years	Male	Secondary	Public
Tchr 14	Geography	26	1 year	Female	High School	Private
Tchr 15	Vocational	24	2 years	Female	High School	Private
Tchr 16	English	27	1 year	Male	High School	Private

When the distribution of teachers by branches is examined, it can be seen that there are 4 counselor teachers, 4 preschool teachers, 3 primary school teachers, 1 physical education teacher, 1 science teacher, 1 geography teacher, 1 vocational teacher and 1 English teacher.

2.3. Data Collection Tools

Data were collected through face-to-face and telephone interviews. Semi-structured interview form was used to collect data during the interviews. The first part of the semi-structured interview form contains general information about the interviewees. In the continuation of the interview form, there are interview questions about the stages of reality shock in the workplace. Interview (Büyüköztürk, 2012) is the process of collecting data from related people in line with the questions sought in the research. The interview provides in-depth information about a designated research topic or a question.

Table 2. Data Collection Tool 1 - Interview Questions

Expectation	Disappointment	Survival	Recovery	Reflection
What were your expectations when you were appointed to school (from the	Which of these expectations disappointed you? What are the issues you are disappointed	What did you do when you were disappointed? What	Did your strategies work? If so, what results did you observe?	Now, when you look back, how do you evaluate yourself from the day you first come to school to this day?



institution, administration and colleagues)?	with at school? What kind of reactions did you show when you were disappointed? What kind of situations did you experience when your expectations were not met? What kind of influences did you have (emotion, thought, behavior, knowledge)?	strategies have you implemented to get out of this situation? Who did you ask for support? Who did you consult?	What effects did you observe in your life? If these strategies didn't work, what did you do?	What caused these situations? What should have been done to avoid these? What do you suggest to prospective teachers to prevent them from happening? What do you recommend to the teacher training institutions?

2.4. Data Collection and Analysis

While collecting the research data, firstly the participants were informed about the purpose of the research. The permission was obtained by stating that the interviews would be recorded by the researcher by recording audio or by writing on paper. In addition, the participants were asked to give pseudonyms to indicate their gender and it was stated that the pseudonyms would be included in the research without using their own names. The interviews lasted approximately 30 minutes and the contents of the interviews were transcribed.

3. Results

The findings obtained from the research are shown in the tables below. When the teachers who participated in the research were asked “What do you think is the reality shock?”, some of the answers received are as follows:

“There is a world that we dream of in college, and when there is a difference between the world I enter into and what I imagine, I call it a reality shock.” (Tchr 2).

“It is getting surprised about what you have become when you start working, not like in the school, the situation when you understand this.” (Tchr 6).

“The sudden reality like hearing news of a relative’s death comes to my mind.” (Tchr. 8).

“What you dream is different from what you actually meet. Like the difference between theory and practice.” (Tchr. 7).

When Table 3 is examined, it is seen that the teachers who participated in the research had various expectations from their school, their colleagues and their students in their first years. In addition, teachers start with personal expectations such as self-improvement and appreciation of their branches, and professional expectations such as transferring the theoretical knowledge they have learned at the university to practice. The expectations of the teachers about their colleagues and administrations are more about support and cooperation, and their expectations of students are about caring for the lesson and being academically successful. Below are some of the answers that teachers have given about what they have come to expect from the school where they work.

“I expect my institution to stand behind me in every sense. In any case, I want him to have a supportive stance towards the student, saying that our teacher knows something about what he does.” (Tchr 14)

“I would expect the administrators to be fair and supportive.” (Tchr 3)

“I would like other teachers to collaborate for the need for toys, activities and be enterprising.” (Tchr 8)

“Collaboration, sharing the environment, that's what you expect from the senior.” (Tchr 13)

“I expected more from the student. It may be from my own studentship, but I found a profile below my expectations while I expected them to have more responsibility, more enthusiasm and more knowledge.” (Tchr 15)



“The difference between the student profile where I did my internship and the student profile here was a reality shock for me. The students there were quiet, calm, eager to listen, willing and with an academic background. The group here is a little different, I've had a hard time getting used to it, and I'm still having difficulty.” (Tchr 16)

“I had come to expect that the architectural structure and design of the school was more smooth and aesthetic.” (Tchr 3)

“Because of my branch, I would have expected a large enough space and hall.” (Tchr 5)

“At least I was expecting kindergarten like the places where we did internships, toys etc. ...There are 110 students and 1 toilet. I expected physical conditions to be good.” (Tchr 11)

“I expected something close to the psychological counseling we were trained in.” (Tchr 7)

“We learned to do psychological counseling at school, but I did it with maybe 10 students a year, obviously, it did not meet my expectations. This reduced my level of professional satisfaction. I have to push things to do something. I cannot put the theory we learned at university into practice in public school.” (Tchr 9).

“I was expecting my qualifications to increase, to improve myself.” (Tchr 11)

“I came to help them and improve myself because the resources were low.” (Tchr 8)

Table 3. Expectations

Theme	Sub-Theme	Codes
Expectation	Expectations for Management	Close relationship and communication with managers (Tchr 1, Tchr 5, Tchr 11) Supportive management (Tchr 3, Tchr 8, Tchr 12, Tchr 14, Tchr 15) Fair management (Tchr 3) Understanding management (Tchr 6, Tchr 10) Salary (Tchr 1, Tchr 2) Working hours (Tchr 2) Related administration (Tchr 5) Tolerant management (Tchr 16)
	Expectations for Teacher	Teamwork (Tchr 2) Effective communication between teachers (Tchr 3, Tchr 4) Good communication with colleagues (Tchr 6) Collaboration between colleagues (Tchr 4, Tchr 8, Tchr 11, Tchr 12, Tchr 13) Cooperation between colleagues (Tchr 4, Tchr 15) Transfer of experience between teachers (Tchr 5) Guiding colleagues (Tchr 5, Tchr 14, Tchr 15) Tolerant teacher approach (Tchr 16)
	Expectations for Students	Student without problems (Tchr 6) Respectful student (Tchr 5) Willing student (Tchr 5, Tchr 15) Student with a good academic background (Tchr 15, Tchr 16)
	Expectations for Profession / Branch	Working in accordance with the job description (Tchr 2, Tchr 7, Tchr 9) Valuing the branch (Tchr 2, Tchr 7, Tchr 9) Caring for student interviews (Tchr 2) Transferring theoretical knowledge to practice (Tchr 7, Tchr 9, Tchr 11)



	Positive attitude towards the branch (Tchr 9, Tchr 12)
Expectations for School and Environment	An aesthetic school with good physical facilities (Tchr 3, Tchr 5 Tchr 11) School without problems (Tchr 6) Systematic school (Tchr 4) Terror zone (Tchr 10) Having basic tools and equipment of the branch (Tchr 3, Tchr 5 Tchr 11) A good place to be appointed with the point from public personnel selection examination (Tchr 11)
Personal Expectations	Self-development (Tchr 8, Tchr 11) Improving professional competencies (Tchr 11) Touching students' lives (Tchr 12, Tchr 13) Being able to help students (Tchr 8)

Teachers begin to work with various expectations from colleagues, administration and students. Table 4 shows that some of these expectations disappoint teachers. Issues such as threatening and distant attitude of the administration instead of a supportive, warm attitude, lack of collaboration of colleagues, low interest and success of students, lack of opportunities, tools, lack of appreciation of the profession and the mismatch between what is learned in theory and real-life practices constitute the disappointments experienced by teachers. Some of the expressions in which teachers express their frustrations are given below.

“The deputy directors are constantly threatening and questioning such as investigations and expulsions, and therefore the decline in efficiency. They let me down.” (Tchr 1)

“The administration cannot empathize; they scare by threatening to open an investigation because they are from here.” (Tchr 10)

“Unity in terms of work with colleagues is limited, communication is inefficient.” (Tchr 11)

“The lack of cooperation between teachers and administration was disappointing. It is not fully effective in the development of students because there is no consensus among teachers as school culture.” (Tchr 13)

“The students say that they haven't been able to enter anywhere and stayed here among themselves. The student profile was disappointing.” (Tchr 16)

“The issues that came to me were not the same with the training we received in theory.” (Tchr 7)

Table 4. Disappointing Topics

Theme	Sub Theme	Codes
	Disappointment Related to Management	The threatening attitude of the administration (Tchr 1, Tchr 10) Non-warm, distant attitude of the administration (Tchr 1) Communication with the administration (Tchr 4, Tchr 5, Tchr 11) Lack of support from the administration (Tchr 4) Non-compliance, inconsistency with management (Tchr 4) Lack of understanding of the administration (Tchr 6, Tchr 10) The administration's neglected attitude (Tchr 8) Inelasticity of administration (Tchr 10) Pressure of the administration (Tchr 10) Negative management attitude (Tchr 12) Cooperation with the administration (Tchr 13)
	Disappointment Related to Colleagues	The lack of equipment and inadequacy of colleagues (Tchr 3) Teachers' neglected attitude (Tchr 8)



Disappointing Topics		Teachers' lack of cooperation (Tchr 9, Tchr 11, Tchr 13)
		Negative teacher attitude (Tchr 12)
		Non-support for student problems (Tchr 14)
		Grouping among teachers (Tchr 15)
	Disappointment Related to Students	Students' being indifferent to the course (Tchr 5)
		Low awareness of students (Tchr 7)
		Student problems on meaningless issues (Tchr 7)
		Failure of the student profile (Tchr 16)
		Negative student attitudes (Tchr 16)
		The student's not seeing the teacher as an authority (Tchr 16)
	Disappointment Related to Working Conditions	Salary (Tchr 2, Tchr 6)
		Working hours (Tchr 2)
		Responsibilities not conforming to the job description (Tchr 2)
	Disappointment Related to University Education	Difference between theory and practice (Tchr 7, Tchr 9)
	Disappointment Related to School Structure and Equipment	Architectural, aesthetic structure of the school (Tchr 3)
		Lack of tools and equipment (Tchr 3, Tchr 5, Tchr 11)
		Lack of a teacher's area (Tchr 3)
		Crowded classes (Tchr 6, Tchr 7, Tchr 9)
	Disappointment Related to Parents	Low level of awareness of parents (Tchr 7)
		Inability to reach parents (Tchr 9)
		Parents' not seeing the teacher as the authority (Tchr 16)
	Disappointment Related to Social Environment and Culture	Environment (Tchr 12)
		Cultural features (Tchr 12)
		Poor physical conditions (Tchr 11)
	Disappointment Related to Job	Dealing with students (Tchr 3)
		Failure to do the job (Tchr 7)
		Failure to value the profession, branch (Tchr 9, Tchr 13)
		The applications for the branch being different than expected (Tchr 9)
		Inadequate to students (Tchr 15)
		Inability to reach students (Tchr 15)
		Not showing respect for teaching (Tchr 16)

“Salary, working hours, the obligation to attend classes, entering the classes during counseling hours, neglected the size of counseling disappointed.” (Tchr 2)

“The architectural structure did not satisfy me in terms of aesthetics. The equipment was insufficient.” (Tchr 3)

“At least I was expecting kindergarten like the places where we did internships, toys etc. ...There are 110 students and 1 toilet. I expected physical conditions to be good. Not half of my expectations, none met.” (Tchr 11).

“The environment and the cultural features disappointed me. They don't send 15-year-old girls to school, and the student doesn't come. She's thinking about dropping out at 8.” (Tchr 12)

“There is an intense prejudice against the counseling service in the workplace, it is very sad to encounter them. I was even crying when I met them. For example, they say, what do you do? These prejudices have disappointed me.” (Tchr 9)

Teachers who are at the beginning of their professions show emotional, behavioral and intellectual reactions to their disappointments. When Table 5 was examined, it is seen that teachers felt various emotions such as unhappiness, sadness, reluctance, anger, professional dissatisfaction in the face of frustration; they engaged in



behaviors such as ignoring, accustoming, communicating with the related people for the solution of the problem, adapting and questioning themselves and their competences. Below are some of the teachers' responses to their disappointments.

Table 5. Reactions to Disappointment

Theme	Sub Theme	Codes
Reactions to Disappointment	Emotional Reactions	Sadness (Tchr 2, Tchr 8, Tchr 9, Tchr 12, Tchr 14, Tchr 15) Getting angry (Tchr 2, Tchr 5, Tchr 8, Tchr 9) Feeling like someone who doesn't know how to swim, is in the water and nobody helps (Tchr 3) Anxiety (Tchr 3) Reluctance to go to school, work (Tchr 3, Tchr 16) Unhappiness (Tchr 3, Tchr 9) Perplexity (Tchr 4, Tchr 13) Low motivation (Tchr 4, Tchr 12, Tchr 14) Feeling of inadequacy (Tchr 7, Tchr 9, Tchr 14) Inability to obtain professional satisfaction (Tchr 7, Tchr 9, Tchr 11) Disappointment (Tchr 8, Tchr 9) Feeling helpless (Tchr 10) Feeling regressed professionally (Tchr 11) Being shocked (Tchr 14) Uneasiness (Tchr 15) Emotion-state confusion (Tchr 15)
	Behavioral Reactions	Adapting to the environment (Tchr 1, Tchr 16) Creating own style (Tchr 1) Talking with the administration (Tchr 2, Tchr 4) Getting used to (Tchr 4, Tchr 8) Searching for a new job (Tchr 6) Closure (Tchr 9) Crying (Tchr 9) Complaining to the top authorities (Tchr 10) Sharing with friends (Tchr 10) Self-abstraction (Tchr 12, Tchr 14) Ignoring (Tchr 12) Decreased performance (Tchr 15) Self-development (Tchr 13) Not to give up (Tchr 13)
	Intellectual Reactions	Self-questioning (Tchr 6, Tchr 8, Tchr 11, Tchr 16) Minding (Tchr 16) The end of idealist ideas (Tchr 11)

“I didn't know how to handle them. I felt like someone who didn't know how to swim but was stuck in the water and no one helped.” (Tchr 3).

“It created the idea of inadequacy in me. I wondered if I am like this or everyone is the same. These situations I have experienced created sadness, unhappiness, withdrawal and anger especially last year.” (Tchr 9)

“.... The teacher interpreted it as if I were a new one and there was a lack of teaching in me. This was reflected to me as follows, if there is a problem with the student do not ask anyone, I closed myself.” (Tchr 14)

“These situations create professional dissatisfaction and I want to be good at my job. You're going into the interrogation process, like you've learned so much, and you can't apply.” (Tchr 11)



Table 6. Solution Strategies

Theme	Sub Theme	Codes
Solution Strategies	Meeting with the Administration and Authorized Authorities	Talking with the administration (Tchr 2, Tchr 3, Tchr 5, Tchr 12) Meeting with top officials (Tchr 10)
	Sharing With Family And Friends	Meeting with close friends and family (Tchr 1, Tchr 14)
	Getting Colleague Support	Communicating with colleagues (Tchr 5, Tchr 12, Tchr 15) Finding solutions with colleagues (Tchr 10) Having chat with colleagues (Tchr 10) Mediation (Tchr 10)
	Looking for a New Job	Appointment to the state (Tchr 2, Tchr 6) Looking for a new job (Tchr 6)
	Acceptance, Adaptation	Adapting (Tchr 1) Implementing expectations (Tchr 7, Tchr 15) Organizing the work according to the conditions of the school (Tchr 7) Accepting the terms (Tchr 11)
	Withdrawing	Withdrawal (Tchr 4, Tchr 12) Ignoring (Tchr 4) Giving up (Tchr 12) Cutting off communication (Tchr 12)
	Focusing on Professional Activities	Receiving professional training to improve oneself (Tchr 9, Tchr 14) Doing different activities for the benefit of students (Tchr 12, Tchr 13) Developing projects (Tchr 13) Using different teaching techniques (Tchr 16) Adding students to class (Tchr 16)
	Personal Efforts	Creating alternatives (Tchr 3) Doing something with the existing facilities (Tchr 8) Trying to change the perspective of problems (Tchr 9, Tchr 15, Tchr 16) Breathing exercise (Tchr 9) Taking own time (Tchr 9) Having occupations good for your own (Tchr 9) Not bringing home work (Tchr 9) Doing your best (Tchr 9, Tchr 11, Tchr 15) Trying to see the positive aspects (Tchr 11) Motivating yourself (Tchr 14)

When Table 6 is examined, it is seen how teachers try to cope with the reality shock they experience as a result of not meeting some or many of these expectations in their work which they started with various expectations. It is seen that teachers try various strategies such as meeting with the administration and colleagues about the problem, asking for support, sharing with family and close friends, and accepting the existing situation in order to cope with the feelings of disappointment, unhappiness and incompetence caused by reality shock. While some of the teachers try to cope with the effects of this situation with their personal efforts such as concentrating on professional studies, allocating time for themselves, motivating oneself, participating in trainings to develop oneself, some of the teachers show behaviors like changing jobs, becoming introverted and giving up against the negative emotions caused by reality shock. Below are some of the answers that teachers have given to what strategies they apply to their disappointments.



“I tried to talk to the administrators and teachers for support and solution. But I couldn't find support. There was no solution for financial reasons.” (Tchr 3)

“I'm looking for a new school, waiting. Or should I be appointed to the state?” (Tchr 6)

“I tried to lower my expectation. If I continue with the same expectations, I hit the same shield and fall back. I realized that I was happier when there was less expectation. When you have very high expectations and are not met, you fall to the bottom.” (Tchr 15)

“Supervision trainings take place first. I joined them several times and received training from outside.” (Tchr 9)

“We have overcome it by trying to see the positive side of it, accepting the conditions, trying to do our best.” (Tchr 11)

Table 7 shows from whom the teachers get support to cope with the effects of reality shock. It is seen that teachers share this situation with their colleagues they feel close to, family and friends, they ask for support from them, and besides this, some teachers also get support from other institutions and organizations such as non-governmental organizations and counseling and research center.

“I met with my friends and non-governmental organizations; we tried to do something with them. We checked what can be done, we did something to improve but it may not have been enough.” (Tchr 8)

“I consulted my colleagues, I consulted my group. I consulted my experienced colleagues, that knowledge is something else. I took advantage of the school counseling service. Talking to people who had more experience or ideas led me.” (Tchr 15)

Table 7. Support Resources

Theme	Sub Theme	Codes
Support Resources	Immediate Environment	Family (Tchr 1, Tchr 14)
	Support	Friend (Tchr 1, Tchr 7, Tchr 8, Tchr 13, Tchr 14)
	Colleague Support	Teacher (Tchr 1, Tchr 2, Tchr 3, Tchr 4, Tchr 5, Tchr 6, Tchr 9, Tchr 10, Tchr 11, Tchr 12, Tchr 15, Tchr 16)
		Administrator (Tchr 3, Tchr 16)
	Other	Counseling and research center (Tchr 7) Non-Governmental Organizations (Tchr 8) Project partners (Tchr 13)

Table 8 shows what kind of solution strategies teachers use to cope with the effects of reality shock. Teachers use a number of solutions, such as personal efforts, getting support from someone, meeting related people, adapting, withdrawing. Table 8 shows the results of these strategies. When Table 8 is examined, it is seen that as a result of these solutions, the teachers adapt, trust themselves, feel more adequate, teaching-learning experiences become more enjoyable and negative feelings like disappointment, dissatisfaction, reluctance, unhappiness are replaced by positive feelings like success, competence, happiness and pleasure. However, there are situations where the strategies developed for the solution do not work and as a result, negative feelings, behaviors and attitudes such as wanting to quit the job, giving up and not making efforts are continuing.

“Talking with my friends and motivating myself rebuilt my self-confident more. Being able to do it, being enough continues to improve my self-confidence. I'm happy when I'm good at work, but when I feel inadequate, it's reflected in my private life, and I'm unhappy.” (Tchr 14)

“I can say that all of this has improved me professionally, and after the acceptance process, I learned new things, such as the things you are asked to do and what you should not do. My coping skills have also increased.” (Tchr 2)



“Some worked, some did not. When it does, it creates a sense of accomplishment, pleasure, personal satisfaction, and happiness. When parents and teachers are successful, they are appreciated from the environment.” (Tchr 8)

Table 8. Results of Strategies Applied

Theme	Sub Theme	Codes
Results of Strategies Applied	Adapting	Fitting the environment (Tchr 1) Ensuring acceptance (Tchr 2, Tchr 11) Compromising (Tchr 10)
	Self Confidence	Increased self-confidence (Tchr 9, Tchr 14) Feeling self-sufficient (Tchr 16)
	Positive Learning - Teaching Experience	Making the course enjoyable, lively (Tchr 13, Tchr 16) Inclusion of students (Tchr 16)
	Increased Personal Competencies	Self and professional development (Tchr 2, Tchr 5, Tchr 9, Tchr 13) Increased coping skills (Tchr 2, Tchr 9) Being creative (Tchr 3, Tchr 7) Being productive (Tchr 3) Increased tolerance level (Tchr 15)
	Having Positive Emotions, Thoughts, Behaviors and Attitudes	Gaining different perspectives (Tchr 2) Increased motivation (Tchr 7) Sense of pleasure (Tchr 8) Professional satisfaction (Tchr 8) Happiness (Tchr 8, Tchr 12, Tchr 14) Feeling good (Tchr 9, Tchr 15) Striving to do your best (Tchr 11) Maintaining their ideals (Tchr 13) Making the love of profession continuous (Tchr 13)
	Settlement of Negative Feelings, Thoughts, Behaviors and Attitudes	Quitting (Tchr 4) Going on being angry (Tchr 4) Withdrawing (Tchr 4) Stress (Tchr 6) Disappointment (Tchr 8) Defeat (Tchr 8) Submission (Tchr 10) Being limited (Tchr 12) Not making an effort (Tchr 15) Wishing to quit (Tchr 16)

“I mean, I tried to talk about what I went through, but it wasn't very effective. I stepped back a bit, I quit. I kept being nervous to myself.” (Tchr 4)

Table 9 shows the findings of the causes of the reality shock experienced by the teachers. In the first years of their work, teachers start with various expectations from the administration, colleagues, students and parents. Besides, the teacher has expectations about university education, profession and himself. The reasons for the reality shock resulting from these expectations and their real-life responses are inadequate university education and internship practices, incompatibility with real-life experiences, inexperience, negative approach of administration and colleagues, lack of value for work, limited opportunities, and insufficient vision.

‘I think they were because of the manager's mistake ... The manager, the assistant manager just resigned yesterday. They're not professionals.’ (Tchr 6)



“I had frustration, lack of self-esteem, inadequacy. I'm better now, I think I'm better at dealing with them now. I'm getting used to it.” (Tchr 9)

“I was worried. Because in theory, I didn't see it that way. In theory, the plan, the program, everything was perfect but the practice was different.” (Tchr 3)

“It was due to me being an inexperienced teacher, being too dignified, not following a policy that was very harsh and intimidating the students and students' benefiting from this.” (Tchr 16)

Table 9. Reasons for Reality Shock

Theme	Sub Theme	Codes
Reasons for Reality Shock	Reasons Caused by Administration And Colleague	Negative approach of the administration (Tchr 1, Tchr 4, Tchr 6, Tchr 10, Tchr 11, Tchr 12) Ignoring problems (Tchr 5) Not being professional (Tchr 6) Lack of a principled working order (Tchr 5) Lack of communication with the administration and teachers (Tchr 8) Lack of idealist colleagues (Tchr 12) Lack of empathy of administration and teachers (Tchr 14)
	Personal Reasons	Being a perfectionist (Tchr 3) Withdrawing (Tchr 4) Seeing yourself inadequate (Tchr 9, Tchr 14) Inability to be brave (Tchr 10) Being timid, shy (Tchr 14) Inability to stand firm (Tchr 16)
	Reasons Related with University Education	Inadequate university education (Tchr 2, Tchr 9) Mismatch of what is learned in theory and real-life practices (Tchr 3, Tchr 7)
	Inadequate Internship Applications	Inability to have an active learning experience during internships (Tchr 2) Not being able to learn concrete experiences during the internship (Tchr 2)
	Reasons Caused by Inexperience	Being inexperienced (Tchr 7, Tchr 16) Not knowing the process and environment (Tchr 15)
	Reasons Caused by Not Appreciating the Job	Not having an appreciation for the branch and things you do (Tchr 12) Your actions' being seen as unnecessary (Tchr 13) Your actions' being seen as workload (Tchr 13)
	Reasons Related with Limited Opportunities	Limited facilities (Tchr 11) Negative social environmental conditions (Tchr 11)

Table 10 provides suggestions for teachers not to experience reality shocks and to effectively cope with the frustration of this shock. Suggestions are provided for vocational education such as practice-oriented university education and internships, involving interaction, real-life practices, being longer and qualified, and providing experiences in different school types and levels. To stand stable and strong, not to give up, to establish communication and cooperation, to receive self-improvement training, to be productive, to ask questions, to make observations, to be open to different expectations, to adapt to the situation are other suggestions in terms of personal and professional development.

“Communication should be a little better, maybe we couldn't do it because of lack of communication, the better the communication, the better the success and the things to do. I could not have had much contact



with the administration and teachers, I could have had better communication, my alternatives could have been more.” (Tchr 8)

“I advise the new teachers to contact the experienced teachers in the region about the administration of the place to be appointed and prepare themselves for this situation.” (Tchr 1)

“I would advise new teachers to observe, recognize people, students, and not be prejudiced. I would suggest that they try to look more objective and ask questions when there is a problem. When you don't know things, you don't know how to do things right, you get wrong.” (Tchr 15)

“I would recommend the new teachers to stand as they were at the beginning, not to give up, to continue with their own decisions.” (Tchr 4)

Table 10. Suggestions

Theme	Sub Theme	Codes
Suggestions	Communication and Cooperation	Communicating effectively with administration and teachers (Tchr 5, Tchr 8) Cooperation with different institutions and organizations (Tchr 8) Sharing with colleagues (Tchr 14) Asking for help from colleagues (Tchr 16)
	Suggestions about Professional Development Process	Communicating with teachers and administrators at the school appointed (Tchr 1) Multiple internships in different institutions (Tchr 2, Tchr 7) Choosing a different profession (Tchr 6) Appointment to the state (Tchr 6) Previous investigation of the school appointed (Tchr 11, Tchr 12) Academically equipped (Tchr 12, Tchr 14) Not losing excitement (Tchr 13)
	Suggestions about Improving Personal Competencies	Preparing yourself for every situation (Tchr 1) Being open to different expectations (Tchr 2) Getting psychological support when you can't cope (Tchr 3, Tchr 9) Receiving self-improvement training (Tchr 9) Thinking positive (Tchr 9) Increasing knowledge (Tchr 9, Tchr 15) Being productive (Tchr 13) Observation (Tchr 14, Tchr 15) Asking questions (Tchr 15)
	Suggestions about Personal and Professional Posture	Not compromising your profession (Tchr 2) Being decisive (Tchr 4) Not giving up (Tchr 4) Standing strong (Tchr 9) Self-confidence (Tchr 10, Tchr 14) Not submitting to unwritten dictations (Tchr 10) Not being prejudiced (Tchr 15) Getting to know the students (Tchr 15) An authoritarian stance against students (Tchr 16)
	Suggestions about Internship Applications	Standardization of internships (Tchr 2) Internship at different schools and levels (Tchr 3, Tchr 8, Tchr 10, Tchr 16) Experiencing different student profiles (Tchr 3, Tchr 8, Tchr 16) Longer internship period (Tchr 6, Tchr 7, Tchr 11, Tchr 14, Tchr 15, Tchr 16) Qualified internship with predominantly practical aspect (Tchr 6, Tchr 7, Tchr 14, Tchr 15, Tchr 16) More supervised internships (Tchr 14)



Suggestions about University Education	Conducting internships as consultancy activities (Tchr 1, Tchr 13) Training curriculum in accordance with practical situations (Tchr 2, Tchr 7) More applied courses (Tchr 3, Tchr 10, Tchr 12) More communication and interaction based courses (Tchr 3, Tchr 4, Tchr 5, Tchr 10) Applications that will contribute to professional development (Tchr 4, Tchr 11, Tchr 13) Reducing student acceptance (Tchr 6) Accepting to university with an interview (Tchr 12)

“I suggest that the internship period should be 12 months, not 6 months, but it should be extended. In the third year, all the theoretical courses may be finished and in the last year, only the internship can be applied. In fact, I think the internship should have two stages. Starting from myself, for the high schools, I can say that internship should be done at different levels with different difficulty student profiles. We do internship in groups that are very ready. It should be divided into two, it can be like one school in February, March and another school until June.” (Tchr 16)

“I would suggest that there should be more practical courses and that they should be supervised by someone, not just student-based institutions, but also parent communication. I did not learn in practice and had difficulty. these should also be given importance.” (Tchr 3)

4. Result, Discussion and Conclusion

According to the results of this research, teachers start working with various expectations about administration, colleagues, students, school and environment. Besides, it is seen that they have idealistic attitudes towards the profession and their own. Moir (1999: 19-23) states that teachers are excited and somewhat anxious about their initial teaching experiences at the expectation stage. He states that new teachers have idealistic ideas about how to achieve their goals.

The fact that teachers do not receive support from their administrative staff and colleagues in the schools they work in, their exposure to negative attitudes and behaviors, limited time despite workload, and difficulty in classroom management also pave the way for revealing reality shock (Betts, 2006: cited in Özkan, 2017: 2). When the findings of the study are examined, it is seen that teachers are disappointed with the issues such as administration, colleagues, students, parents, university education and working conditions.

When the findings of the research are examined, it is seen that the teachers who start to work with various expectations show emotional, behavioral and intellectual reactions when some or most of these expectations are not met. In order to cope with this situation, teachers who are disappointed are applying strategies such as getting administrative and colleague support, seeking new jobs, accepting, adapting and withdrawing. As a result of the strategies they apply, situations such as adaptation, self-confidence, positive or negative attitudes are observed in teachers. Dean, Ferris and Konstans (1985) stated that new teachers experience some physical, behavioral and psychological difficulties due to the reality shock they experience and that changes in their behaviors and attitudes are observed. With tension, insomnia, unwillingness, loss of motivation, feelings of burnout, his belief in himself that the teacher will succeed is also damaged. The pleasure of performing his profession decreases and his values and attitudes towards his profession change. In teachers who think that they cannot cope with reality shock, there are also situations such as the decrease in feelings of attachment and feeling of belonging to the school (Dean, Ferris & Konstans, 1985: 5). Some teachers who cannot struggle with the emotions created by reality shock may even quit their profession.



According to the findings of the research, teachers state that reality shock is caused by negative management and colleague attitude, university education and internship practices not being fully replicated in practice and inexperience.

According to the results of the study, in order to avoid the reality shock and to combat the effects of the reality shock, some suggestion such as making university education and internship practices strong and practice-oriented, increasing personal and professional competencies, having communication and cooperation are offered. In this research, how the teachers define reality shock, what effects the reality shock creates in teachers, how the teachers deal with reality shock, who they get support from, the reasons of reality shock and what are the suggestions to deal with the effects of reality shock are comprehensively discussed. It may be suggested that a similar research can be conducted on a single branch by collecting data from teachers working in a specific region. Determining the levels of reality shock of different occupational groups and revealing the effects of reality shock on different occupational groups can be suggested as a research subject.

References

- Büyüköztürk, Ş. (2012). Bilimsel araştırma yöntemleri (13. baskı). Ankara: Pegem Akademi.
- Carroll, T. L. (2007). Manage yourself for a more fulfilling career. In R. A. Jones (Ed.). Nursing leadership management: Theories, processes and practice, 359-476. Philadelphia: F. A. Davis Company.
- Çalışkan, A., (2010). Yeni mezun hemşirelerde iş doyumu tükenmişlik ve gerçeklik şokunun incelenmesi. Marmara Üniversitesi. Sağlık Bilimleri Enstitüsü, Master Thesis, İstanbul.
- Dean, R. A., Ferris, K. R. Ve Konstans, C. (1985). Reality shock: What happens when a new job does not match expectations. The Annual Convention of the American Psychological Association. Los Angeles CA, 23-27 August 1985.
- Duchscher, JEB. (2008). Transition Shock: The Initial Stage of Role Adaptation for Newly Graduated Registered Nurses. Journal of Advanced Nursing; 65(5):1103-1113.
- Moir, E. (1999). The stages of a teacher's first year. In M. Scherer (Ed.). A better beginning: Supporting and mentoring new teachers: 19-24. Virginia USA: Association for Supervision and Curriculum Development.
- Özkan, S. (2017). Gerçeklik şoku ile örgütsel tükenmişlik ilişkisinin resmi liselerde görev yapan öğretmen görüşlerine göre incelenmesi (Muş ili örneği). Hacettepe Üniversitesi Eğitim Bilimleri Enstitüsü. Master Thesis. Ankara.
- Scott, MJ. (1992). Role Conflict and Reality Shock Among Neophyte Navy Nurses, A Research Project Presented to the Faculty of the Graduate School. San Diego: State University.
- Veenman, S. (1984). Perceived problems of beginning teachers. Review of Educational Research, 54(2): 143–178.
- Yıldırım, A. ve Şimşek, H. (2008). Sosyal bilimlerde nitel araştırma yöntemleri. İstanbul: Seçkin Yayıncılık.



Engagement of Latvian Local Municipalities in Social Entrepreneurship: Problems and Opportunities

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Abstract

Social entrepreneurship is a process of production of goods/offering services with an aim to solve social problems, rather than gain profit. It plays ever growing role in the contemporary society torn up by inequality, discrimination, social estrangement, etc. The purpose of the current investigation is to research the attitude of the Latvian local municipalities to the social entrepreneurship, to determine main problems and to work out the transformation scheme of the local municipalities, as well as specific proposals in the field. In order to attain these goals the authors have employed both quantitative (survey) and qualitative (semi-structured interviews) methods. The results suggest that 59% of municipalities are ready to support social enterprises, rather than found such themselves, thus opportunities are to be found in the sphere of transformation that includes the decentralization of management functions. In the end the article offers a new model of the local municipalities' management functions in relation to the social entrepreneurship.

Keywords: Social entrepreneurship; local municipalities; management functions; social engagement

Introduction

With the beginning of the second decade of the 21st century, the concept of social entrepreneurship in Latvia has become increasingly topical. It has been fueled by practices in other countries, European Union (EU) initiatives, as well as national problems that the public and private sectors are unable to address by now. Discussions related to social entrepreneurship have taken place in Latvia, applied and scientific researches have been carried out, proposals have been made for the development of social entrepreneurship. The scientific and applied material on social entrepreneurship is relatively large compared to other sectors such as territorial marketing and gives a good idea of the current situation. The most significant works regarding the situation in Latvia are: a research "Latvia on the road to social entrepreneurship" (Lešinska et al., 2012), "The development of social entrepreneurship in Latvia: the role of municipalities" (Lukjanska et al., 2017), and "Social enterprises and their ecosystems in Europe. Country report LATVIA" (Līcīte, 2018). The valuable source of information is the report published by the European Commission, that includes information about Latvia, "A map of social enterprises and their eco-systems in Europe, Country Report". (European Commission, 2014) All of the works mentioned above have been developed with the support of various external financial instruments, which emphasize the interest of forces outside Latvia in the development of social entrepreneurship in Latvia. This indicates that social entrepreneurship in Latvia is driven by external forces rather than developed domestically, so in this context the discussion is not about opportunities and problems of social entrepreneurship development, but rather about adaptation of existing models. The exception is an organization that has been granted the status of a public benefit organization, which is described as the Latvian version of what is commonly understood by the term social enterprise. In Latvia, fast expansion of social entrepreneurship was observed in the period 2013–2017



when the concept of social enterprise was defined and the Social Enterprise Law, which came into force on 1 April 2018, was adopted. The Law defines the concept of social enterprise and the goals of a social enterprise, the procedure of acquiring the status of social enterprise as well as other matters. (Legal Acts of the Republic of Latvia, 2017) A common characteristic feature of the legal frameworks of the Baltic States is that the profits of social enterprises are not distributed among their shareholders but allocated for achieving the social goals of the enterprises. (Sannikova & Brante, 2018)

The social business initiative (SBI), launched in 2011 (European Commission, 2018), aims to introduce a short-term action plan to support the development of social enterprises, key stakeholders in the social economy and social innovation. It also aims to prompt a debate on the avenues to be explored in the medium/long term. There are 11 priority measures, organised around 3 themes:

- Making it easier for social enterprises to obtain funding (this includes the legal regulations);
- Increasing the visibility of social entrepreneurship;
- Making the legal environment friendlier for social enterprises.

At the end of 2015, the “Latvian Social Entrepreneurship Association” was established to unite and support entrepreneurs and other entities who consider themselves to be social entrepreneurs. Pressure on the government was intensified by various forms of public debate. Thus, each the association organizes a forum devoted to current development and problems in the field of social business. The Social Business Forum 2019 was dedicated to business models, because every successful business is based on a thoughtful business model. The main questions were: How to turn an idea and desire to help the world into a successful business? Can Social Entrepreneurship be a profitable business? These are the most pressing issues that challenge social entrepreneurs not only in Latvia, but around the world. (Latvijas sociālās uzņēmējdarbības asociācija, n.a.)

Concept of social entrepreneurship. Social entrepreneurship and the related topics are frequently discussed by academicians, business professionals and authorities (Alvord et al., 2004; Austin et al., 2006; Dacin et al., 2011; Dees & Anderson, 2006; Mair & Noboa, 2006; Seelos & Mair, 2005; Shina & Titko, 2017). According to some researchers, the social entrepreneurship development is influenced by the three main factors – the demand (public desire for social services/products, as customer or user), the supply (social entrepreneurs) and third – because of the environment and institutional factor that influence the previous two factors. (Sekliuckiene & Kisielius, 2015) Because the concept of social entrepreneurship is broad and involves different policies in different countries, there is no universally accepted definition of social entrepreneurship in the scientific literature (Dobele, 2013). They are either too broad (eg EU common policies) or too narrow (national context). Therefore, universal social entrepreneurship features (objective) or national legal framework (subjective) are used to define social entrepreneurship. When describing social entrepreneurship, three elements can be distinguished: social entrepreneur (subject), social entrepreneurship (process), social enterprise (object). The latter has been discussed more extensively in the literature. By defining the aforementioned elements in a broader context, a social entrepreneur is a socially minded person who, by doing business, solves socio-economic problems and creates positive changes in society (Dobele, 2013). To describe social entrepreneurship as a process, the definition of Yunus is often used. According to him, social business is a financially sustainable organization created only to solve a social problem. Whereas original investments may be recovered, all potential profits are reinvested to further increase the organization’s social impact. A social business has products, services, customers, markets, expenses, and a revenue like a regular business, it is no-loss, no-dividend, self-sustaining company that repays its owners’ investment. It is not a charity, but a business in every sense. The managerial outlook must be the same as in a conventional profit –maximizing business. (Yunus, 2007) Yunus also puts forward several principles of the social business: business objective is to use market mechanisms to address problems which threaten people and society (e.g. education, health, technology access, environment,



etc.); the business is supported by its stakeholders, the business must achieve financial and economic sustainability; investors get back their fair share of investment while the society benefits from positive externalities created by the business; the business is environmentally conscious; workforce gets market wage with better working conditions, and, finally, social business is a joyful exercise. The European Commission uses the term 'social enterprise' to cover the following types of business:

- Those for whom the social or societal objective of the common good is the reason for the commercial activity, often in the form of a high level of social innovation;
- Those whose profits are mainly reinvested to achieve this social objective;
- Those where the method of organisation or the ownership system reflects the enterprise's mission, using democratic or participatory principles or focusing on social justice. (European Commission, 2018)

There are several legal forms of social enterprises. Many social enterprises operate in the form of social cooperatives, some are registered as private companies limited by guarantee, some are mutual, and a lot of them are non-profit-distributing organisations like provident societies, associations, voluntary organisations, charities or foundations. The legal form and organizational structure of the social business organization depends also on the global requirements, such as demographic shifts, liberalization of national economies and attendant markets, institutional and state failures, and technological advances that increase the calls for more social consciousness within businesses, providing the impetus for the formation of social ventures. (Zahra et al., 2008)

Social business environment subjects and their support. The need for political support instruments for social enterprises stems from their ability to compete on the path to economic sustainability, incl. profit as a result of positive action. State or local government support for social enterprises is needed to counterbalance competitive pressure, but at the same time: "Social enterprises need to be aware that the services they provide and the goods they produce must be of high quality and in demand on the market." (Lešinska et al., 2012) There is currently no direct support mechanism for social enterprises in Latvia, they operate under similar conditions as private enterprises. At present, support for social enterprises is obtained on the basis of the specific features of the enterprise concerned, correspondingly to the conditions of according support mechanisms. For example, support for businesses employing people with disabilities, loans to small and medium-sized enterprises, target co-financing, EU grants, information support, etc. The main external source of finance for social enterprises is grants from various organizations. The availability of aid depends on the legal form of the undertaking, the nature and purpose of its operation and the eligibility of the aid. The factors mentioned and their strength subsequently determine whether the social enterprise concerned is in a position to compete for aid with companies that do not consider themselves to be so. Currently the most extensive support for social entrepreneurship in Latvia is the informative one, which is relatively high considering the activities of the last five years. The studies, reports and reports mentioned above, as well as public activities, are relevant in this context.

Experience of local governments in Latvia. Agencies and municipal authorities in Latvia mainly implement state or municipal policies and are distinguished by the centralization of their work - annual budget planning, centralized accounting, decision making, real estate management, etc. things. Both types of organization are not companies, but bodies performing municipal functions whose brain center is one or the other department or division of the municipality. The main difference, and hence the motive behind the establishment, is that the institution has limited capacity to market its products and services, but the agency is allowed to do so. Institutional action is therefore process-oriented, while agencies work for a specific purpose. This circumstance serves as evidence of the lack of entrepreneurial and institutional social activity in institutions. The number of features of social entrepreneurship is greater in agencies and municipal companies. Article 14 (1) of the Law on Local Governments (Legal Acts of the Republic of Latvia, 1994) stipulates that, in the exercise of their



functions, local authorities shall have the right to form municipal authorities, to form associations or foundations, to capital companies and to invest their funds in capital companies. Based on the aforementioned article of the law, the motive for the establishment of institutions is the provision of functions entrusted to the municipality or the state, for which the institution is used as a tool for achieving the objective. The number of institutions is subordinate to the autonomous functions of the municipality. The core of institutions in the municipality is where the responsibilities of the state and the municipality - to provide people with the right to education, health care and social assistance - merge. Such organizations are more complex in the context of social entrepreneurship because of the wider range of stakeholders. They have different requirements and understanding of what is happening in the institution. This means that in the future it will be more difficult or even impossible to manipulate such institutions in the context of social business. For example, Lukjanska and others (2017) have proposed six models of social entrepreneurship support in municipalities:

1. Isolation - a framework in which no relationship is established between the municipality and social entrepreneurs;
2. "Coffee Shop" is a framework where co-operation between the two parties takes place on an informal basis. The framework most often refers to small municipalities where people know each other well and people may have multiple responsibilities within the municipality. This framework is associated with a high level of mutual understanding, less formal policies are pursued;
3. Partnership - within the framework, both parties benefit from each of the knowledge, competences and resources that are pooled to achieve a common goal;
4. Linking - denotes a partnership between both sides to gain access to external resources;
5. Internal integration - based on an effective internal, interdepartmental coordination system that supports collaboration with both the social economy and other sectors;
6. How can we help? - describes the form of partnership in which; "The municipality responds to requests from social economy network". (Lukjanska and others, 2017)

Prior to explication of the methodology and results of the empirical research, it is necessary to specify the use of some theoretical concepts. *Social support* is defined as the circle of family, friends, neighbors and community members who are able to provide psychological, physical or financial help when needed. There are different forms of social support. The most popular forms of support include individual health restrictions (home care, dysfunction, disability, illness unemployment), high risk and stress (crisis centers, shelters, specialized workshops) and factors of quality of life in order to function well in society (benefits and types, social services). *Social exclusion* represents a wider form of poverty. The European Commission defines poor people as people whose various incomes, as a whole, are incapable of providing basic values and are forced to live below the standard of living in society. In general, poor people are unable to provide themselves with essential basic needs such as food, independent living, health, education, culture. (Atkinson & Davoudi, 2000) *Human resource development and management* is defined as a sequential and strategic approach to managing working resources to achieve organizational or community goals. The concept of human resource development is generally applied to a set of actions based on a concerted decision. Such activities lead to the achievement of the organisation's objectives and to the more effective recruitment, deployment, utilization, development and remuneration of human resources. There are also formal and informal forms of internal (within a company or group) and external (publicly available) development. (Armstrong, 2006)

Research Questions of the current investigation are the following:

RQ1: What are the main problems local municipalities (governments) face regarding social eneterpreneurship?

RQ2: What are possible problem solutions?

Method



To investigate the engagement of Latvian local municipalities in social entrepreneurship the mixed research design was chosen – the formalized survey of the municipalities (the quantitative approach), and the semi-structured interviews with the local government leaders, as well as businessmen involved in the social entrepreneurship (the qualitative approach). The proposed administration of the survey was throughout the Internet, the link was sent to the local governments, members of the network of the association of local governments of Latvia. The method of pilot testing was adopted prior to distributing the questionnaire to all prospective respondents, i.e., it was sent first to three local governments, the ones of the Daugavpils, Krāslava and Rēzekne regions. After their feedback, the number of questions was reduced to 24, and some statements were rephrased to obtain better and clearer wording. In the result, the questionnaire consisted of 24 statements, divided in two groups. The first group (7 questions) part regarded problems the local governments faced and resource availability, while the second part (17 questions) was aimed at disclosing the social function delegation problems their solving possibilities. As to the responses received: the questions in the first part were answered by 49 local governments, while the second part received 35 responses. As this research paper investigates attitudes and beliefs the 5-point Likert scale was used for the questionnaire. The data was collected using a non-probability sample procedure.

On the basis of the prior research and the pilot testing, five main problem groups were delineated by the authors of the current investigation. The respondents were asked to rank them according to their significance for the local municipalities (1=not important, 5=very important). The statements for evaluation were the following:

- Problems of involvement of socially supported (e.g. unemployed);
- Problems of involvement of socially excluded (e.g. ethnic groups);
- Problems of social function delegation by local governments;
- Problems of human resource development;
- Problems of territory improvement.

Then the same statements were used to rank the problems in accordance to resource availability, in general, then each statement was expanded further on to include such parameters as: collaboration partners, human resources, financial resources, appropriate infrastructure.

The second part of the questionnaire (17 questions) was related to problems of delegation of social functions and problem solution possibilities involving the public and private sector subjects. The respondents were asked to evaluate using the 5-point Likert scale the statements regarding position taken by the local government in relation to developing the social entrepreneurship where 1 stands for the passive position (supporting private initiatives in establishing social enterprises), and 5 for the active one (establishing social enterprises themselves). The next portion of questions were devoted to the problem solution variants of the fore-mentioned problems (i.e., involvement of socially supported, involvement of socially excluded, human resource development, territory improvement). The proposed problem solution variants for the local governments to be evaluated according to 5-point Likert scale (1=not important; 5=very important), were the following:

- Take a liberal stand – in the situation of appropriate business environment, ensured by national and local governments, problems will be solved by free market;
- Collaborate and actively support newly established or transformed private social enterprises. Which ones? (the answer place in the square “enterprise”);
- Collaborate and actively support NGOs involved in social entrepreneurship. Which ones? (the answer place in the square “enterprise”);



- Transform local a government agency, company, corporation into a social enterprise. Which ones? (the answer place in the square “enterprise”);
- Establish a new social enterprise under the aegis of local government.

The second part of questionnaire concerned the function delegation practices in collaboration with actors of the private sector at present (private corporations; private corporations where part of shares belong to local governments; NGOs) and in future (private corporations; private corporations where part of shares belong to local governments; NGOs and social enterprises founded by them; social enterprises; hybrid enterprises). The qualitative approach was applied in the form of semi-structured interviews with chief officers of the local governments as well company managers involved in the process. The interviews were carried out to have a deeper insight into and to conceptualize problems the local governments face, altogether 12 respondents were interviewed. The results were analyzed by the means of the inductive content analysis. The process of analysis involves three main phases: preparation, organization, and reporting of results. (Schreier, 2012) Within the current research the preparation consisted of the choice of collection method (semi-structured interviews) and survey sample (representatives of the local governments and socially oriented businesses). The organization phase consisted of the choice of interpretation units (perception of the social entrepreneurship, in general and definition of main problems), while the reporting phase was executed in the article at hand.

Findings

The tasks of this study were to evaluate the possibilities of using social entrepreneurship for the involvement of the socially supported, the inclusion of the marginalized, the delegation of municipal functions, the development of human resources and the improvement of the territory. In the course of the research, local governments were asked about the topicality and significance of the mentioned problems, indicating those areas where a solution would be most needed (see Table 1).

Table 1. Topicality of problems in local municipalities (n=35)

Problem	Topicality
Engagement of socially supported	49%
Human resource development	29%
Delegation of municipal functions	11%
Improvement of territory	11%

The low importance of the problem of territory improvement is due to the relatively successful operation of municipal, including private (especially waste management) limited companies, which satisfies both the inhabitants and the local municipalities, which are more important than the apparent efficiency and progress promised. private sector, but modesty and a great deal of stability guaranteed by the local government. Thus, the problems of territory development in the context of social entrepreneurship should be discussed about the possibilities to improve the operation of the existing municipal capital companies and the niches where these companies are unable to provide a solution.

The analysis of the significance of the problem was carried out in two steps. First, the results of the questionnaires are analyzed by comparing the values of the answers to different questions. Secondly, the results of the questionnaires are analyzed together with statistics obtained from local government budgets using the Treasury database and data tables available at the Central Statistical Bureau. The most important problems in the local governments' answers are “Problems of involvement of socially excluded people” and “Problems of human



resource development". 31 municipalities attach great or very high importance to the "Engagement of socially supported" and 30 Municipalities to the "Human resource development problems". This means that more than 60% of the municipalities that responded to the questionnaire are of the utmost importance (see Table 2).

Table 2. Significance of problems within local municipalities (n=49)

Problem	Topicality
Engagement of socially supported	24%
Human resource development	22%
Delegation of municipal functions	19%
Improvement of territory	19%
Engagement of socially excluded	16%

When analyzing resources for problem solving, most municipalities have noted that none of the problems to be solved are marked by a significant lack of resources. More than half of the municipalities have indicated that there is a moderate or minor lack of resources to address the problems. As a result, the average assessment of resource scarcity is 3 (Table 3), which means that municipalities generally have access to an average amount of resources.

Table 3. Average estimate (mean) of resource availability and problem significance (n=35)

Problem	Resource availability	Problem significance
Engagement of socially supported	3,1	3,8
Human resource development	3,0	3,6
Delegation of municipal functions	3,0	3,0
Improvement of territory	3,0	3,1
Engagement of socially excluded	3,0	2,7

The replies indicate that social observations are involved in society and they are involved in society, but also in society, in development, in welfare and in social development. Consequently, visa issues will be addressed in further research sections as energy resources are inadequately available.

Municipalities were invited to assess the lack of key resources to address the problems identified (see Tables, 1 & 2). Taking into account the diversity of problems, four key resources for solving different problems, which depend on the internal organization of local governments and the influence of external factors, were offered. These resources are:

1. Adequate infrastructure that is an integral part of a problem or supports a specific problem. For example, equipped facilities for training;
2. The financial resources needed both for investment projects to solve the problem and to cover daily expenses;



3. The human resources needed to plan ways to solve the problem, ensure implementation of problem-solving plans, and measure progress in solving the problem;
4. Collaboration partners that provide goods and services for problem solving in situations where municipalities themselves do not have the capacity or knowledge to produce the necessary goods and services.

Fundraising is a complex process and building the appropriate infrastructure is in most cases a capital intensive process. This means that if social enterprises were to address these two municipalities' problems, they would have to be able to raise funding and use it more efficiently than municipalities are currently able to do. With traditional capital market mechanisms, social enterprises would not be able to do this better than municipalities, since from the investor's point of view, social enterprises have a significantly higher risk in the start-up phase than municipalities. However, social enterprises could use new instruments that have only recently emerged in the global capital market, such as social impact bonds or managers in socially responsible investing. Problems related to social inclusion are generally the least urgent among the municipalities surveyed. This is not in line with the common challenges in the European Union, where, for example, the immigrant crisis has become one of the main challenges. In general, social enterprises may be partners in solving this problem, but the responses of local governments indicate that addressing socially excluded inclusion issues is not the highest priority in Latvian municipalities. From the municipality's point of view, similar resource allocation challenges can also be observed in solving socially supported engagement problems. The problem of the involvement of the socially supported is more important than the problem of the inclusion of the socially excluded in Latvian municipalities. Using the correlation method, the results of the answers were evaluated according to various variables characterizing the development of the municipality and the budget lines of the municipality. The analysis of the study included a correlation analysis of the responses (see Table 4).

Table 4. Summary of correlation coefficients

Variables	Problem	Coefficient
Expenditure on social protection per capita	Engagement of socially supported	- 0,01
Expenditure on social protection per capita	Engagement of socially excluded	- 0,06
Changes in the number of legal entities	Delegation of municipal functions	- 0,01
Expenditure on education per capita	Human resource development	- 0,00
Expenditure on land and housing management per capita	Improvement of territory	- 0,21

The authors compared the municipal budgets with the municipalities' own responses to the questionnaire on the availability of resources to address specific problems, and observed that the reliability of the questionnaire responses was high. There are no significant anomalies in the responses to the municipal questionnaire. For example, it is generally not possible to observe cases where municipalities with relatively high development and availability of resources indicate a significant lack of resources. In general, the correlation analysis indicates a weak link between municipal characteristics and municipal responses to the question regarding funding. Negative signs at the coefficients indicate that the link is working in the "right" direction, that is, as the volume of the resource / variable increases, there is a reduction in the resource gap mentioned in the heading of the questionnaire. The strongest link is between the expenditure on land and housing management and the municipality's assessment of the availability of resources for territory improvement problems.



The qualitative method consisted of visiting municipalities, conducting on-the-spot study of the situation and interviewing in a semi structured way the municipal executives and the heads of the institutions competent for the implementation of the problems to be solved in this work. The method is used to better understand, conceptualize and interpret problems at work and to be able to offer appropriate solutions. The range of questions asked to the municipalities was designed to cover the problems and to identify their causes.

Results, Conclusions and Recommendations

Due to the problems of understanding social entrepreneurship, associating it with social services, the center of gravity of the formation of new social enterprises in municipalities could be related to the clients of social services and their employment. Responsibility for the implementation of the projects will be demanded from service managers, who currently, due to their limited ability to deliver the organization's primary functions, do not yet see opportunities to undertake social entrepreneurship initiatives.

1. Local governments in Latvia (59%) would be more willing to support the development of private social enterprises than to establish them themselves (41%). This is why local governments are more likely to transform existing organizations than to set up new social enterprises. In the case of municipal corporations, transformation will be impeded not by objective but by subjective barriers, since heat, water, utilities and spatial planning in municipalities are called "fundamental sectors" that would be difficult for their management to associate with the term social entrepreneurship. Therefore, the services that are in the middle between those offered by the municipal corporation and the authorities will first be transformed. In the municipal government and agency sector, the role of social entrepreneurship is due to: a) Transformation which, by mitigating the impact of the centralization factor, would increase own revenues and reduce their need for municipal funding. Before doing so, you should measure the amount of co-financing that a social enterprise will require from the municipality; (b) not transforming an institution but setting up a new social enterprise which takes over the functions of an institution with market opportunities and business methods. A tandem is emerging where the institution is acting as a municipality, but the company is helping it to make the most of its resources.

2. In the early stages of social entrepreneurship, the niche for establishing new municipal social enterprises can be described as "interdisciplinary", where strategic industries and municipal functions that are well-executed by organizations and NGOs working at municipal level collide. Therefore, the social enterprise niche in Latvia should start where administrative methods are exhausted and end where commercial profitability begins, leaving this niche to hybrid companies and entrepreneurs.

3. With its material and administrative resources, a municipality is strong in starting a business, but weak in generating and managing new business ideas, as the main motive for starting a social enterprise in a municipality will stem from municipal policy where creativity and efficiency are not decisive. A municipality will only establish a social enterprise if it is found that the problem is chronic and it is determined that the operation of the private social enterprise creates more problems than good for the municipality and concludes that for the consumer stability is more important than efficiency.

4. The problem of delegation of functions is the main contradiction of this study. Municipalities would be reluctant to set up new social enterprises, but would not be willing to delegate their functions to the private sector. This is circumstantial evidence that social entrepreneurship is actually happening in Latvia, but it is contradictory by its nature, this entails some negative consequences.

5. The problem of involvement of the socially supported in municipalities is the most urgent (49% of municipalities believe), followed by human resource development problems (29%), especially in the regions. Area improvement problems are less urgent (11%). More than 80% of municipalities have indicated that there



are insufficient resources to solve the problems mentioned. This means that in the area of social and public services there is room for additional service providers - social enterprises founded by the private sector.

6. Regarding human resource development, municipal social enterprises would also be reluctant to support the private sector. Social business opportunities are linked to the education sector, where, in tandem, a municipal authority and a private social enterprise would be expected to diversify the municipal service and optimize the use of institutional resources. The second segment of potential development in the field of human resource development is the promotion of entrepreneurship and the promotion of the return of people, where the interests of the municipality and the local businesses collide. Currently, co-financing of student and start-up companies, as well as support for attracting priority professions, is the most common practice.

7. It is advisable for municipal management to look at social entrepreneurship opportunities in a broader, societal context, not just in the context of social services. This will make it possible to assess the role of different entities, municipal and private, in social entrepreneurship and how to support them. It is particularly advisable to evaluate the hybrid business practices and opportunities of a particular municipality, as this issue is poorly studied in Latvia.

8. In the future, when municipalities set up social enterprises, it is advisable to use them not only as a tool for policy implementation, but also as a way of driving innovation within the municipality to solve the existing problems. This would be facilitated by a more active involvement of private sector social enterprises in supporting those individuals who are already pursuing a social mission, driven by personal calling, in parallel with commercial activities. In order to stimulate such entrepreneurs, municipalities are advised not to confine themselves to procurement contracts but to use more efficient forms of delegation of municipal functions.

References

- Alvord, S. H., Brown, L. D., & Letts, C. W. (2004). Social Entrepreneurship and Societal Transformation an Exploratory Study. *The journal of applied behavioral science*, 40(3), 260-282.
- Armstrong, M. (2006) *A Handbook of Human Resource Management Practice*. 10th Edition, London: Kogan Page Publishing.
- Atkinson, R., Davoudi, S. (2000). Combating Social Exclusion in Europe: The New Urban Policy Challenge. *Urban Studies*, 37(5-6), 1037-1055.
- Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and Commercial Entrepreneurship: Same, Different, or Both? *Entrepreneurship: Theory and Practice*, 30(1), 1-22.
- Dacin, M. T., Dacin, P. A., & Tracey, P. (2011). Social Entrepreneurship: A Critique and Future Directions. *Organization Science*, 22(5), 1203-1213.
- Dees, J. G., Anderson, B. B. (2006). Framing a Theory of Social Entrepreneurship: Building on Two schools of Practice and Thought. *Research on Social Entrepreneurship: Understanding and Contributing to an Emerging field*, 1(3), 39-66.
- Dobeļe, L. (2013). Sociālās uzņēmējdarbības attīstības iespējas Latvijā. Online [Accessed 25 June, 2019] Retrieved from: http://lufb.llu.lv/dissertation-summary/entrepreneurship/LasmaDobeļe_promoc_d_kopsavilkums_2014_LLU_ESAF.pdf
- European Commission. (2010). EUROPE 2020 A strategy for smart, sustainable and inclusive growth. Online [Accessed 1 May, 2019] Retrieved from <http://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf>
- European Commission. (2014). A map of social enterprises and their eco-systems in Europe, Country Report: Latvia. Online [Accessed 15 May, 2019] Retrieved from: http://www.lm.gov.lv/upload/darbs_eng/se_mapping_country_report_latvia.pdf



- European Commission. (2018). Social economy in the EU. Online [Accessed 24 May, 2019] Retrieved from: https://ec.europa.eu/growth/sectors/social-economy/enterprises_en
- Latvijas sociālās uzņēmējdarbības asociācija. Online [Accessed 29 June, 2019] Retrieved from: <https://sua.lv/>
- Legal Acts of the Republic of Latvia. (1994). Local Government Law. Online [Accessed 20 May, 2019] Retrieved from: <https://likumi.lv/ta/id/57255-par-pasvaldibam>
- Legal Acts of the Republic of Latvia. (2017). Social Enterprise Law. Online [Accessed 20 May, 2019] Retrieved from: <https://likumi.lv/ta/en/en/id/294484>
- Lešinska, A., Litvins, G., Pīpiķe, R., Šimanska, I., Kupics, O., Buševica, K. (2012). Latvija ceļā uz sociālo uzņēmējdarbību. Online [Accessed 16 June, 2019] Retrieved from http://providus.lv/article_files/2265/original/SU_gala_9nov.pdf?1352889758
- Līcīte, L. (2018). Social enterprises and their ecosystems in Europe. Country report LATVIA. Online [Accessed 14 May, 2019] Retrieved from <https://sua.lv/wp-content/uploads/2018/12/Social-enterprises-and-their-ecosystems-in-Europe.-Country-report-Latvia.pdf>
- Lukjanska, R., Kuznecova, J., & Cirule, I. (2017). The development of social entrepreneurship in Latvia: the role of municipalities. *International Journal of Business and Globalization*, 18(3), 318 – 336.
- Mair, J., Noboa, E. (2006). Social entrepreneurship: How intentions to create a social venture are formed. *Social entrepreneurship*. Palgrave Macmillan UK, 121-135.
- National Development Plan of Latvia for 2014-2020. (2012). Online [Accessed 25 May, 2019] Retrieved from http://www.pkc.gov.lv/sites/default/files/images-legacy/NAP2020%20dokumenti/NDP2020_English_Final.pdf
- Sannikova, A., Brante, I. (2018). Development of Social Entrepreneurship in Latvia. *Business, Management and Education*, 16(1), 147–159.
- Schreier, M. (2012). *Qualitative content analysis in practice*. Thousand Oaks, CA: Sage.
- Seelosa, C., Mair, J. (2005). Social entrepreneurship: Creating new business models to serve the poor. *Business Horizons*, 48, 241—246.
- Sekliuckiene, J., Kisielius, E. (2015). Development of Social Entrepreneurship Initiatives: A Theoretical Framework. *Procedia -Social and Behavioral Sciences*, (213), 1015-1019.
- Shina, I., Titko, J. (2017). Social Entrepreneurship Development Factors in Europe. *Proceedings of the 2017 International Conference "ECONOMIC SCIENCE FOR RURAL DEVELOPMENT"*, 46 Jelgava, LLU ESAF, 27-28 April 2017, 158-165. http://llufb.llu.lv/conference/economic_science_rural/2017/Latvia_ESRD_46_2017-158-165.pdf
- Yunus, M. (2007). *Creating the World Without Poverty. Social Business and the Future of Capitalism*. New York: Public Affairs.
- Zahra, S. A., Rawhouser, H. N., Bhawe, N., Neubaum, D. O., & Hayton, J. C. (2008). Globalization of Social Entrepreneurship Opportunities. *Strategic Entrepreneurship Journal*, 2, 117–13.



Learning Approaches in University Students in the Context of Certain Demographic Characteristics

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Abstract

The objective of the present paper is to analyse the factor of learning approaches in the context of selected demographic characteristics in university students. The research sample consisted of 710 students (mean age = 22.61, SD = 4.173, range 19-55 years) of whom 116 were male and 594 were female. Data collection was performed by means of the Revised Two Factor Study Process Questionnaire (R-SPQ-2F). In the context of gender, the results suggested that men and women differed in the choice of surface approach ($p = .005$, men have a higher score), in the context of the form of study (full-time vs. part-time) where significant differences were observed in the deep approach learning style ($p = .021$, part-time students have a higher score); in the context of the type of study (teaching vs. non-teaching courses) where students of non-teaching courses had a higher score in deep motive ($p = .017$).

Keywords: university student, learning approaches, learning, teacher

Introduction

In the context of learning, there are many concepts that try to define the ways people learn. In this respect, frequent terms are learning styles and learning processes or learning approaches. Although it may seem that these terms are identical, it would be a mistake to confuse them. The concept of “learning style” generally expresses an individual way of learning. According to the Dictionary of Education (Průcha, Walterová, Mareš, 2001), learning styles are procedures in learning used by individuals at a specific stage of life in most situations of an educational type (Favre, 2007b). Mareš (1998, 2013) defines learning styles as procedures in learning that individuals prefer in a given period. These are procedures that are distinctive in their focus, motivation, structure, sequence, depth, comprehensiveness, and flexibility. Another concept – learning strategies – encompasses the selection of a specific plan undertaken by a student (Witkin, Moore, Goodenough, 1977; Tremblay, Maclean, 2013). Learning approaches can be defined as a philosophical concept and also as the didactic method of teaching and learning strategies. This includes the learning objectives that comprise furthering knowledge, repetition and reconstruction, application, understanding, observation from a different perspective etc. (Dart, Burnett, Purdie, Boulton-Lewis, Campbell, & Smith, 2000). In a simplified way, learning approaches comprise of a motive and an appropriate strategy (Biggs, 1987a). Although it is necessary to distinguish between the two constructs, there is a link between them because learning approaches are associated with and affected by learning strengths, also known as learning styles. The concept of learning strengths has various definitions that attempt to



show the complexity of examining the learning process (Swanson, 1995), but in principle, all definitions focus on the fundamental question of how a person learns.

Mareš (1998), Biggs, (1999), or Kember (2000) classify learning approaches to surface, deep, and strategic approaches. The surface learning approach is typically used by students who do not enjoy learning. They learn because they have to and because they want to get over it as soon as possible. Therefore, they try to learn texts by heart. The result of this type of learning is little or no understanding of the learning content, and what is learned is soon forgotten. As far as the deep learning approach is concerned, students long for new knowledge, they like learning and are interested in the learning content. Their learning is dominated by intrinsic motivation, they try to understand the learning content and remember it well. The strategic learning approach means that students try to achieve the best possible marks, are competitive, try to be cunning, but basically they are not interested in the learning content. This is a rather performance-oriented approach. Students learn according to the requirements of the teacher who tests them. This means that if the teacher is benevolent, students tend to use the surface learning approach, while a stringent teacher makes them use the deep learning approach. According to Biggs (1999), the most successful students are those who combine the deep and performance-oriented (strategic) approach. These students are highly motivated and capable of efficient use of planning strategies. The least successful students are those with low motivation, who are inclined to the surface approach. The selection of a specific learning approach depends on the specific learning content. A single student may approach various tasks in various ways. A good teacher should respect students' individual learning needs, but absolute adaptation could be counter-productive and need not encourage students (Oluremi, 2015).

Biggs, Kember, & Leung (2001) offer a measurement tool designed to map the last two learning approaches mentioned above. The original version of this measurement tool (Study Process Questionnaire-SPQ) (Biggs, 1987a, 1987b) was designed in 1970s. Since then the nature of education has changed with respect to factors such as heterogeneity of the student population, structure, institutional administration, extent and depth of learning, etc. The main reason for the redevelopment of this measurement tool was the need to update information relating to an analysis of the study environment and an increase in educational quality. The teacher assumes responsibility for teaching and is supposed to support deep approaches to education. The advantage of the method is that it can also be used by teachers to evaluate their own teaching and their students' approaches to learning.

Current beliefs are that each individual has their own style of acquiring new knowledge and learning that affects their thinking, behaviour, attitude to learning, and ways in which they process information. The knowledge about learning approaches is crucial in the academic environment (and especially for future teachers and other professionals in this area) and therefore it is desirable to monitor and analyse the ways that learning approaches develop and change and which variables affect them.

Methodology

The aim of the study was to analyse individual domains of learning approaches and whether these domains were somehow affected by demographic characteristics of university students.

Research questions

- What are the differences in the preference of learning approaches in relation to gender?
- What are the differences in the preference of learning approaches in relation to form of study (full-time vs. part-time)?
- What are the differences in the preference of learning approaches in relation to type of study (teaching vs. non-teaching courses)?
- What are the correlations between learning approaches and students' age?



- What are the differences in the preferences of learning approaches in relation to various grades?
- What are the differences in the preference of learning approaches in relation to students' special educational needs?

Research sample

The research sample consisted of 710 university students (mean age = 22.61, SD = 4.173, range 19-55 years) of whom 116 were male (mean age = 23.34, SD = 3.578, range = 19-42 years) and 594 were female (mean age = 22.47, SD = 4.268, range = 19-55 years). Detailed characteristics of the research sample are shown in Tables 1 and 2.

Table 1. Numbers of respondents by year of study

Year of study	Frequency	%	Cumulat. %
1.	219	30,8	30,8
2.	239	33,7	64,5
3.	8	1,1	65,6
4. / 1. post Bachelor	222	31,3	96,9
5. / 2. post Bachelor	22	3,1	100
Total	710	100	

Table 2. Numbers of respondents by other study characteristics

		Frequency	%	Cumulat. %
Form of study				
	full-time	631	88,9	88,9
	part-time	79	11,1	100,0
Type of study				
	teaching ¹	622	87,6	87,6
	non teaching	88	12,4	100,0
Spec. educ. needs				
	no	693	97,6	97,6
	yes	17	2,4	100,0

The study was conducted in compliance with applicable ethical principles. The research study involved university students on a voluntary basis; the participants were informed about a possibility to terminate their participation at any stage of the research without giving a reason. The participants consented to anonymous data processing and use of data for scientific purposes.

Research methods

The Revised Two Factor Study Process Questionnaire (R-SPQ-2F; Biggs, Kember, & Leung, 2001) is a 20-item questionnaire designed to assess students' approaches to learning through 4 subscales: Deep Motive, Deep Strategy, Surface Motive and Surface Strategy, and 2 higher order factors: Deep Approach and Surface Approach. The current version of the questionnaire has very good psychometric properties. The questionnaire reliability is of an acceptable level: $\omega = 0.73$ for deep approach and $\omega = 0.64$ for surface approach.

¹ Teacher training courses (preschool teachers, primary school teachers, lower secondary school teachers, secondary school teachers), non-teaching disciplines (e.g. speech-language pathology, special preschool education, dramatherapy, mentoring, social work, etc.).



Statistical procedures applied: The data were analysed in SPSS 21 using descriptive statistics calculation, t-test, Mann-Whitney U test, correlation analysis, and ANOVA. The assumptions were verified in advance.

Findings

Means and standard deviations for the scales are shown in Table 3.

Table 3. Průměry, směrodatné odchylky a reliabilita pro dimenze učebních stylů

		Deep Motive	Deep Strategy	Surface Motive	Surface Strategy	Deep Approach	Surface Approach
Entire sample	$\bar{x}$	13,88	13,59	12,63	13,86	27,47	26,49
	SD	3,55	3,58	3,65	3,74	6,56	6,88
Men	$\bar{x}$	13,72	13,57	13,84	14,54	27,28	28,39
	SD	4,14	4,02	4,25	4,32	7,59	8,05
Women	$\bar{x}$	13,92	13,59	12,40	13,73	27,51	26,12
	SD	3,42	3,49	3,47	3,61	6,34	6,57
Full-time study	$\bar{x}$	13,79	13,48	12,63	13,92	27,27	26,55
	SD	3,47	3,50	3,63	3,74	6,38	6,84
Part-time study	$\bar{x}$	14,61	14,47	12,67	13,37	29,08	26,04
	SD	4,06	4,12	3,78	3,80	7,72	7,20
Teaching	$\bar{x}$	13,77	13,51	12,73	14,01	27,27	26,73
	SD	3,46	3,55	3,60	3,73	6,44	6,80
Non teaching	$\bar{x}$	14,73	14,15	11,97	12,83	28,88	24,80
	SD	4,03	3,76	3,92	3,71	7,26	7,23
α		0,700	0,725	0,700	0,679	0,829	0,823

Table 4. t-test of the differences in learning approaches in relation to gender

	t	df	p	Mean Diff.	SE Diff.	95% CI	
						Lower	Upper
Deep Motive	-0,494	147	,622	-,202	,409	-1,010	,606
Deep Strategy	-0,060	708	,952	-,022	,364	-,736	,692
Surface Motive	3,453	146	,001	1,449	,420	,620	2,279
Surface Strategy	1,907	148	,058	,816	,428	-,030	1,661
Deep Approach	-,298	147,954	,766	-,224	,752	-1,709	1,261
Surface Approach	2,852	146,396	,005	2,265	,794	,696	3,834

In the context of gender, the results suggested differences between men and women in the preferences of learning approaches, specifically in the selection of surface approach ($p = .005$, men have a higher score), subdimension surface motive ($p = .001$, men have a higher score) (see Tab. 4).

Table 5. t- test of the differences in learning approaches in relation to form of study

	t	df	p	Mean Diff.	SE Diff.	95% CI	
						Lower	Upper
Deep Motive	-1,926	708	,055	-,814	,422	-1,643	,016
Deep Strategy	-2,327	708	,020	-,991	,426	-1,828	-,155
Surface Motive	-,099	708	,921	-,043	,436	-,899	,812
Surface Strategy	1,243	708	,214	,555	,447	-,322	1,432
Deep Approach	-2,313	708,000	,021	-1,805	,780	-3,337	-,273
Surface Approach	0,624	708,000	,533	,512	,821	-1,100	2,124



In terms of form of study (full-time vs. part-time), significant differences were observed in the preferences of learning approaches, specifically deep approach ($p = .021$, part-time students have a higher score), subdimension deep strategy ($p = .020$, part-time students have a higher score) (see Tab. 5).

Table 6. t-test of the differences in learning approaches in relation to type of study

	t	df	p	Mean Diff.	SE Diff.	95% CI	
						Lower	Upper
Deep Motive	-2,389	708	,017	-,962	,403	-1,752	-,172
Deep Strategy	-1,570	708	,117	-,640	,407	-1,440	,160
Surface Motive	1,834	708	,067	,761	,415	-,053	1,575
Surface Strategy	2,773	708	,006	1,177	,424	,344	2,010
Deep Approach	-2,149	708,000	,032	-1,602	,745	-3,065	-,139
Surface Approach	2,483	708,000	,013	1,938	,780	,406	3,470

In the context of type of study (teaching vs. non-teaching courses), more significant differences were observed (see Tab. 6). In terms of deep approach ($p = .032$) students of non-teaching courses had a higher score in deep motive ($p = .017$). In terms of the surface approach ($p = .013$) students of teaching courses had a higher score in surface strategy ($p = .006$).

Table 7. Correlation analysis of the relationship between learning approach and age

	1	2	3	4	5	6
Age	,136**	,107**	-,013	-,066	,132**	-,043

* significant at a level of $\alpha = .05$

Note: 1: Deep Motive, 2: Deep Strategy, 3: Surface Motive, 4: Surface Strategy, 5: Deep Approach, 6: Surface Approach

The results of the Pearson correlation analysis suggested a significant correlation between age and deep motive ($r = .136$, $r^2 = .018$, $p < .001$), deep strategy ($r = .107$, $r^2 = .011$, $p = .004$) and deep approach in general ($r = .132$, $r^2 = .017$, $p < .001$). This is a positive correlation, i.e. the preference of deep learning increases with age (see Tab. 7).

Table 8. ANOVA test of differences in learning approaches in the context of grades

	F	df	p
Deep Motive	1,886	4, 705	,111
Deep Strategy	1,5271,503	4, 705	,199
Surface Motive	,0752,625	4, 705	,034
Surface Strategy	5,1452,029	4, 705	,089
Deep Approach	,7081,741	4, 705	,139
Surface Approach	5,1862,604	4, 705	,035

An analysis of the differences in the preferences of learning approaches in the context of grades suggested that students from various grades significantly differed only in one approach and one of its subdimensions (see Tab. 8). Specifically, the difference is in surface approach ($p = .035$) in the dimension of surface motive ($p = .034$). A significant difference is always between grade 1 and 2 ($p = .012$ and $.014$), where first graders achieve a significantly lower score. No significant differences were observed between other grades in the context of these learning approaches or other learning approaches.

Table 9. Mann-Whitney U test rozdílů v učebním stylu ve vztahu k speciálním pedagogickým potřebám

	U	Z	p
Deep Motive	4293,000	-1,919	,055
Deep Strategy	4854,500	-1,245	,213



Surface Motive	4705,500	-1,424	,154
Surface Strategy	5605,000	-,343	,732
Deep Approach	4484,500	-1,685	,092
Surface Approach	5097,500	-,950	,342

Finally, an analysis of the differences in the context of students' special educational needs did not suggest any differences in the preferences of learning approaches (see Tab. 9).

Results, Conclusions and Recommendations

Learning approaches affect the way students learn and approach learning situations. Understanding students' learning approaches is important in trying to increase learning effectiveness and academic achievement (Hogan, Parker, Wiener, Watters, Wood, Oke, 2010). The objective of the present study was to investigate learning approaches among university students with respect to selected demographic data.

For teachers, the basic principle of recognizing learning approaches in students is to perform a detailed analysis of their own learning approaches (strengths and weaknesses) and ways they transfer their own learning styles into the group they teach. The significance of this statement is supported by the selection of the sample of respondents in the present research. This was a future socio-professional group of teachers – students of faculties of education. The ability to recognize various learning approaches in students and to better understand oneself and colleagues is very valuable for teachers. As a result of this ability, teachers should be able to teach all types of learners including those who have difficulty learning and experience problems with emotions and behaviour, and should be able to help them and adjust teaching to their learning approaches. Teachers try to present the learning content in a way that best suits their students' strengths (Riding, Rayner, 1998). This leads to increased academic performance and better attitudes to the educational institution (Lovelace, 2005). The development of a learning approach requires acknowledgement of the need for various strategies that complement individual differences. As a result, teachers exert joint effort to eradicate the universal approach and acknowledge the need for the adjustment of (inter alia) classroom physical factors, instruction procedures, and assessment (Favre, 2007a, Favre, 2007b, Fine, 2003). The parties involved in education agree that these adjustments are a prerequisite to academic achievement. In principle, textbooks and study materials gradually change from analytical, auditory and visual to a more global, kinaesthetic and tactile form of learning (Fin, 2003).

Following the above, several research questions were formulated. The first question related to the differences in the preferences of learning approaches in relation to gender. In the context of gender, the results suggested differences between men and women in the preferences of learning approaches, specifically in the selection of surface approach with men having a higher score in the subdimension of surface motive. This result is not surprising because boys (future men) are known for using the surface approach already in earlier developmental periods (during compulsory education). On the other hand, the conclusions by Janošová (2008) suggest that the current school environment tends to support those requirements that are favoured by girls. This could be one of the causes that clarifies a more superficial learning approach of male students (as opposed to female students). Similar findings were reported by Amir, Jelas, Rahman (2011), who investigated the learning approaches of students of various fields of study. Male students showed greater tendencies to independence, evasive behaviour and surface learning approach, while female students were shown to be more participatory. Similarly, in their study Hoffmann, Stover, Uriel and Liporace (2015) confirmed the pragmatic approach among men and younger students.

The second research question related to the differences in the preferences of learning approaches in relation to form of study (full-time vs. part-time). As far as form of study is concerned, significant differences were observed in the preferences of deep approach in part-time students (as opposed to full-time students), specifically in the deep strategy subdimension. According to Biggs (1999), this type of strategy is typically used by more



successful students. According to the author, academic achievement is strengthened when students combine the deep and performance-oriented (strategic) approach. These students are highly motivated and capable of efficient use of planning strategies. In the case of part-time students this approach is obvious. These are mostly students in higher grades who are careful about their time and energy. They usually have a job and family responsibilities and need to pass their exams at the first attempt. Therefore, they tend to be more responsible in their attitude to learning and tend to use a more reliable learning approach.

The third research question related to the differences in the preferences of learning approaches in relation to type of study (teaching vs. non-teaching courses). In the context of these variables, students of non-teaching courses had a higher score in deep approach and a higher score in deep motive. In terms of surface approach students of teaching courses had a higher score in surface strategy. This is not a positive result for the sample of future teachers. In this sense, it is desirable to analyse the suitability or need of teacher counselling.

The fourth question related to the correlation between learning approaches and students' age. The results suggested a significant correlation between age and deep motive, deep strategy and deep approach in general. It has been confirmed that the preference of deep learning increases with age. According to Mareš (1998), Biggs, (1999), Kember (2000) the deep learning approach motivates students to find out new knowledge, they like learning and are interested in the learning content. Their learning is dominated by intrinsic motivation, they try to understand the learning content and remember it well. It could be speculated that this is a responsible approach to study leading to improved academic achievement. This is usually typical of individuals who are mature in terms of personality development and achieve their own identity (i.e. need for personal and social meaning) (Langmeier, Matějček, 1974; Macek, 2003) and postconventional morality (Kohlberg, Hersh 1977). This conclusion is consistent with the results of preferences of learning approaches in relation to form of study (full-time vs. part-time, see research question two above).

The fifth research question related to the differences in the preferences of learning approaches in relation to various grades. An analysis of the differences in the preferences of learning approaches in the context of grades suggested that students from various grades significantly differed only in one approach and one of its subdimensions, specifically the surface motive dimension. A significant difference is always between grade 1 and 2, where first graders achieve a significantly lower score. No significant differences were observed between other grades in the context of these learning approaches or other learning approaches. These findings are somewhat surprising concerning the fact that first graders are newcomers. They have no experience with university study and usually take it seriously. They try to meet their requirements and understand the system. Empirical research findings correspond with some attitudes and learning approaches of students in higher grades who have already become accustomed to the system and tend to select the surface learning approach because they want to get over their study as quickly as possible (Mareš, 1998; Biggs, 1999, Kember, Wong, 2000).

The sixth and final question examined the differences in the preferences of learning approaches in relation to students' special educational needs. This is an additional finding because the number of these students in the research sample is low and the results cannot be generalized. The interpretation of this result can be considered a possible research direction in the future. An analysis of the differences in the context of students' special educational needs did not suggest any differences in the preferences of learning approaches. Current universities and especially faculties of education are open to students with special educational needs. For these students, psychological and special educational counselling centres are provided, in which these students have an opportunity to consult their needs with professionals (university teachers). Also in this case, the implications of these findings are discussed in terms of teaching and learning in universities in ways that correspond with various needs and study approaches of students with special educational needs in order to improve their learning, support lifelong learning, and strengthen their chances on the labour market.



The learning approach is a style that people choose when they learn something new. The way that people learn and process new information is one of the many factors that make each individual unique. After some time of using these strategies it can be anticipated that students know which educational strategies to use to resolve their problems. As a result, they will be able to accept responsibility for the impacts of their teaching (see also Oluremi, 2015). Teachers should be able to help students reveal their own educational preferences and provide constructive feedback on the advantages and disadvantages of various approaches. Research studies aimed at preferences of learning approaches are crucial in terms of helping students understand their own study approaches in order for them to use their strengths in an effective way.

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References

- Amir, R., Jelas, Z. M., Rahman, S. (2011). Learning Styles of University Students: Implications for Teaching and Learning. *World Applied Sciences Journal*, 14, 22-26.
- Biggs, J. B. (1987a). *Student Approaches to Learning and Studying*. Camberwell, Vic.
- Biggs, J.B. (1987b). *The Study Process Questionnaire (SPQ): Manual*. Hawthorn, Vic.
- Biggs, J. (1999). *Teaching for Quality Learning at University* (pp. 165-203). Buckingham, UK: SRHE and Open University Press.
- Biggs, J. B., Kember, D., Leung, D. Y. P. (2001) The Revised Two Factor Study Process Questionnaire: R-SPQ-2F. *British Journal of Educational Psychology*, 71, 133-149
- Dart, B. C., Burnett, P. C., Purdie, N., Boulton-Lewis, G., Campbell, J., Smith, D. (2000). Students' conceptions of learning, the classroom environment, and approaches to learning. *The Journal of Educational Research*, 93(4), 262-270.
- Favre, L. (2007a). Analysis of the transition of a low socio-economic status African-American New Orleans elementary school into a demonstration learning-style school of excellence. *Journal of Urban Education* 4(1), 79-90.
- Favre, L. (2007b). Impact of learning-style strategies on urban-poverty, minority students debunking the city kid myth. In *Synthesis of the Dunn and Dunn learning style model research, who, what, when, where and so what?* (Dunn & S.A. Griggs, eds.), 81-86. Jamaica, NY: John's University's Center for the Study of Learning and Teaching Styles.
- Fine, D. (2003). A sense of learning style. *Practical leadership*, 4(2), 55-59.
- Hoffmann, A. F., Stover, J. B., Uriel, F., Liporace, M. M. F. (2015). Learning Styles and Academic Achievement in College Students from Buenos Aires. *International Journal of Psychological Studies*, 7(3), 141-156.
- Hogan, M. J., Parker, J., D. A., Wiener, J., Watters, C., Wood, L. M., Oke, A. (2010). Academic Access in adolescence: Relationships among verbal IQ, social support and emotional intelligence. *Australian Journal of Psychology*, 62(1), 30-34.
- Janošová, P. (2008). *Dívčí a chlapecká identita*. Praha: Grada.
- Kember, D., Wong, A. (2000). Implications for evaluation from a study of students' perceptions of good and poor teaching. *Higher Education*, 40, 69-97.
- Kohlberg, L., Hersh, R. H. (1977). Moral development: A review of the theory. *Theory Into Practice*, 16(2), 53-59.
- Langmeier, J., Matějček, Z. (1974). *Psychická deprivace v dětství*. Praha: Avicenum, zdravotnické nakladatelství.
- Lovelace, M. K. (2005). A meta-analysis of experimental research based on the Dunn and Dunn learning style model, 1980-2000. *Journal of Educational Research*, 98(3), 176-183.



- Macek, P. (2003). *Adolescence*. Praha: Portál.
- Mareš, J. (1998). *Styly učení žáků a studentů*. Praha: Portál.
- Mareš, J. (2013). *Pedagogická psychologie*. Praha: Portál.
- Oluremi, F., D. (2015). Learning Styles among College Students. *International Journal for Cross-Disciplinary Subjects in Education (IJCDSE)*, 5(4), 2631-2640.
- Průcha, J., Walterová, E., Mareš, J. (2001). *Pedagogický slovník*. Praha: Portál.
- Riding, R., Rayner, S. (1998). *Cognitive Styles and Learning Strategies: Understanding Style Differences in Learning and Behaviour*. London: David Fulton.
- Tremblay, R., MacLean, P. (2013). *Validity of learning styles*. In Multichannel Learning Systems (MLS). Available <https://www.slideshare.net/remmer/validity-of-learning-styles-remi-tremblay-and-p> cited 24.06.2019
- Swanson, L. J. (1995). Learning styles: A review of the literature. USA: Office of Educational Research and Improvement, U.S. Department of Educational Research and Development. 22 p. <http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED387067>
- Witkin, H., Moore C., Goodenough, D., Cox, P. (1977). Field- dependent and Fieldindependent. Cognitive styles and their educational implications. *Review of educational research*, 47(1), 1-64.



Academic motivation in the Context of Demographic and Study Characteristics

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Abstract

The present paper focuses on an analysis of academic motivation among university students in the context of demographic and study variables (type of study, form of study). The research sample consisted of 710 university students (mean age = 22.61, SD = 4.173, range 19-55 years) of whom 116 were male and 594 were female. The data were obtained by means of the Academic Motivation Scale (AMSC-28, Vallerand, et al., 1992). The results of the survey suggest statistically significant differences in the context of gender and age. There are significant differences between men and women in the following dimensions Intrinsic motivation – to know (women have a higher score), Extrinsic motivation – identified (women have a higher score), and amotivation (men have a higher score). In relation to age, the results of the Pearson correlation analysis confirmed a significant correlation between extrinsic motivation – identified and extrinsic motivation – external regulation, which decrease with age.

Keywords: motivation, academic motivation, students

Introduction

The concept of motivation is investigated in various scientific disciplines and primarily focuses on an analysis of “what and why” people do (Deci, Ryan, 2000). Motivation is primarily described as a process that determines the focus of an individual on achieving specific objectives, its intensity and duration. Many research studies focus on performance motivation, which is considered a substantial performance determinant. In the context of performance motivation, the need for high performance is considered central by many authors (Atkinson, Feather, 1966). Various types of motivation are generally regarded as factors affecting the level of performance and the way students learn (Ormond, 2003). Setting the performance may then affect academic motivation, which is often considered motivation for learning and motivation for study. Academic motivation as an integral part of university study and deals with psychological processes that lead to learning and the reasons why people study (Murtonen, Olkinuora, Tynjälä, Lehtinen 2008; Paulsen, Feldman, 2005). It is examined from many theoretical views and perspectives. In terms of academic motivation, the authors of the self-determination theory (SDT) Deci and Ryan (2008) primarily distinguish between two basic types of motivation: intrinsic and extrinsic. Intrinsic motivation means that a person performs an activity for the sake of the activity itself because it is interesting and satisfying. Extrinsic motivation refers to involvement in activities, where certain, especially external, consequences are expected (reward or punishment). However, these two types of motivation do not work in synergy. It was observed that behaviour motivated from the outside decreased the level of intrinsic motivation irrespective of age, activity or reward (Deci, Koestner, Ryan, 1999). The concepts of intrinsic and extrinsic motivation appeared in psychology more than forty years ago (Nakonečný, 2015). The boundaries between these types of motivation are unclear and some types of activities may include both types. Extrinsic



motivation is important for students who do not consider their study as entertaining or interesting. In the context of motivation, correlating variables are often values, objectives, self-efficacy in the sense of personal conviction of an individual about one's abilities, and attribution tendency. Academic motivation is then the result of the factors mentioned above and personality dispositions of the individual. The importance of academic motivation is further strengthened by the repeatedly confirmed significant positive association between academic motivation and academic achievement (Wentzel, 1999). It has been shown that a student with high academic motivation has a desire to learn, which leads to success and recognizing that learning is beneficial (Brown, 2009). The assumption that people are naturally curious and have a natural interest in learning is the basis of the already mentioned self-determination theory (Deci, Ryan, 2000).

A measurement scale for assessing academic motivation in relation to the self-determination theory was designed by Vallerand, Pelletier, Blais, Brière, Senécal and Vallières (1992). The scale includes a total of 28 items arranged in seven subscales and assessing three types of intrinsic motivation (motivation "to know", "toward accomplishment", and "to experience stimulation"), three types of extrinsic motivation, and amotivation. In the context of intrinsic motivation, motivation "to learn" refers to a desire for knowledge and performance of activities for internal pleasure, motivation "toward accomplishment" means pleasure in achieving objectives, creativity; motivation "to experience stimulation" expresses the joy of involvement in activities, searching for stimuli, presence of aesthetic experiences and entertainment and excitement (Deci, Ryan, 1985; Vallerand, et al., 1992). Extrinsic motivation includes "external regulation" (behaviour is regulated through rewards and punishment, "introjection" (individuals start to internalize the reasons for their behaviour, but this is not real self-determination as it is limited by internalization of earlier external contingencies) and "identification" (builds on introjection, includes behaviour that individuals consider valuable and important for themselves). Amotivation means that an individual's behaviour is a consequence of forces beyond the individual's control, and feelings of incapacity or incompetence are experienced. In a university environment, these individuals may cease to participate in academic activities (Deci, Ryan, 1985; Vallerand, et al., 1992).

In addition to other psychological concepts such as procrastination (Malatincová, 2015), character (Slezáčková, Bobková, 2014), and ontogenesis (Gottfried, Fleming, Gottfried, 2001), academic motivation was analysed also in relation to demographic characteristics that often appear significant. Some recent studies for example emphasise that intrinsic motivation increases with age (Hegarty, 2010) and that in relation to gender women achieve significantly higher scores compared with men in all motivation subscales except amotivation and external regulation (Hakan, Münire, 2014; Vallerand, et al., 1992).

It appears that the issue of academic motivation is the focus of research studies in relation to student functioning in the academic environment. Despite this fact there are still areas that deserve further exploration. One of the areas is the link between academic motivation and variables relating to the teaching profession, other professions, and basic demographic characteristics.

Methodology

The objective of the study was to analyse academic motivation among university students in relation to selected demographic characteristics. Specifically, the following two research questions were formulated.

Research questions

- 1) What is the relationship between performance motivation and student gender?
- 2) What is the relationship between performance motivation and form¹ of study?
- 3) What is the relationship between performance motivation and type² of study?

¹ Full-time (daily) and part-time (employment) study.



- 4) What is the relationship between academic motivation and age?
- 5) Are there any differences in academic motivation between students without special educational needs and students with special educational needs?

Research methods

The data were obtained by means of the Academic Motivation Scale (AMSC-28, Vallerand, et al., 1992). This is a scale based on the self-determination theory and comprises 28 items divided into 7 subscales assessing 3 types of intrinsic motivation, 3 types of extrinsic motivation, and amotivation. The reliability of the questionnaire reaches an acceptable level of $\omega = .81$ (Vallerand, et al., 1992). Statistical methods applied: t-test, Mann-Whitney U test, Pearson correlation analysis, ANOVA.

Research sample

The research sample consisted of 710 university students (mean age = 22.61, SD = 4.173, range 19-55 years) of whom 116 were male (mean age = 23.34, SD = 3.578, range = 19-42 years) and 594 were female (mean age = 22.47, SD = 4.268, range = 19-55 years). Detailed information about the research sample is shown in Tables 1 and 2.

Table 1. Numbers of respondents by year of study

Year of study	Frequency	%	Cumulat. %
1.	219	30,8	30,8
2.	239	33,7	64,5
3.	8	1,1	65,6
4. / 1. post Bachelor	222	31,3	96,9
5. / 2. post Bachelor	22	3,1	100
Total	710	100	

Table 2. Numbers of respondents by other study characteristics

	Frequency	%	Cumulat. %
Form of study			
full-time	631	88,9	88,9
part-time	79	11,1	100,0
Type of study			
teaching	622	87,6	87,6
non teaching	88	12,4	100,0
Spec. educ. needs			
no	693	97,6	97,6
yes	17	2,4	100,0

The study was conducted in compliance with applicable ethical principles. The research study involved university students on a voluntary basis; the participants were informed about a possibility to terminate their participation at any stage of the research without giving a reason. The participants consented to anonymous data processing and use of data for scientific purposes.

² Teacher training courses (preschool teachers, primary school teachers, lower secondary school teachers, secondary school teachers), non-teaching disciplines (e.g. speech-language pathology, special preschool education, dramatherapy, mentoring, social work, etc.)



Findings

Average values, standard deviations, and reliability of the questionnaire are shown in Table 3.

Table 3. Average values, standard deviations and reliability of the Academic Motivation Scale

		Intrinsic motivation - to know	Intrinsic motivation - toward accomplishment	Intrinsic motivation - to experience stimulation	Extrinsic motivation - identified	Extrinsic motivation - introjected	Extrinsic motivation - external regulation	Amotivation
Entire sample	$\bar{x}$	4,89	3,98	3,40	5,19	4,50	5,09	2,08
	SD	1,23	1,25	1,31	1,14	1,52	1,36	1,20
Men	$\bar{x}$	4,53	3,77	3,33	4,90	4,45	4,92	2,44
	SD	1,33	1,34	1,34	1,27	1,65	1,60	1,48
Women	$\bar{x}$	4,96	4,02	3,41	5,25	4,51	5,12	2,01
	SD	1,20	1,23	1,31	1,10	1,49	1,31	1,12
Full-time study	$\bar{x}$	4,91	4,00	3,42	5,22	4,52	5,10	2,11
	SD	1,24	1,22	1,32	1,14	1,52	1,35	1,21
Part time study	$\bar{x}$	4,72	3,84	3,24	4,96	4,34	4,99	1,83
	SD	1,13	1,43	1,24	1,11	1,49	1,41	1,08
Teaching	$\bar{x}$	4,87	3,95	3,37	5,18	4,49	5,06	2,11
	SD	1,23	1,25	1,31	1,13	1,54	1,37	1,21
Non teaching	$\bar{x}$	5,04	4,15	3,64	5,28	4,59	5,27	1,84
	SD	1,21	1,20	1,28	1,19	1,36	1,31	1,12
α		0,858	0,787	0,839	0,650	0,862	0,802	0,815

Academic motivation and gender

In the context of gender the results showed (Table 4) significant differences in academic motivation between men and women in the following dimensions: intrinsic motivation – to know ($p = .001$, women have a higher score), extrinsic motivation – identified ($p = .003$, women have a higher score), and amotivation ($p = .003$, men have a higher score).

Table 4. t-test of the differences in academic motivation in relation to gender

	t	df	p	Mean Diff.	SE Diff.	95% CI	
						Lower	Upper
Intrinsic motivation - to know	-3,471	708	,001	-,431	,124	-,674	-,187
Intrinsic motivation - toward accomplishment	-1,962	708	,050	-,248	,126	-,496	,000
Intrinsic motivation - to experience stimulation	-,592	708	,554	-,079	,133	-,340	,183
Extrinsic motivation - identified	-3,003	708	,003	-,345	,115	-,570	-,119
Extrinsic motivation - introjected	-,354	153,919	,724	-,058	,165	-,384	,267
Extrinsic motivation - external regulation	-1,312	146,410	,192	-,207	,158	-,520	,105
Amotivation	2,983	141,860	,003	,433	,145	,146	,719



Academic motivation and form of study

As shown in Table 5, no significant differences were observed in the context of form of study (full-time versus part-time).

Table 5. t-test of the differences in academic motivation in relation to form of study

	t	df	p	Mean Diff.	SE Diff.	95% CI	
						Lower	Upper
Intrinsic motivation - to know	1,270	708	,205	,187	,147	-,102	,475
Intrinsic motivation - toward accomplishment	0,917	93	,361	,154	,168	-,180	,488
Intrinsic motivation - to experience stimulation	1,170	708	,242	,183	,156	-,124	,490
Extrinsic motivation - identified	1,888	708	,059	,256	,136	-,010	,522
Extrinsic motivation - introjected	,987	708,000	,324	,178	,181	-,177	,533
Extrinsic motivation - external regulation	0,685	708,000	,494	,111	,162	-,208	,430
Amotivation	1,937	708,000	,053	,276	,143	-,004	,556

Academic motivation and type of study

In the context of type of study (teaching vs. non-teaching courses), significant differences were observed only in amotivation ($p = .047$), with a higher degree of amotivation among students of teaching courses (Table 6).

Table 6. t-test of the differences in academic motivation in relation to type of study

	t	df	p	Mean Diff.	SE Diff.	95% CI	
						Lower	Upper
Intrinsic motivation - to know	-1,238	708	,216	-,174	,140	-,449	,102
Intrinsic motivation - toward accomplishment	-1,381	708	,168	-,196	,142	-,475	,083
Intrinsic motivation - to experience stimulation	-1,876	708	,061	-,280	,149	-,572	,013
Extrinsic motivation - identified	-0,834	708	,405	-,108	,130	-,363	,146
Extrinsic motivation - introjected	-,540	708,000	,589	-,093	,173	-,432	,246
Extrinsic motivation - external regulation	-1,309	708,000	,191	-,203	,155	-,507	,101
Amotivation	1,987	708,000	,047	,270	,136	,003	,538

Academic motivation and age

The results of Pearson correlation analysis confirmed a significant correlation between extrinsic motivation – identified ($r = -.112$, $r^2 = .013$, $p = .003$) and extrinsic motivation – external regulation ($r = -.112$, $r^2 = .013$, $p = .003$). In both cases this is a negative correlation, i.e. with age these two types of motivation decrease (Table 7).

Table 7. Correlation analysis of the relationship between academic motivation and age

1	2	3	4	5	6	7



Age	-,014	-,036	,013	-,112**	-,064	-,112**	-,008

* significant at a level of $\alpha = .05$

Note: 1: Intrinsic motivation – to know, 2: Intrinsic motivation – toward accomplishment, 3: Intrinsic motivation – to experience stimulation, 4: Extrinsic motivation – identified, 5: Extrinsic motivation – introjected, 6: Extrinsic motivation – external regulation, 7: Amotivation

Academic motivation and year of study

An analysis of the differences in academic motivation between various grades showed (Table 8) significant differences between students only in two dimensions. In the context of extrinsic motivation – identified, differences were observed between grade 1 and 2 ($p < .001$) and between grade 1 and 4 ($p = .020$), with grade 1 having a higher score in both cases. In terms of amotivation, differences were observed only between grade 1 and 2 ($p = .004$) and between grade 1 and 4 ($p = .001$), with grade 1 having a higher score in both cases.

Table 8. ANOVA test of differences in academic motivation in the context of grades

	F	df	p
Intrinsic motivation - to know	1,426	4, 705	,224
Intrinsic motivation - toward accomplishment	1,527	4, 705	,193
Intrinsic motivation - to experience stimulation	,075	4, 705	,990
Extrinsic motivation - identified	5,145	4, 705	< ,001
Extrinsic motivation - introjected	,708	4, 705	,587
Extrinsic motivation - external regulation	1,901	4, 705	,109
Amotivation	5,186	4, 705	< ,001

Academic motivation and special educational needs

An analysis of the differences in academic motivation in the context of students' special educational needs showed significant differences in the dimension of extrinsic motivation – identified ($p = .007$), with a lower motivation score in students with special educational needs (Table 9). However, due to the small number of these students a non-parametric method was used and therefore, these results should be interpreted as a possible indicator rather than a stable verification of existing differences.

Table 9. Mann-Whitney U test of the differences in academic motivation in relation to special educational needs

	U	Z	p
Intrinsic motivation - to know	4854,000	-1,243	,214
Intrinsic motivation - toward accomplishment	4894,000	-1,195	,232
Intrinsic motivation - to experience stimulation	5270,500	-,743	,457
Extrinsic motivation - identified	3662,500	-2,674	,007
Extrinsic motivation - introjected	5768,500	-,146	,884
Extrinsic motivation - external regulation	4573,500	-1,579	,114
Amotivation	5639,000	-,305	,761

Results, Conclusions and Recommendations

The objective of the research study was to analyse academic motivation among university students in relation to selected demographic characteristics. Specifically, these included gender, age, and study-related variables (type of study – teaching and non-teaching; form of study – full-time and part-time; grade). The results suggest significant differences in extrinsic and intrinsic motivation in the context of gender. Women show a higher score in intrinsic motivation – to know and in extrinsic motivation – identified. On the contrary, men achieve a higher score in amotivation (Table 4). Similar research studies (Hakan, Munire, 2014) focusing on academic motivation among university students also point to significant differences in relation to gender. University students (men) show a higher degree of amotivation and extrinsic motivation than women. These findings partially support the



conclusions by Vallerand (1992), who states that women achieve significantly higher scores than men in all motivation subtypes except amotivation and external regulation. Therefore, gender appears to be a significant variable that co-determines the source of motivation.

Another aim of the paper was to assess a potential correlation between academic motivation and form and type of study. A significant relationship was observed only in relation to type of study (teaching vs. non-teaching courses), with a higher degree of amotivation among students of teaching courses (Table 6). The question that remained unanswered is why amotivation, which is significantly negatively correlated with the process and results of education and is characterised by the absence of the motive to act, is higher in future teachers. It can only be speculated that faculties of education are more frequently attended by students who are not planning to become teachers, which is likely to increase the degree of their amotivation. Another possible reason could be the fact that for students of teacher training courses this study was a second or third choice after unsuccessful admission proceedings at a different university.

Another objective was to assess the link between academic motivation and **age**. The results of the correlation analysis confirmed a significant correlation between extrinsic motivation – identified and extrinsic motivation – external regulation. In both cases this is a negative correlation, which means that with age these two types of extrinsic motivation decrease (Table 7). Similarly, Hegarty (2000) refers to a correlation between intrinsic and extrinsic motivation and age, where intrinsic motivation increases with age. The conclusions relating to age also confirm a significant correlation between year of study and extrinsic motivation – identified, where students in the first grade show a higher score in this motivation compared with students in grade two and four. The results are interesting in terms of amotivation because they confirmed differences between students of grade one and students of grade two and four. The results suggest increasing amotivation with length of study with a lower amotivation score in grade one. It is likely that in students who show a higher degree of extrinsic motivation at the beginning of study, their degree of amotivation increases throughout their study. Similarly, Hakan and Munire (2014) confirm an increasing trend of the level of amotivation throughout university study (in grade one the degree of amotivation was lower compared with grade four), while intrinsic motivation decreases in the course of academic career. These results are not optimistic taking into consideration the importance of the teaching profession for the education of the upcoming generation. The question is why this happens. Is it due to the difficulty of the study or inappropriate teaching methods? Is the problem in the personality of university teachers or the quality of students? Or is it because students gradually become aware that the teaching profession is difficult and not enjoyable? The increasing level of amotivation in the course of study certainly deserves a more detailed analysis to reveal possible determinants of amotivation among students in higher grades.

Regarding the fact that the number of university students in faculties of education with special educational needs increases (students with health disability, health and social disadvantage), one of the objectives of the present study is to analyse possible differences in academic motivation in the context of special educational needs. The analysis showed significant differences in the dimension of extrinsic motivation – identified ($p = .007$), with a lower motivation score in students with special educational needs (Table 9). In principle, these findings are logical, because students with SEN are “forced” to exert greater effort in their study and have to overcome more obstacles and at the same time have fewer external rewards, or they are less important and therefore less motivating. However, regarding the small number of respondents, the results cannot be generalized but are rather an indicator of possible differences. Regarding the fact however that for these students the study is surely more difficult (Hopkins, 2011), the authors of the present paper believe it is desirable to address this issue in more detail in relation to the current inclusive trends.

One more finding, which appears obvious at first sight, is worth mentioning. The results did not indicate any differences between the variables in terms of intrinsic motivation. In other words, students did not differ in



intrinsic motivation in any of the aspects analysed in the present study. Therefore, intrinsic motivation is very likely saturated by other factors than demographic. This could involve especially personality variables, values, attitudes, self-efficacy, or attribution trends. These are deeper psychological factors as confirmed by the theoretical definition of the differences or intrinsic and extrinsic motivation as such.

In conclusion, it can be stated that academic motivation is affected by many factors. The partial results suggest a degree of variability in the context of gender, age and type of study. It appears that positive academic motivation supports the desire to learn (Brown, 2009), which is considered a crucial aspect in the process of education. However, the degree of amotivation should not be underestimated in the sense of a loss of meaning and desire to study. It is therefore necessary to pay attention to the forms and quality of teaching, university teachers, and possibilities of building and strengthening intrinsic motivation among university students. In this sense, it is desirable to strengthen a positive attitude to education and students' future career. Considerable potential is in the hands of teachers who can affect students' academic motivation to a large extent.

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References

- Atkinson, J. W., Feather, N. T. (1966) *A theory of achievement motivation*. New York: Wiley.
- Brown, N. B. (2009) Academics motivation. Strategies for Students. *National Association of School Psychologists*, 38(1), 1-4.
- Deci, E. L., Koestner, R., Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, 125(6), 627–668.
- Deci, E. L., Ryan, R. M. (1985). *Intrinsic motivation and Self-Determination in Human Behavior*. New York: Plenum.
- Deci, E. L., Ryan, R. M. (2000). The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, 11(4), 227- 268.
- Deci, E. L., Ryan, R. M. (2002). *Handbook of self-determination research*. Rochester, UK: University of Rochester Press.
- Deci, E. L., Ryan, R. M. (2008). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology*, 49(1), 14–23.
- Gottfried, A. E., Fleming, J. S., Gottfried, A. W. (2001). Continuity of academic intrinsic motivation from childhood through late adolescence: A longitudinal study. *Journal of Educational Psychology*, 93, 3-13. doi:10.1037/0022-0663.93.1.3
- Hakan, K., Munire, E. (2014). Academic Motivation: Gender, Domain and Grade Differences. *Social a Behavioral Sciences*, 143, 708-715.
- Hegarty, N. (2010). Application of the Academic Motivation Scale to Graduate School Students. *The Journal of Human Resource and Adult Learning*, 6(2), 48–56.
- Hopkins, L. (2011). The path of least resistance: a voice-relational analysis of disabled students' experiences of discrimination in English universities. *International Journal of Inclusive Education*, 15(7), 711–727.
- Malatincova, T. (2015). The Mystery of “Should”: Procrastination, Delay, and Reactance in Academic Settings. *Personality and Individual Differences*, 72, 52–58.
- Murtonen, M., Olkinuora, E., Tynjälä, P., Lehtinen, E. (2008). ”Do I Need Research Skills in Working Life?” University Students' Motivation and Difficulties in Quantitative Method Courses. *Higher Education*, 56, 599-612.
- Nakonečný, M. (2015). *Motivace a chování*. Praha: Triton.



- Ormond, J. E. (2003). *Educational Psychology: Developing Learners* (Fourth Ed.). New Jersey: Merrill Prentice Hall.
- Paulsen, M. B., Feldman, K. A. (2005). The Conditional and Interaction Effects of Epistemological Beliefs on the Self-Regulated Learning of College Students: Motivational Strategies. *Research in Higher Education*, 46(7), 731-768.
- Slezáčková, A., Bobková, V. (2014). Silné stránky charakteru ve vztahu k optimálnímu prospívání českých vysokoškolských studentů. *Annales psychologici*, 02, 24-39.
- Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Senécal, C. B., É, F. Vallières (1992). The Academic Motivation Scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement*, 52(4), 1003-1017.
- Wentzel, K. R. (1999). Social-motivational processes and interpersonal relationships: Implications for understanding students' academic success. *Journal of Educational Psychology*, 91, 76-97. doi:10.1037/0022-0663.91.1.76



The Correlation between Learning Approaches and Academic Achievement in University Students

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Abstract

The aim of this study was to analyse the relationships between learning approaches and academic achievement. The data were obtained by means of two questionnaires: the Revised Two Factor Study Process Questionnaire (R-SPQ-2F) and the Academic Achievement Questionnaire (AAQ). The research sample consisted of 710 university students (mean age = 22.61, SD = 4.173, range 19-55 years) of whom 116 were male (mean age = 23.34, SD = 3.578, range = 19-42) and 594 were female (mean age = 22.47, SD = 4.268, range = 19-55). The results suggested that the total score of academic achievement and subscale scores were positively correlated with the deep approach and its subcomponents, and negatively correlated with the surface approach and its subcomponents. The demographic and study characteristics of the participants (gender, study year, type and form of study, and special educational needs) do not affect the relationship between learning approaches and academic achievement.

Keywords: learning approaches, academic achievement, university students, learning, teaching

Introduction

Academic achievement is a key concept in the academic environment and is used to assess not only students' results but also the results of universities as a whole (Farooq, Chaudhry, Shafiq, & Berhanu, 2011; Křeménková, Dobešová Cakirpaloglu, Pugnerová, 2018). It can be said in a simplified way that academic achievement is a mark of success and excellence. There are many ways of describing this phenomenon. Academic achievement is mostly related to GPA (grade point average) and study results in general (cf. academic performance; e.g. Gore, 2006; Stephen & Schaben, 2002). But many authors also accentuate both learning and non-learning or non-performance aspects (e.g. study effectiveness, time management, involvement in extra-curricular activities, taking advantage of external resources; use of university library and its services, awareness of ICT instruments to support study etc.) (Čáp & Mareš, 2001; Novotný, Křeménková, in preparation; Křeménková, Dobešová Cakirpaloglu, Pugnerová, 2018; Leonard, & Insch, 2005; Prevatt, Li, Welles, Festa-Dreher, Yelland, & Lee, 2011; Somech & Bogler, 1999). Finally, academic achievement could be described as the presence and use of various personal skills and traits, and also as the ability to cope with various study requirements (Busato, Prins, Elshout, & Hamaker, 2000; Komarraju, Karau, & Schmeck, 2009). At the same time it should be noted that this is not a final and invariable complex of skills and activities. On the contrary, it may be developed and supported throughout the course of study in the university environment (Hoskovcová, Suchochlebová, & Ryntová, 2009; Průcha, Mareš, & Walterová, 2003). The question is to what extent this really takes place and what reserves



universities have in this respect. However, academic achievement is not a stand-alone construct but is associated with and affected by many factors and variables such as personality, motivation, cognitive styles, decision-making processes, and learning styles or approaches.

In the context of academic achievement **learning approaches** play an important role. Learning approaches could be defined a) as a philosophical concept and the didactic method of teaching and learning strategies; this includes the learning objectives that comprise furthering knowledge, repetition and reconstruction, application, understanding, observation from a different perspective etc. (Dart, Burnett, Purdie, Boulton-Lewis, Campbell, & Smith, 2000); b) in terms of “how a student’s intentions, behaviour and study habits change according to their perceptions of a learning task” (Beyaztaş, Senemoğlu, 2015, p. 193); c) “as the complex manner in which, and conditions under which, learners most effectively perceive, process, store, and recall what they are attempting to learn” (James, Gardner, 1995, p. 20); or d) one of the factors causing differences in the student’s performance (Kaplan, Kies, 1995).

There are several methods available to measure learning approaches¹. We are convinced that The Revised Two Factor Study Process (R-SPQ-2F; Biggs, Kember, & Leung, 2001) suits the academic environment. This measurement tool is based on the “student approaches to learning” (SAL) theory (Biggs, 1993²), which assumes that students’ perceptions and learning-related activities are fundamental to teaching and learning. Further study processes used by students in learning are related not only to the amount of learning but also to the quality of learning (Biggs, 1993, 2007). Biggs suggested the existence of distinct study processes, which have been identified as deep and surface approaches to learning (Entwistle, 1998). The surface approach could be defined as an intention or effort to get the task out of the way with minimum problems and give the impression that the requirements have been fulfilled at the same time. This is connected with learning of isolated facts, misunderstanding the big picture, and of course with negative feelings. The deep approach means that students need to engage in the task in a comprehensive and meaningful way. Students with this approach feel need-to-know and they try to focus on underlying meanings, on main ideas, principles, or successful applications. This requires a substantial base of prior knowledge, so it places demands on learning the details and making sure they understand the main point. Students with this approach experience positive feelings during the learning process (Biggs, 2007). In order to improve the quality of students’ learning, it is fundamental to understand the learning process. Unfortunately, some lecturers at universities fail to identify specific learning styles or approaches of their students and adjust the learning environment accordingly. Nowadays, more than in the last decades, it may be relevant to recognise the different learning and thinking styles of students. Therefore, there is a need to perform a study on student learning approaches in order to improve teaching and learning quality (Amir, Jelas, Rahman, 2001; Sternberg, 1997).

In foreign countries, the correlation between academic achievement and learning approaches is extensively researched, but the results are not convincing and usually confirm a negative correlation between academic achievement and surface approach (e.g. Amidu, 2012; Cano 2005; Hasnor, Ahmad, Nordin, 2012; Watkins, 2001), or no correlation is confirmed (e.g. Phan, 2007). In the context of Czech universities, the relationships between these two constructs have not been sufficiently explored and the effect of learning approaches on

¹ To make it clear, we have to distinguish between learning styles and learning approaches. Briefly, the main point in this context is that learning styles are something that we can hardly change, in contrast to learning approaches, which are relatively “easy” to change (Biggs, 2007). In other words, while learning styles are relatively stable characteristics comprising cognitive, affective and physiological components, learning approaches are not (Baykan, Nacar, 2007; Rajaratnam, D’cruz, 2016). On the other hand, there is an association between these concepts, as learning approaches are linked with and affected by learning strengths, also known as learning styles (Swanson, 1995).

² Originally, this concept comes from a study by the Swedish authors Marton and Säljö (1976), who researched surface and deep approaches to learning.



academic achievement is still insufficiently reflected in education and counselling. One of the causes may be the absence of relevant studies and insufficient communication of this topic.

Methodology

The aim of the study was to analyse the relationships between learning approaches and academic achievement. The researchers focused on which factors of learning approaches were associated with individual domains of academic achievement, in what ways they related to academic achievement, and whether these associations were somehow affected or mediated by students' demographic characteristics (see below).

Research sample

The research sample consisted of 710 university students (mean age = 22.61, SD = 4.173, range 19-55 years) of whom 116 were male (mean age = 23.34, SD = 3.578, range = 19-42 years) and 594 were female (mean age = 22.47, SD = 4.268, range = 19-55 years). For more details about the research sample see Tables 1 and 2.

Table 1. Numbers of respondents by year of study

Year of study	Frequency	%	Cumulat. %
1.	219	30,8	30,8
2.	239	33,7	64,5
3.	8	1,1	65,6
4. / 1. post Bachelor	222	31,3	96,9
5. / 2. post Bachelor	22	3,1	100
Total	710	100	

Table 2. Numbers of respondents by other study characteristics

	Frequency	%	Cumulat. %
Form of study			
full-time	631	88,9	88,9
part-time	79	11,1	100,0
Type of study			
teaching ³	622	87,6	87,6
non teaching	88	12,4	100,0
Spec. educ. Needs			
no	693	97,6	97,6
yes	17	2,4	100,0

The study was conducted in compliance with applicable ethical principles. The research study involved university students on a voluntary basis; the participants were informed about a possibility to terminate their participation at any stage of the research without giving a reason. The participants consented to anonymous data processing and use of data for scientific purposes.

Research methods and statistical procedures

³ Teacher training courses (preschool teachers, primary school teachers, lower secondary school teachers, secondary school teachers), non-teaching disciplines (e.g. speech-language pathology, special preschool education, dramatherapy, mentoring, social work, etc.)



The data were obtained by means of the following two questionnaires. **The Academic Achievement Questionnaire** (AAQ, Novotný & Křeménková, in preparation) is a new 9-item questionnaire designed to measure academic achievement. The questionnaire includes three subscales: study performance, coping with study demands, and social adaptation. The items of the second and third subscale are assessed using a Likert scale 1-5, the first subscale is calculated from marks achieved in the course of study. The subscale scores and the overall score are calculated using average values of the items; for the first subscale (in Czech conditions) the average score is calculated based on weighted scores of the items including range normalization. The reliability of the questionnaire subscales equals $\omega = .801$, $.810$ and $.638$.

The Revised Two Factor Study Process Questionnaire (R-SPQ-2F; Biggs, Kember, & Leung, 2001) uses four subscales (Deep Motive, Deep Strategy, Surface Motive and Surface Strategy) and two higher order factors (Deep Approach and Surface Approach) to differentiate the preferences of learning approaches. The questionnaire uses 20 items on a 5-point Likert scale. The current version of the questionnaire has good psychometric properties. The questionnaire reliability is of an acceptable level: $\omega = 0.73$ for deep approach and $\omega = 0.64$ for surface approach.

Statistical procedures applied: The data were analysed in SPSS 21 using descriptive statistics calculation, correlation analysis, and multiple linear regression (Stepwise method). The assumptions for use were verified in advance.

Findings

Means and standard deviations for the scales are shown in Table 3.

Table 3. Average, standard deviation and reliability for each scale

	$\bar{x}$	SD	α
AAQ total	3,75	0,51	0,708
AAQ study performance	4,67	0,75	0,741
AAQ study demands	3,42	0,75	0,721
AAQ social adaptation	3,89	0,82	0,446
Deep Motive	13,88	3,55	0,700
Deep Strategy	13,59	3,58	0,725
Surface Motive	12,63	3,65	0,700
Surface Strategy	13,86	3,74	0,679
Deep Approach	27,47	6,56	0,829
Surface Approach	26,49	6,88	0,823

The initial correlation analysis confirmed the assumed association between the preferred learning approach and academic achievement. Higher academic achievement in terms of the overall score as well as individual subscales is positively correlated with deep strategies and learning approaches, and negatively correlated with surface approaches (Tab. 4).

Table 4. Correlation between learning approaches and academic achievement

	Acad.achiev.: total score	Acad.achiev.: study performance	Acad.achiev.: study demands	Acad.achiev.: social adaptation
Deep Motive	,276**	,162**	,247**	,168**
Deep Strategy	,275**	,196**	,249**	,139**
Surface Motive	-,283**	-,155**	-,247**	-,186**
Surface Strategy	-,289**	-,190**	-,254**	-,164**
Deep Approach	,299**	,194**	,269**	,167**



Surface Approach	-,307**	-,186**	-,269**	-,188**

** significant at a level of $\alpha = .01$

* significant at a level of $\alpha = .05$

The subsequent multiple regression analyses confirmed and particularized these findings (the regression models included only lower factors, i.e. higher order variables such as surface approach and deep approach were not included in the models). In the context of the overall academic achievement score (Table 5) the model ($F(3, 706) = 32.496, p < .001$) explained 12% of variability of the dependent variable ($\text{Adj. } R^2 = .118$).

Table 5. Multiple regression analysis of the correlation between learning approaches and overall score of academic achievement

	R^2	Adj. R^2	change R^2	β	t	p
	,121	,118				
Surface Strategy			,083	-,197	-5,053	< ,001
Deep Motive			,032	,126	2,546	,011
Deep Strategy			,006	,108	2,151	,032

The model was affected by three predictors: lower surface strategy ($p < .001$), higher deep motive ($p < .001$), and higher deep strategy ($p < .001$) were significantly correlated with higher overall academic achievement. Other factors were excluded from the model.

In terms of study performance (Tab. 6) the model ($F(2, 707) = 19.851, p < .001$) explained 5% of variability of the dependent variable ($\text{Adj. } R^2 = .050$).

Table 6. Multiple regression analysis of the correlation between learning approaches and academic achievement: study performance

	R^2	Adj. R^2	change R^2	β	t	p
	,053	,050				
Deep Strategy			,038	,143	3,566	< ,001
Surface Strategy			,015	-,133	-3,313	,001

The model was affected by two predictors: higher deep strategy ($p < .001$) and lower surface strategy ($p = .001$) were significantly correlated with better study performance. Other factors were excluded from the model.

In terms of coping with study requirements (Tab. 7) the model ($F(3, 706) = 25.035, p < .001$) explained 9% of variability of the dependent variable ($\text{Adj. } R^2 = .092$).

Table 7. Multiple regression analysis of the correlation between learning approaches and academic achievement: coping with study requirements

	R^2	Adj. R^2	change R^2	β	t	p
	,096	,092				
Surface Strategy			,064	-,170	-4,300	< ,001
Deep Motive			,026	,111	2,199	,028
Deep Strategy			,005	,103	2,031	,043

The model was affected by three predictors: lower surface strategy ($p < .001$), higher deep motive ($p = .028$), and higher deep strategy ($p = .043$) were significantly correlated with better coping with study requirements. Other factors were excluded from the model.

In the context of social adaptation (Tab. 8) the model ($F(2, 707) = 16.149, p < .001$) explained 4% of variability of the dependent variable ($\text{Adj. } R^2 = .041$).



Table 8. Multiple regression analysis of the correlation between learning approaches and academic achievement:
social adaptation.

	R²	Adj. R²	change R²	β	t	p
	,044	,041				
Surface Motive			,034	-,139	-3,383	,001
Deep Motive			,009	,107	2,611	,009

The model was affected by two predictors: lower surface motive ($p = .001$) and higher deep motive ($p = .009$) were significantly correlated with better social adaptation. Other factors were excluded from the model.

Partial correlations suggest that the respondents' demographic and study characteristics (gender, year of study, type of study, field of study, and special educational needs) do not affect the correlation between learning approaches and academic achievement (the differences in r values were in the order of hundredths, which did not require verification of the significance of differences using the Fisher transformation and inference test).

Results, Conclusions and Recommendations

The objective of the survey was to identify the correlations between academic achievement and preferred learning approaches. By means of the initial correlation analysis it was observed that higher academic achievement in terms of the overall score as well as individual subscales was positively correlated with deep strategies and learning approaches, and negatively correlated with surface approaches. A negative correlation between academic achievement and surface approaches to learning was also confirmed in their studies by e.g. Amidu (2012), Cano (2005), Hasnor, Ahmad, Nordin (2012), or Watkins (2001). On the contrary, for example Phan (2007) suggested that the correlation between these phenomena was not so obvious and in his study observed a null correlation between academic achievement and deep or surface approaches to learning. The present results of multiple regression analyses partially correspond with the former studies in the sense that the model predicted 12% of variance of the overall score of academic achievement. In this context it can be assumed that the overall academic achievement is affected by a range of other variables/effects. Nevertheless, the results confirm the original assumption that motivation, an effort to understand, and interest in the learning content contribute to better academic results as well as other factors of academic achievement, which is a positive finding. On the other hand, this contribution is not as high as might be expected. In this context it should be borne in mind that the overall score of academic achievement includes not only study performance but also other aspects (organizational and social) that are seemingly little affected by learning approaches. However, more detailed results of the regression analysis concerned with the different aspects of academic achievement suggest the strongest correlation between learning approaches and coping with study requirements (so-called organizational factors). Although this finding is surprising at first sight, it is logical because students with deep approaches to learning experience their study through positive emotions and their study is not a priori burdensome, which may result in their ability to better cope with the circumstances related to their study (e.g. organization of study, scheduling exams, involvement in other study-related activities, field of study, etc.)

Simultaneously, the results raise a question as to whether the system of education and assessment in Czech universities favours those students who really try to understand the learning content compared with those who only learn as instructed and are limited to partial facts without trying to achieve a deep understanding.

At the same time, the results did not show any correlations in the context of students' demographics and study characteristics (gender, year of study, etc.) In other words, the respondents' demographics did not affect the correlation between academic achievement and learning approaches. It seems that this correlation is not effected by the respondents' external characteristics but on the contrary is very probably affected by internal



characteristic. Conversely, for example Staden and Nel (2016) proved a significant difference in the context of year of study.

The present study has some limitations. The first limitation is the research sample, which consists of a specific group of university students of education. This study specialization (in the context of the Czech Republic) expects a higher pro-social orientation and an emphasis on verbal and social intelligence rather than non-verbal and technical aspects. Teacher education (specialization) is also sometimes taken as the second (“safe”) choice (in comparison with the desired field of study), leading to higher numbers of students with a tendency to low study performance and surface approaches to learning. The second limitation is the cross-sectional nature of the study, which does not allow assessment of the interactions between variables in time. Therefore, the results should be interpreted in the context of these specifics.

In conclusion, the main result of this study will be highlighted. The findings have clearly confirmed the correlation between learning approaches and academic achievement. These findings are of significant importance especially in the context of this specific research sample. For this reason, it is necessary to accentuate and improve university training of future teachers and other professionals in the school environment in the sense of learning about and improving deep approaches to learning. At the same time, other ways to support academic achievement should be sought.

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References

- Amidu, A.-R. (2012). Exploring Real Estate Students’ Learning Approaches, Reflective Thinking and Academic Performance. In T. Sulbaran (Ed.), *48th ASC Annual International Conference Proceedings*. Birmingham, UK: Birmingham City University. Retrieved from <http://ascpro0.ascweb.org/archives/cd/2012/paper/CEUE214002012.pdf>
- Amir, R., Jelas, Z. M., & Rahman, S. (2001). Learning Styles of University Students: Implications for Teaching and Learning. *World Applied Sciences Journal* (Special Issue of Innovation and Pedagogy for Diverse Learners), 14, 22-26.
- Baykan Z, Nacar, M. (2007). Learning styles of first-year dental students attending Erciyes University in Kayseri, Turkey. *Advances in Physiology Education*, 31, 158-160.
- Beyaztaş, D. I., Senemoğlu, N. (2015). Learning Approaches of Successful Students and Factors Affecting Their Learning Approaches. *Education and Science*, 40(179), 193-2016.
- Biggs, J. B. (1993). What do inventories of students' learning processes really measure? A theoretical review and clarification. *British Journal of Educational Psychology*, 63, 1-17.
- Biggs, J. B. (2007). *Teaching for quality learning at university*. Berkshire: SRHE and Open University Press.
- Biggs, J. B., Kember, D., & Leung, D. Y. P. (2001). The Revised Two Factor Study Process Questionnaire: R-SPQ-2F. *British Journal of Educational Psychology*, 71, 133-149.
- Busato, V. V., Prins, F. J., Elshout, J. J., & Hamaker, C. (2000). Intellectual ability, learning style, personality, achievement motivation and academic success of psychology students in higher education. *Personality and Individual differences*, 29(6), 1057-1068.
- Cano, F. (2005). Epistemological beliefs and approaches to learning: Their change through secondary school and their influence on academic performance. *British Journal of Educational Psychology*, 75, 203-221.
- Čáp, J., Mareš, J. (2001). *Psychologie pro učitele*. Praha: Portál.



- Dart, B. C., Burnett, P. C., Purdie, N., Boulton-Lewis, G., Campbell, J. Smith, D. (2000). Students' conceptions of learning, the classroom environment, and approaches to learning. *The Journal of Educational Research*, 93(4), 262-270.
- Entwistle, N. (1998). Approaches to learning and forms of understanding. In B. Dart & G. Boulton-Lewis (Eds.), *Teaching and learning in higher education: From theory to practice*. Melbourne: Australian Council for Educational Research.
- Farooq, M. S., Chaudhry, A. H., Shafiq, M., Berhanu, G. (2011). Factors affecting students' quality of academic performance: A case of secondary school level. *Journal of Quality and Technology Management*, 7, 1-14.
- Gore, P. A. (2006). Academic Self-Efficacy as a Predictor of College Outcomes: Two Incremental Validity Studies. *Journal of Career Assessment*, 14(1), 92-115. <https://doi.org/10.1177/1069072705281367>
- Hasnor, H. N., Ahmad, Z., Nordin, N. (2013). The Relationship Between Learning Approaches And Academic Achievement Among Intec Students, Uitm Shah Alam. *Procedia - Social and Behavioral Sciences* 90, 178-186.
- Hoskovcová, S. H., Ryntová, L. S. (2009). *Výchova k psychické odolnosti dítěte*. Praha: Grada Publishing as. ISBN 978-80-247-2206-1.
- James, W. B., Gardner, D. L. (1995). Learning styles: Implications for distance learning. *New Directions for Adult Continuing Education*, 67, 19-32.
- Kaplan, E. J., Kies, D. A. (1995). Teaching styles and learning styles: which came first? *Journal of Instructional Psychology*, 22, 29-33.
- Komaraju, M., Karau, S. J., Schmeck, R. R. (2009). Role of the Big Five personality traits in predicting college students' academic motivation and achievement. *Learning and individual differences*, 19(1), 47-52.
- Křeménková, L., Dobešová Cakirpaloglu, S., & Pugnerová, M. (2018). Analysis of social competences in relation to academic achievement among university students of teacher training courses. In O. Titrek, A. Zembrzuska, & G. Sezen-Gultekin (eds.), *4th International Conference on Lifelong Education and Leadership for all* (pp. 462-470). Sakarya: ICLEL.
- Leonard, N., Insch, G. S. (2005). Tacit knowledge in academia: A proposed model and measurement scale. *The Journal of Psychology*, 139(6), 495-512.
- Marton, F., Säljö, R. (1976). On qualitative differences in learning – I: outcome and process. *British Journal of Educational Psychology*, 46, 4–11.
- Novotný, J. S., Křeménková, L. (in preparation). New measure of academic achievement: testing reliability and factor structure of AAQ.
- Phan (2007). Examination of Student Learning Approaches, Reflective Thinking, and Self-Efficacy Belief at the University of the South Pacific: A Path Analysis, *Educational Psychology*, 27(6), 789-806.
- Prevatt, F., Li, H., Welles, T., Festa-Dreher, D., Yelland, S., & Lee, J. (2011). The Academic Success Inventory for College Students: Scale Development and Practical Implications for Use with Students. *Journal of College Admission*, 211, 26-31.
- Průcha, J., Mareš, J., Walterova, E. (2003). *Pedagogický slovník*. Praha: Portal, 2003.
- Rajaratnam, D'cruz, (2016). Learning styles and learning approaches - Are they different? *Education for Health*, 29(1), 59-60.
- Somech, A., Bogler, R. (1999). Tacit knowledge in academia: Its effects on student learning and achievement. *The journal of psychology*, 133(6), 605-616.
- Staden, L., Nel, C. (2016). Leerbenaderings en akademiese prestasie van EBW-onderwysstudente. *Tydskrif vir Geesteswetenskappe, Jaargang* 56(4-2), 1227-1244.
- Sternberg, R. J. (1997). *Thinking styles*. New York: Cambridge University Press.
- Stephen, S. L., Schaben, L. A. (2002). The Effect of interscholastic sports participation on academic achievement of middle level school students. *NASSP Bulletin*, 86(630), 34-41.



- Swanson, L. J. (1995). Learning styles: A review of the literature. USA: Office of Educational Research and Improvement, U.S. Department of Educational Research and Development.
<http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED387067>
- Watkins, D. (2001). Correlates of approaches to learning: A cross-cultural meta-analysis. In R. J. Sternberg & L.-f. Zhang (Eds.), *The educational psychology series. Perspectives on thinking, learning, and cognitive styles* (pp. 165-195). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.



Enhancing Education for Smart Cities: Evidence from Omani Higher Education Institutions

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Abstract

The focus of this paper is to examine the interrelated influences of service delivery in institutions of higher education (HEIs) in Oman to advance sustainable education for smart cities. An important objective of this study is the evaluation of the pertinent educational curriculums and programs used by HEIs in Oman to stimulate and develop the sustainability of the smart city approach. Researchers intend to adopt aspects of the triple helix model, which have been used as an analytical framework to analyse the knowledge-based innovation systems in HEIs. Data is collected from stakeholders in HEIs through structured and semi-structured interviews, and questionnaires combined with statistical trends from officially published reports. Data analysis will keep with Lombardi et al., (2012) methodology and the employment of Stata software will help in the examination of correlation between variables. The study contributes to the debate on HEIs' role in smart city initiatives and has implications to their part in advancing higher education for the development of smart city initiatives in the region, which is an evolving concept that requiring ample investigation to further our understanding of it especially in developing countries.

Keywords: Sustainable education, smart city, institutions of higher education, technology, innovation

Introduction

Education has been revolutionized by technology and so higher education institutions (HEIs) must create a richer and inspiring experience in learning is crucial. HEIs need to know their position for them to benefit fully from current smart methods in education like social learning and networks as well as game-based learning. The current paper examines the educational setting in Omani HEIs as part of the smart city ecosystem. The study includes smart learning initiatives already in place and vital components of the curriculum that nurtures innovation among its alumnae, which is anticipated to have strategic consequences for the country, which is in the process of endorsing a smart learning education configuration. The smart city approach in Oman is still budding and there is a strong need to support this ecosystem. Some of the most important concepts relating to teaching are innovation, smart technology, and industrial innovation that power sustainability and these must be addressed for next students generation (Wolff, Kortuem, & Cavero, 2015).

Studies in the fields of smart cities have widely emphasized the positive impact of a smart city to “ tackle urban sustainability issue ” (Wolff et al., 2015; p.2), and the role of higher education institutions on stimulating and promoting innovation and smart cities. Meijer & Bolívar (2016) stated that “Smart technologies, smart collaboration, a highly educated population, and effective institutions are argued to be needed to face the challenges of modern cities” (p.393). Education has been widely discussed in the literature as one of the significant elements for the development of the necessary human capital as well as technological infrastructures for a smart city (Caragliu, Del Bo, & Nijkamp, 2011; Hollands, 2008; Meijer & Bolívar, 2016). Promoting



centres for a smart city at HEIs is important to develop the smart cities so that students can play their active and innovative roles in smart city initiatives (Winters, 2011). In that sense, the debate in the literature continues regarding either building the human capital first or the necessary technology (Nam & Pardo, 2011). The 2020 Europe strategy has focused on education, research and innovation areas as major factors in the promotion of smart cities (Cocchia, 2014).

Two clear gaps in the arena of smart city education inspire the present study. First, a few studies have been done in developing countries that explored education as the main player in stimulating smart city initiatives. This is in spite of the shared view that “a smart city is a humane city that has multiple opportunities to exploit its human potential and lead a creative life” (Nam & Pardo, 2011, p. 285). Though there are many instances from advanced economies, evidence of the influence of HEIs on supporting students to be more creative, innovative and able to create applications on smart city initiatives in developing economies continue to be rare (Fadaeenejad et al., 2014). Second, little answers are available in the literature that focuses on the part played by HEIs in developing countries and their sustainable education for smart cities (Liu, Huang, & Wosinski, 2017). Most studies focused on guesstimating the development of smart cities without observing the main factors that promote improved life in smart cities, which is mostly due to people (Winters, 2011).

The aim of this research is to review the relevant educational curriculums, activities, and programs used in Omani HEIs to encourage and advance the sustainability of the smart city ecosystem. Several studies suggest that people, education systems, learning, and knowledge or what they call “human dimensions” are the key aspects for smart cities approach (Cocchia, 2014). Furthermore, our study sheds light on the effectiveness of these HEIs education methods and strategies that are used to develop this concept, mostly among undergraduate students in Oman. A literature review indicated that such insights are still scarce especially with when it comes to developing countries.

Consequently, the present research aims mainly to contribute to the debate on smart city education at HEIs. This is because smart city education in developing regions is a budding notion and requires more research to advance our understanding of what it takes to build smart cities in the region. The study delivers thorough indications and analyses of the smart education situation in Omani universities and colleges, the effectiveness of curriculums, activities and programs used by HEIs in Oman to kindle and endorse the smart city approach through improved preparation of its graduates giving them the tools, settings and network to actively participate in the smart city movement. The study contains smart learning initiatives now in place that are anticipated to have strategic implications for the country. The second contribution of the research lies in the examination and confirmation of the triple helix model as an analytical framework for gauging the capabilities of HEIs in Oman. The end goal of this being to help decision makers strive for as well as cultivate the creativity and smart education necessary for building the human capital to promote the smart city approach.

To conclude this section, education has been revolutionized by technology and so HEIs must create a richer learning experience for its constituents. In turn, smart learning initiatives can have a vital role in nurturing innovation in and preparing alumnae for smart city initiatives. The smart city approach in Oman is still budding and there is a strong need to support this ecosystem. Some of the most important concepts with this regard are the fostering of innovation and smart technology that power sustainability and the current study hopes to address this gap by in the preparation of the next generation of students. (Wolff, Kortuem, & Caverio, 2015). With that respect, the role of HEIs in stimulating and promoting innovation and smart city initiatives is undeniable (Meijer & Bolívar, 2016). Moreover, a few studies have been done in developing countries that explored education as the main player in stimulating smart city initiatives. Little answers are available in the literature that focuses on the part played by HEIs in developing countries and their sustainable education for smart cities (Liu, Huang, & Wosinski, 2017). Most studies focused on guesstimating the development of smart cities without observing the



main factors that promote improved life in smart cities, which is mostly due to people (Winters, 2011). Finally, building on the grounds put forth in the above, this study aims at answering the following four main research questions:

1. What are the applicable curriculums and programs used by HEIs in Oman that can support and help in the development of a smart city in Oman?
2. Does the education system in Omani HEIs effectively support the development of smart city initiative?
3. What are the recommended methods to promote the interest of smart city approach among students?
4. Do Omani HEIs have the capabilities to strive and nurture a creative environment for smart city initiatives?

Furthermore, from the mentioned analysis the following study objectives emerged:

- I. Explore the impact of service delivery in Omani HEIs to develop sustainable education for smart cities.
- II. Adopt aspects of the triple helix model (Etzkowitz, 2008) that can be employed to analyze the knowledge-based innovation systems in HEIs.

Method

The smart city concept is made up of 'smart people' features and the level of educational services afforded that is fundamental to 'urban growth' and sustainable development (Winters, 2011). The present research project explores the relationship between the ability of Omani HEIs to implement smart education systems to develop human capital to its citizens and prepare them in the best way for smart city initiatives (Bătağan & Boja, 2012).

In the current study, researchers implement aspects of the triple helix framework to analyse the knowledge-based innovation systems (Lombardi, Giordano, Farouh, & Yousef, 2012). In a recent paper, Etzkowitz (2008) stressed that the move towards a knowledge-based society has given universities a bigger role to play. In fact, the role of universities as originators of knowledge has become more valuable since innovation is increasingly based on science. Consequently, university, industry, and government have very equal responsibilities that it's not just one specific component that is necessarily the impetus of the triple helix model of innovation. For this reason, the increased potential role played by universities for smart city initiatives is being suggested particularly with regard to how technology transfer offices were set up by universities to promote the transformation of university research from commercial value to actual commercial goods.

To conclude this section, the methodology followed by researchers in the present work includes conducting structure and semi-structured interviews and discussions with relevant focus groups comprising of various stakeholders from the Omani HEIs including individuals in management, professional and decision making positions (public and private). Further, questionnaires are distributed to selected samples of the population such as students, academic and professional staff in HEIs in Oman (public and private). All this will be backed up by statistical trends and observations by policy makers and officially published reports.

Findings

The current study has HEIs performance in delivering smart sustainable education as the dependent variable estimated using five main categories that are based on the triple helix model. The research framework shows the proposed antecedents to HEIs performance with regard to smart city initiatives (Figure 1). These five categories are:

- 1) Smart Governance (related to participation)
- 2) Smart Economy (related to competitiveness)
- 3) Smart Human Capital Indicators (related to people)
- 4) Smart Living (related to the quality of life)



5) Smart Environment (related to natural resources)

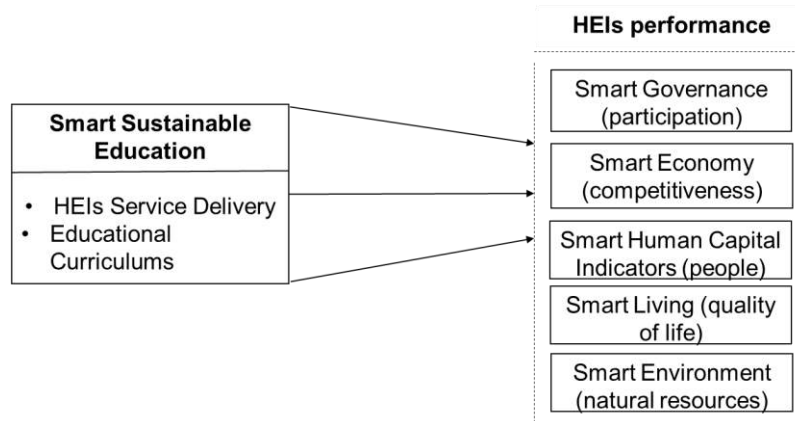


Figure 1. Research Framework

For the purpose of this study, an empirical examination requires the operationalization of the following variables and connecting them to the five main categories above in the triple helix model factors that are assessed in Omani HEIs (Caragliu et al., 2011; Hall et al., 2000; Lee & Hancock, 2012; Neirotti, De Marco, Cagliano, Mangano, & Scorrano, 2014):

1. Campus investment in infrastructures and building intelligence sustainability like building smart applications, network, smart access, data usage, using digital education (e.g. interactive whiteboards, e-learning systems), and smart green services, etc.
2. Investing in human capital by attracting talents and academics as well as collaborative partnerships
3. Students' awareness of smart city concepts in terms of curriculums, workshops, creative classes, and participating in local and international competitions.
4. Smart city governance by using prototypes to oversee smart city traditions.

Finally, data analysis will keep with the methodology employed by Lombardi et al., (2012) and software such as Stata to investigate the correlation between variables. For the time being, data will be collected from several sources including:

1. Conducting structure interview with top management, professional and decision makers at some selected HEIs in Oman (public and private). In addition to structured and semi-structured interviews, researchers need to use focus groups to gather important ideas and viewpoints from relevant stakeholders in HEIs, government, and industry on how to improve educational programs for smart city initiatives.
2. Distribution of a questionnaire from selected focus groups such as students, academic and other professionals in some selected HEIs in Oman (public and private).
3. Observing statistical trends from officially published reports

Conclusion

The primary contribution of the current paper with broad implications is a more profound understanding of the best practices that are implemented in HEI and what particular role they play in the development of smart city initiatives. This work attempts to examine the influences of service delivery in HEIs on the development of sustainable education for smart cities in Oman. The study reviews the relevant educational curriculums, activities, and programs used by HEIs that are needed to stimulate and develop the sustainability of smart city initiatives. Researchers adopt aspects of the triple helix model, which have been used as an analytical framework to analyse the knowledge-based innovation mechanisms in HEIs. Data collected from various stakeholders in



HEIs through structured interviews, and questionnaires and statistical trends collected from official published reports can reveal considerable information about the HEI effectiveness in that regard. The study contributes to the debate of HEIs' role in smart city initiatives and has implications to their role in education for smart city initiatives developing in the region, which is an emerging concept that demands more research to improve our understanding particularly in developing countries.

In conclusion, to narrow down the scope of the current paper, researchers must make their way backward from the long-term government and universities plans to the present state to figure out the missing links that need addressing. Further research is required to find practical ways to evaluate educational curriculums and programs used by HEIs. Moreover, in-depth expertise of specific aspects of the triple helix model must be uncovered before using it as an analytical framework to analyse the knowledge-based innovation systems in HEIs. Finally, combining Lombardi et al, (2012) methods in collecting and analysing data with focus group interviews will need further exploration for practical implementation in the current study.

References

- Bătăgan, L., & Boja, C. (2012). Smart solutions for educational systems-case study. *Procedia-Social and Behavioral Sciences*, 46, 4834-4838.
- Caragliu, A., Del Bo, C., & Nijkamp, P. (2011). Smart cities in Europe. *Journal of Urban Technology*, 18(2), 65–82.
- Cocchia, A. (2014). Smart and digital city: A systematic literature review. In *Smart city* (pp. 13–43). Springer.
- Etzkowitz, H. (2008). *The triple helix: university-industry-government innovation in action*. Routledge.
- Fadaeenejad, M., Saberian, A. M., Fadaee, M., Radzi, M. A. M., Hizam, H., & AbKadir, M. Z. A. (2014). The present and future of smart power grid in developing countries. *Renewable and Sustainable Energy Reviews*, 29, 828–834.
- Hall, R. E., Bowerman, B., Braverman, J., Taylor, J., Todosow, H., & Von Wimmersperg, U. (2000). The vision of a smart city. Brookhaven National Lab., Upton, NY (US).
- Hollands, R. G. (2008). Will the real smart city please stand up? Intelligent, progressive or entrepreneurial? *City*, 12(3), 303–320.
- Lee, J.-H., & Hancock, M. G. (2012). Toward a framework for smart cities: A comparison of Seoul, Sa Francisco and Amsterdam. Research Paper, Yonsei University and Stanford University.
- Liu, D., Huang, R., & Wosinski, M. (2017). Development of smart cities: Educational perspective. In *Smart learning in smart cities* (pp. 3–14). Springer.
- Lombardi, P., Giordano, S., Farouh, H., & Yousef, W. (2012). Modelling the smart city performance. *Innovation: The European Journal of Social Science Research*, 25(2), 137–149.
- Meijer, A., & Bolívar, M. P. R. (2016). Governing the smart city: a review of the literature on smart urban governance. *International Review of Administrative Sciences*, 82(2), 392–408.
- Nam, T., & Pardo, T. A. (2011). Conceptualizing smart city with dimensions of technology, people, and institutions. In *Proceedings of the 12th annual international digital government research conference: digital government innovation in challenging times* (pp. 282–291). ACM.
- Neirotti, P., De Marco, A., Cagliano, A. C., Mangano, G., & Scorrano, F. (2014). Current trends in Smart City initiatives: Some stylised facts. *Cities*, 38, 25–36.
- Winters, J. V. (2011). Why are smart cities growing? Who moves and who stays. *Journal of Regional Science*, 51(2), 253–270.
- Wolff, A., Kortuem, G., & Cavero, J. (2015). Towards smart city education. In *Sustainable Internet and ICT for Sustainability (SustainIT)*, 2015 (pp. 1–3). IEEE.



The New Approaches and Methods of Education Process Using in UNEC

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Abstract:

The authors systematised having experience in the following disciplines: Organizational Culture, Behavioral Sciences, Business Ethics, Negotiation Techniques, Business Organization and Management, Technology Management, Innovation Management, Strategic Management at Azerbaijan Institute of Management of National Economy (now faculty of UNEC) Azerbaijan State Economic University - UNEC during 1994-2018 years. This paper analyses the statistical data of higher education in Azerbaijan for 2000/01-2017/18 using statistical and comparison methods of investigation, methods of observation and collecting dates. Authors also consider the positive and negative factors which influence to education process by expert SWOT analysis method. The main research questions are as follows:

How is higher education developing in Azerbaijan? Does the Azerbaijanian government support young citizens leaving abroad for higher education? Do teachers use the innovative teaching methods? What innovative teaching methods are used to train specialists for the national economy? What innovative techniques and methods need to be introduced into the learning process?

The educational system should be closely integrated into the national economy of Azerbaijan, sensitively catch the ongoing innovation changes in higher universities of Azerbaijan. Authors have got this result: innovative transformations in the educational process had developing and changing at the request of society, public sector and also large and medium-sized entrepreneurs.

Keywords: state support of higher education in Azerbaijan, innovative changes in higher education, innovative teaching methods in universities, a rational combination of traditional and innovative teaching methods, prospects for the development of higher education in Azerbaijan.

Introduction

Recently, higher education has become an important factor in the competitiveness of countries. Each country is forced to train personnel with a high level of education in order to prepare the basis for innovative transformations, which in turn not only develops the national economy, but also strengthens its position in the global market. Estimates by specialists from the Organization for Economic Cooperation and Development (OECD) confirm that education costs are very, very high-yielding investments that pay off several times [16].

The higher education system should be closely integrated into the national economy of the country, sensitively catch the ongoing innovation changes and adapt to them, respond to the current trends in the technological and innovative development of the national and world economy. Consequently, the use of innovative techniques and teaching methods will contribute to the improvement of qualifications and skills of students and undergraduates, improve the quality of education in Azerbaijan.

Authors consider this investigation by following research methods: observation method, data grouping method, statistical analysis method, data comparison method. The authors gave an expert assessment using SWOT analyses.

The process of education as an economic category interacts with various sectors of the national economy and economic and production activities. In this case, all resources (labour, technology, materials, as well as raw materials,



energy, information resources, etc.) are combined in a single process of reproduction and reproduction of the total social product [7, 113].

In the process of education, human capital is formed and modified. The formation of human capital in Azerbaijan plays an important and priority role for the state. These government measures are treated as "Azerbaijan's Development Concept - 2020: outlook for the future» [3], "National Education Development Strategy of Azerbaijan Republic» [4], Laws of Azerbaijan "About Education" [13] and "About Science" [6].

In investigation of Azerbaijan higher education developing authors have considered the statistical dates. During the years of the restoration of the sovereignty of Azerbaijan the number of students, also the number of foreign citizens studying in the country's universities has increased. As can be seen from table 1. the number of bachelor students in the academic year 2015/16 increased by about 27% compared with 2000/01 [5]. Over the same period, the number of bachelor students in the group of agricultural specialties increased (approximately 82%). The indicators of next group specialties also increased: in economics and management speciality - approximately 37%, in technical and technological sciences - approximately 29%. During the same period, the proportion of bachelor students in specialty groups of natural sciences decreased (approximately 44%). At the same time the share of bachelors on speciality humanities and social sciences decreased (approximately 51%). As can be seen from table 1. the number of bachelors increased by about 15% over the academic years 2015/16-201 /18. The increase in the number of bachelors was observed by groups of specialties in agriculture - about 49%, for natural sciences - 14; for economic disciplines, also in the humanities and social sciences - about 15%, for technical and technological disciplines - about 16%.

Table 1. Number of bachelors, who have education in state and non-governmental universities of Azerbaijan (men). [9]

Years	2000-2001	2010-2011	2015-2016	in 2015/16 to 2000/01, in %	2017-2018	in 2017/18 to 2015/16, in %
Number of students- bachelors, total-men	26403	29904	33645	127.28	38546	114.56
Of them on speciality:						
Natural science	2532	1390	1436	-43.29	1635	113.85
Agricultural science	315	471	571	181.69	850	148.86
Economy and management	4890	6174	6663	136.57	7656	114.90
Human and social sciences	9088	3258	4539	-50.06	5209	114.76
Technological science	5930	7094	7614	128.40	8380	110.06
Etc.	3648	11517	12822	351.48	14816	115.55

As can be seen from table 2. for the period 2000/01-2015/16 the number of masters in the humanities and social sciences has decreased (about 42%), but the proportion of graduate students in all other areas of education has increased: in the natural sciences by about 75%, in agriculture - about 163%, in economics and management - 213%, on technical and technological disciplines - about 40%. According to the data of table 2. the increase in the number of masters was observed for the period 2015 /16-2017 /18 (32%) [5]. The number of masters in natural sciences increased by 45%, in agricultural disciplines approximately 24%, in economics and management - 12%, in the humanities and social sciences approximately 35%, in technical and technological disciplines by 68%.

Table 2. Number of masters, who have education in state and non-governmental universities of Azerbaijan (men). [8]

Years	2000-2001	2010-2011	2015-2016	In 2015/16 to 2000/01, in %	2017-2018	In 2017/18 to 2015/16, in %
Number of masters, Total (men)	2752	3698	4953	179.98	6515	131.53
Of them on speciality:						



Natural science	321	548	560	174.45	814	145.35
Agricultural science	35	21	92	262.86	114	123.91
Economy and management	638	1263	1994	312.54	2234	112.03
Human and social sciences	1105	1183	639	-42.17	860	134.58
Technological science	570	520	795	139.47	1336	168.05
Etc.	83	163	873	1051.80	1157	132.53

Recently, the number of foreign students receiving education in Azerbaijani universities is growing every day. For example, republican universities prepare specialists not only from CIS countries, but also from abroad in the field of oil and gas production and refining, for the petrochemical industry, for the industry of petroleum engineering, in the field of oil shipping, military science, in philology, history, in mathematics and in other disciplines. Note that the area of the countries is the most diverse and covers almost the Earth world (from the USA, Canada, Latin American countries to China, from the countries of the African continent to European countries).

For the period 2000/01 - 2017/18 academic years, the proportion of the number of bachelors and masters combined increased by 128.3%. But for the period 2010 /11-2017/18 years the proportion of students from Russia increased by 151.8%, from Ukraine - 300%, from Kazakhstan - 66.7%, from Turkmenistan - 70%, from Uzbekistan - 6.3 times, from the USA 5 times, from Georgia - 136.4%. Unfortunately, the proportion of students from Turkey has decreased (by 32%).

According to statistics [5], over the past 18 years, the number of Azerbaijan citizens receiving education abroad has also increased. The number of Azerbaijani youth receiving higher education in foreign countries has increased almost twice (period 2000 /01-2017 /18). The period 2010 /11-2017/18 years differs by particular activity of various educational programs from Europe and Asia, which particularly influenced the growth of the number of students studying abroad. The growth in the number of students in the USA from Azerbaijan is especially noticeable (this indicator has increased by twice), in Canada (280.5%), in Germany - 116%, in the UK - 112, 5%. Unfortunately, the number of students receiving higher education in Turkey has noticeably decreased by 32%

The second question of research was next - Does the Azerbaijanian government support young citizens leaving abroad for higher education? It should also be noted the role of state support in obtaining highly qualified education in Azerbaijan [11]. According to the "State Program for Teaching Higher Education of Azerbaijanian Youth in 2007-2015" [12] of December 31, 2016 State Oil Fund of the Azerbaijan Republic receive a grants for 3,302 students who are educates not only in European states, but also in Canada. About 29% of the total number of bachelor and master students are educated in Great Britain, in Turkey - 22.1%, in Germany - 12.4%, in Canada - 7.2%, in the Netherlands - 5.2%. About 4 % of bachelors and masters are educated in Russian Federation [12]. It should be noted that the majority of these are masters (79.0%) [10].

A significant part of masters receive higher education mainly in economic specialties. The most popular among young people is the specialty "Economics and Management" (722 people in 2017). In second place in popularity are specialties related to engineering knowledge (138 people in 2017). There is also interest in the legal sciences (120 people in 2017) and the ICT field (118 people in 2017). The same situation can be observed among bachelors [12]. In investigation of second question author have received an answer – Yes, Azerbaijan government support young scholars in receiving higher education abroad. They can work in different fields of national economy, especially in bank and insuring sectors, in tourism industry, in government structures and in high education sector of Azerbaijan.

Many alumnus, when returning home, work not only in foreign companies, but also in higher education sector of Azerbaijan. The first pioneers among them were graduates of the one-year course of top managers from Turkish Istanbul University since 1991, graduates of Istanbul University on the VAQF's pilot project of the Turkish World



Research Foundation in Baku, who also received a master's degree in Turkey and worked as teachers in the Azerbaijan Institute of Management of National Economy under the Cabinet of Ministers of the Republic of Azerbaijan since 1997 (now faculty of UNEC).

In Azerbaijan Institute of Management of National Economy under the Cabinet of Ministers of Azerbaijan Republic was also organised the three-month course of market economics' course by the professors of the Kiel University of Germany. There in the period 1994-1997 was organised the three-year course of "Public Administration and Management" under the TACIS programme. Lecturers and Trainers from Nottingham Trent University (Great Britain), the University of Maastrich (Netherlands) and the Institute of Management of Ireland delivered the disciplines in Economics and Public Administration to trainees from Azerbaijan. At the end of these courses was established the School of Public Administration in Azerbaijan (SPAA), whose senior teachers taught modern methods and techniques in economics and management to senior officials of the Customs Committee, the Ministry of Taxation of Azerbaijan, employees of the Central Bank and other organizations in 1995-2001. Nowadays, many graduates of these courses teach at Azerbaijan State Economic University, at Baku State University, at Western University, at Baku University of Business, at private university Azerbaijan, and others. Since 2001, senior lecturers of School of Public Administration in Azerbaijan (SPAA) and teachers who graduated from the Istanbul University faculty began working in the Business Administration faculty of the Azerbaijan State Economic University (UNEC).

Since 2004 various programmes of the European Community and Asia suggest to Lecturers and Researchers of Azerbaijan State Economic University (UNEC) some advanced training. For example, according to the latest data from the UNEC website, a vacancy is open for receiving scholarships for research and internship at the Kong-Gong University of Japan, at universities in South Korea, and at universities in Turkey. Every day the number of teachers who have received higher education abroad is growing whose actively use the innovative teaching methods and techniques in practical classes and lectures.

Students enrolled in undergraduate and graduate programmes also have the opportunity to receive additional education in universities in Europe, Asia, and the America continent. According to the latest news from the UNEC website, they have the opportunity to study from the third year at French Montpellier University, London Scholl of Economics and get a double diploma in education [14].

The third question of research was next - Do teachers use the innovative teaching methods? Authors would like to consider this problem in detail.

Innovative techniques and teaching methods implemented in Azerbaijan State Economic University (UNEC)

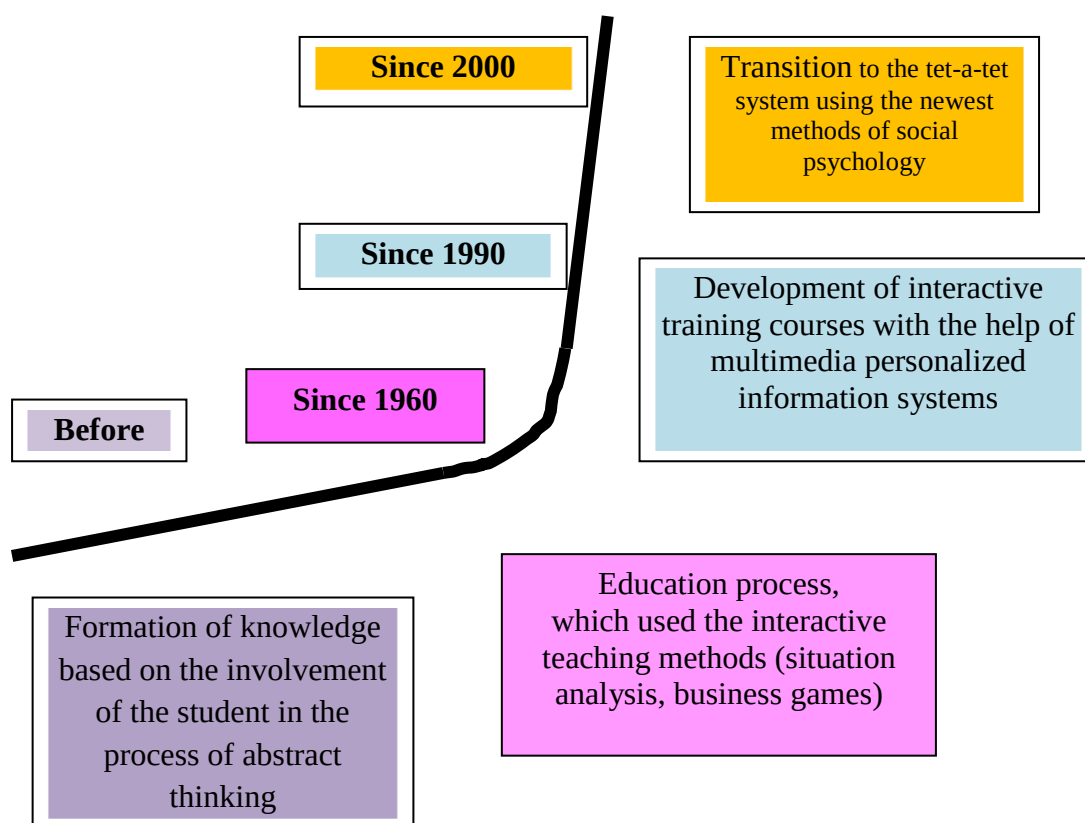
In conditions when the formed education system ("supporting education") is gradually being replaced by an innovative education model ("creative learning") more of trainers and tutors are looking the new teaching methods in the educational process. In this process have been changing the requirements to all interested persons of education: tutors, teachers, trainers, students, administrative staff of university, finally all educational system.

As can be seen from the Scheme 1. the traditional system of education goes through several stages on the path of improvement. Training on the basis of indispensable involvement in the environment of thinking in the 1960s of the last century proceeds to the training of practical skills on the basis of such training seminars as case studies, business games, learning systems. Since the 1990s the educational process has transferred to a new stage of learning - the development of interactive courses using personalised multimedia systems (Personal computers, mobile phones, distance learning, etc.). Further technical improvements should be replaced by an educational process based on the tet-a-tet technology of a student with a trainer or teacher using various socio-psychological methods of teaching [1].



The educational process, which actively used the Soviet system, has some drawbacks:

- Classroom education system - the transfer of knowledge through a survey lesson - does not meet modern requirements for the use of creative activity;
- Education programmes are mostly dogmatic in nature, not adapted to actively changing conditions of reality;
- The methodological base of textbooks is so outdated that many scientific achievements and recent discoveries are not reflected in them;
- There is no proper motivation of the average student for independent thoughts and actions, i.e. to the ability to develop independently and to replenish existing knowledge.



Scheme 1. Education process and requires to its development.

In this context, schools and methods of developmental education, which teach the dynamic perception of reality, are of great importance. The specificity of the education system should be manifested in its ability not only to provide the student with knowledge, but also to form the need for continuous mastering them, i.e. develop the skills and self-education skills. In addition, for the purpose of productive professional activity, it is necessary to instill in students such important qualities as creativity, independence, enterprise, agility, stress resistance. To this end, since the 90s of the last century, they began to use innovative, reflective business games, in which situations of choice and decision-making are modeled.

If we take into account the fact that new psychological tests and business games have been actively used in the educational process in the spatial context of the former Soviet Union since the 1980s (they cover the period of



creating interactive educational programs taking into account multimedia tools and information technologies, as well as tet-a-tet based programmes' learning which using various socio-psychological techniques), the active use of psychological techniques in teaching and in the educational process has now become not only fashionable, but also necessary condition of the process of interactive learning.

These processes include the use of an immediate survey of students according to the method of the Mentimeter system, the joint design of the business plans of students under the guidance of a trainer. The use of interactive forms of learning, such as testing after a lecture, e-consultations, and e-learning, helps realise the benefits of learning: mobility, interactivity, memorability, flexibility in use, accessibility, reduction of training expenditures [16].

Now, in all developed countries of the world, a lot of attention is paid to the process of socialisation and upbringing of new generations of society. Scientists distinguish two fundamental approaches in pedagogy: nature conglomeration or cultural conglomeration; following the child's "natural" nature or obeying its culture? The scientists' answer is led to a single goal. At the same time, the goal of education is to lead to culture (improvement of the student's positive creative qualities), and the method of education should be based on the nature of the student (identification of generic, external, internal psychological negative factors and their correction in a positive direction).

For investigation of forth question - What innovative teaching methods are used to train specialists for the national economy? – authors analysed the process of education in UNEC and have some expert conclusion.

As can be seen from table 3. only strong students are able to better adapt to the new world requirements of training, and weak students perceive all innovations as a blow to their ego and actively resist innovations. Students with average statistical knowledge at the beginning watch for innovations in education with caution, but after adaptation they perceive these innovations positively.

Table 3. SWOT Analysis of Innovative Training in High Education School of Azerbaijan

Strengths ➤ Developing the ability to think independently and make decisions; ➤ Strong students gain independent work experience; ➤ The Lecturer or Trainer can control not only the student's behavior, but also the process of their thinking.	Weaknesses ➤ Weak students do not gain independent work experience; ➤ Students' self-control may be weakened; ➤ Not all tasks are completed on time.
Opportunities ➤ Teaching time is shortened by increasing attention to detail; ➤ There is a sincere interest in the subject of study.	Threats ➤ With the strengthening of social ties between students, ties with teachers deteriorate. ➤ Lack of control can contribute to laziness;

Using the new approaches of learning in their course (business games, case studies, testing, etc.) the trainer and teacher can adjust the subject of their subject according to the interests of students and their level of preparedness; pay attention to the overall level of assimilation of complex topics; focus on clarifying topics that are difficult for students to understand. In addition, a poor student has a chance to take the exam several times until he reaches the desired result.

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Results

Prestigious models of higher education are the Chinese model, and the European education system, each of which has its own content, principles, values and specificity. Basically, the formation of a high level of higher education should be based not only on a high level of higher education with the support of the government, on scientific and technical cooperation and cooperation of universities of the whole world.

For the formation of a quality higher education Azerbaijan transfers to implementation of principle of openness, not limiting the student in time and spatial framework: the student gradually develops into a subject who decides for himself what disciplines and when he can study and when he can pass the exam. And it forms the autonomy and sense of responsibility of the student, taking into account his individual personality characteristics.

The development of cooperation and interaction of universities is possible in terms of joint scientific research developing. For this purpose inter-university laboratories are being formed as centers of collective use, interuniversity departments are being created, regional centers of quality management system certification are being formed, programs for the export of educational services (training programs for bachelor and master) and technologies (distance learning programs, interactive business games using information technologies) are being developed which will contribute to the development of innovation activities in the country.

Higher education should be based on using of information and communication technologies, on development of network distance learning methods. The creation of joint information resources contributes to developing of educational technologies and the implementation of e-learning, the introduction of innovations and the acquisition of positions like as the regular customer and the regular provider of educational, scientific and methodological services, consultations, etc. It should be noted that information technologies only enrich the learning process. Management of the learning process remains with the teacher and trainer. Only the teacher organises the procedure of contact with the student during consultations or through communication on the Internet.

Using the innovative learning techniques the teacher works as an expert and consultant (tutor, moderator, mentor) who helps to student to navigate the world of various information. With the expansion of the circle of consumers of educational services the encouragement is used as a method of active self-realisation among students.

The fifth question of research - What innovative techniques and methods need to be introduced into the learning process? – considered some facts in education process and have got the next results. Innovative characteristics of new teaching methods are as follows:

- 1) to use the irrational (inherent in the East) and also rational (inherent in the West) analysis methods in study and in research;
- 2) to support of constant attention and interest of students on the situation being analysed;
- 3) to use of non-standard methods of analysis;
- 4) to develop of students' creative approaches in identifying the details, as well as resolving the proposed situation.

It is necessary to note Azerbaijan high education system has got some problems that still need to be solve. Unfortunately, higher education in Azerbaijan has a number of shortcomings, which include the following:

➤ There is no unification in education programmes for various disciplines, which creates certain difficulties for students, especially for students of private universities. These disciplines mainly include new educational courses in economics, sociology, psychology, information technology, and philosophy. There are no uniform textbooks, especially in Azerbaijan language;



- Some knowledge is not adjusted in accordance with the temporary stage of social development, some lectures contain old topics, the methodological base of education is weak. Many students are not familiar with the scientific achievements of Azerbaijanian and other Turkic-speaking, Islamic scholars of the middle Ages. For example, many do not know that the founder of sociology was Ibn Haldun, the scientific heritage of Aristotle and the ancient Greeks was restored thanks to the abstracts of Al Farabi (for example, look at the course “Behavior”) [2];
- With the development of information technology more students use telephones and smartphones and they pass valuable information past the ears. There are no teaching techniques using students' mobile gadgets, which would contribute to their active involvement in the educational process;
- The principle of learning “a student must able to apply acquired specific knowledge in his future profession” is gradually replaced by the principle “a student must select resources-knowledge to adapt to new conditions and be able to find and correctly use various options for solving life problems”. The task of the faculty, management and specialists of high schools is to create and form the new schools and methods of developmental education that teach the dynamic perception of reality;
- Not all foreign diplomas from foreign countries are accepted by the Ministry of Education and the Higher Attestation Commission of Azerbaijan Republic. If this issue is resolved by bilateral agreements between the CIS countries, then there are no agreements between Azerbaijan and other European countries and countries of the Americas which creates some obstacles in the identification of BSc's., MSc's. and PhD's Diplomas.

Conclusion and Recommendations

The implementation of innovative techniques and methods of functioning in universities' administrating create some opportunities and prospects for accelerated access to new markets. The development of information technology contributes to the network interaction of the educational process, reduces expenditures; expands access to information not only in the network of the university itself, but also in the networks of the university partners. And it promotes the sharing of risk among network members, strengthening cooperation ties.

Summing up, we note that Azerbaijan, being exactly in the middle of the Eurasian continent, at the junction of Europe and Asia, between the Christian and Muslim worlds has a wide potential for implementation of teaching different methods. And in turn, Azerbaijan develops traditional areas of science - mathematics and higher mathematics, philosophy, philology, archeology, history, learning old languages as well as geophysics, chemistry, mineralogy, and other disciplines. But, unfortunately, Azerbaijan has not yet created its own development model in the field of higher education. The need to create and form a national model of higher education is a priority task for the society and universities of the republic.

The preparation of specialists with higher education is an interacting system that determines the consideration of the features of the educational process throughout the world. It is necessary to take into account the fact that in the context of globalisation many young people who focused on career growth prefer to receive a higher education that can compete with the best European standards. For this purpose, it is necessary to form such a model of higher education in Azerbaijan that could train specialists not only for the CIS countries, but also for Europe and the whole world. It is necessary to create the structure which will be cooperate university and research institutes' activity on the example of the Research State University of Nizhny Novgorod of the Russian Federation [15].

The authors suggest that the creation of an information base about specialists who have been trained abroad and working in the universities of the republic is one of the first steps for the formation of the faculty. Secondly, it is necessary to form groups for creating shells for content as part of network specialists in various disciplines. Thirdly, it is necessary to continuously update and improve training programmes, business games, programmes for analysing a specific situation for sale through the information network - SKYPE, WHATSUP, etc. Fourth, it is necessary to



develop scientific and technical cooperation in developing joint training programmes with the CIS countries. Fifth, it is necessary to adjust the system of knowledge assessment and testing the level of competence, to form a unified system of knowledge assessment.

References

- “2007-2015 illər ərzində xarici ölkələrin universitetlərdə təhsil alan azərbaycan gəncləri üzrə Dövlət Proqramı” (2015) Azərbaycan Respublikası Prezidenti nəzdində Təhsil üzrə Komissiya Sədrinin Fərmanı. №. 8, 09 fevral. - “The State Programme on Education of Azerbaijanian Youth People in Foreign Country Universities in 2007-2015” (2015). Decree of the Chairman of the Education Commission under the President of the Republic of Azerbaijan No. 8 of February 09, 2015 (in Azerbaijan).
- “Azərbaycan Respublikasında təhsilin inkişafı üzrə Dövlət Strategiyası” (2013) Azərbaycan Respublikası Prezidentinin sərəncamı № 13, 24 oktyabr 2013-cü il - www.e-qanun.az/framework/29145
- “Azərbaycanın İnkişaf Konsepsiyası-2020: gələcəyə baxış” (2012) Azərbaycan Respublikası Prezidentinin 2012-ci il 29 dekabr tarixli Fərmanı - https://president.az/files/future_az.pdf
- “Elm haqqında” (2013) Azərbaycan Respublikasının Qanunu - http://science.gov.az/uploads/PDF/Elm_haqqinda_Azərbaycan_Respublikasının_Qanunu.pdf
- “Təhsil haqqında” (1992) Azərbaycan Respublikasının Qanunu - www.e-qanun.az/framework/7956
- Abasova, S.H. (2007) “Davranış elmləri” üzrə mühazirələr toplusu”. Azərbaycan, Bakı, Azərneşr, 170s.(Abasova, S.H. (2007) Collection of Lectures in Course “Behaviour Sciences”. Azerbaijan, Baku, Azerneshr Publishing, 170p. (in Azerbaijan))
- Azərbaycan Respublikasının milli iqtisadiyyat perspektivi üzrə Strateji Yol Xəritəsi. (2016). Azərbaycan Respublikası Prezidentinin Fərmanı, 06 dekabr. (Strategic Road Map of Azerbaijan for Perspective Development of the National Economy of the Azerbaijan Republic. (2016). Decree of the President of Azerbaijan, December 6).
- Azərbaycanda təhsil, elm və mədəniyyət. (2016) Azərbaycan, Bakı, Statistika üzrə Dövlət Komitəsi, 218-219. (Education, Science and Culture in Azerbaijan. (2016). Azerbaijan, Baku, State Committee of Statistics, 218-219.)
- <http://www.stat.gov.az/source/education/> (2019) (Hissə 1.8.23. Dövlət yolu ilə xarici ölkələrdə təhsil alan azərbaycan vətəndaşlarının sayı)
- <http://www.stat.gov.az/source/education/> (2019) (Hissə 001_8_10-12xls)
- Mənafova, Ə.Q. (2013) Təhsil xidmətləri bazarında ali məktəblərin rəqəbətqabiliyyətliliyi. Azərbaycan, AMEA İqtisadiyyat İnstitutu Xəbərlər jurnalı, №. 3 , 82-87.(Manafova, E.Q. (2013) The Competitiveness of Higher Education Schools in the field of Education Services’ Market. Azerbaijan, News of Economy institute of Azerbaijan National Academy of Sciences, No.3, 82-87. (in Azerbaijan))
- www.unec.edu.az
- www.unn.ru
- Абасова, С.Г. (2014) Рациональное сочетание инновационных методов с социальной психологией в образовательном процессе в сфере подготовки экономистов и управленцев. Азербайджан, Сборник научных трудов НИИ Экономических Реформ при Министерстве Экономики Азербайджанской Республики. Выпуск 14, 40-44.(Abasova, S.H. (2014) The Rational Combination of Innovative Methods with Social Psychology in the Educational Process in the Field of Economists’ and Managers’ Training. Azerbaijan, Collection of scientific papers of Scientific Institute of Economic Reforms under Azerbaijan Republic Economy Ministry. Issue 14, 40-44. (in Russian))
- Гамидов, Г.И., Гусейнли, А.И., Шамхалова, С.О. (2016) Создание и стимулирование инноваций в развитии бизнеса в Азербайджане. Сборник 2-й международной научно-практической конференции «Прорывные инновационные исследования». Россия, Пенза, изд. МЦНС «Наука и просвещение», 113-120. (Hamidov, H.I., Huseynli, A.T. Shamkhalova, S.O. (2016) Innovation Creating and Stimulation in Business



Developing in Azerbaijan. Collection Paper of 2nd Simposium “Innovations Diversification Research”. Penza city of Russian Federation, Publishing Centre “Science and Civil Education” of International Centre of Scientific Cooperation, 113-120 (in Russian))

Яковлева Е.В. (2009) Современное образование, ориентированное на подготовку высококвалифицированных кадров для инновационного бизнеса в условиях экономики знаний. Россия, Журнал Омского государственного технического университета, № 3, 9-16. - Yakovleva, Y.V. (2009) Modern Education which focused on the Training of Highly Qualified Personnel for Innovative Business in Terms of Knowledge Economy. Russian Federation, Journal of Omsk State Technical University, No. 3, 9-16.



The Current Position of Science Development in the World and in Azerbaijan

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Abstract

Science, knowledge, scientific output and scientific enterprises are leading resource which possesses decisive significant in the field of general development and especially in economical development. It was founded that the role of number of staff dealing with the research is lower in executed scientific technical works for objective reasons. It is explained as follows: their potential is not fully used; In order to realise their potential the favourable environment, conditions and initial capital are not at the same level. Correlation and regression equation (OLS) structured according to the mathematical economy methods and dependency among variables are determined. Application of obtained and will be obtained scientific achievements, inventions are very weak in strong competition in globalization and international free economic conditions.

Keywords: Scientific research activity, Researches and developments, Indexes of scientific citation

Introductions

Science, knowledge, scientific output and scientific enterprises are leading resource which possesses decisive significant in the field of general development and especially in economical development.

The world experience shows that scientific and technical progress is essential factor to eliminate social and economical reforms, crisis and stabilize economy. On this point, issue of increase of role of science is particularly agenda to renovate products and increase scientific and technical potential for countries transition market economy.

In fact, in the transition to a market economy, none of the countries in the former Soviet Union were scientific and technical progress, not just at the level of economic development. Changing ownership relationships and directing the financial sector to economic reform has highlighted important challenges such as the development of national science, which provides technological refinement of production and the production of competitive products (Bapava, 2007). The scientific technological factor has almost completely been excluded from the reform list of the economy. The result of such a policy has led to the escalation of the technological crisis, the decline in production, the loss of domestic and foreign markets, and increasing technological dependence on foreign countries.

Of course, it must be taken into account that Azerbaijan, which has embarked on its own path of independent development, has a nation-wide complex of industries, with different levels of development of the industry and scientific-technical fields, as well as other states of the union. All of this, undoubtedly, allows to predetermine the potential of Azerbaijan and prospects for the development of national scientific complexes. The world experience shows that, regardless of the size and the natural environment of each state, the technological innovation and socio-economic progress of each state should develop at a fairly high level. This level is determined by the political and socio-economic aspects of science in general in the economy and the development of society. The level of scientific technical progress should not only be sustainable, but also sustainable. Otherwise, the innovative foundation for socio-economic progress will weaken.



At present, the status of science in the Azerbaijani economy is directed to the tendency in the world system. In developed countries, science is viewed as the key to modern economics: innovations are a source of economic growth, science is a priority over the state's activities and other areas, and the dynamics of scientific costs surpass GDP growth. During transition to economic relations, the scientific and technical potential has not only been focused on, but has been subjected to collapse. As a result, the scientific and technical field in the country has led to a deep crisis that can also be considered as the following: unit technological space was divided into scientific and technical complexes after USSR collapsed; centralized planned system guidance had never thought of equal-strength and self-supply opportunities of the countries included the alliance; large scientific and research and invention centers were placed in Russia, Belorussia and Ukraine; Scientific-technical complexes for the republics such as Azerbaijan, Georgia, Armenia, Kazakhstan and Uzbekistan were aimed at solving minor problems that were highly specialized; there were not raw materials in countries with raw materials such as Turkmenistan and Tajikistan, the scientific direction was almost completely absent. Thus, the scientific academies of national sciences conduct research only on various subjects of fundamental science.

Theory and literature review

Actual scientific knowledge is a classical social blessing. It is a base of innovation. In addition, it is an essential component of our economy in applied way.

It should be emphasized that data and information is an essential component in formation of scientific knowledge and its main product. In other words, they are both incoming and outgoing (*Arrow, 1962, p. 618*). However, complete knowledge is broader, shorter and cumulative (*Mayr, 1982, p. 23*).

Science and concept of science were come across before Aristotle. In certain periods it appeared in Roman language. Use of this concept in English lasted till 1600 and accepted as synonym of *knowledge*. Initially, it referred to natural, obvious knowledge in comparison with intuitive knowledge. It was called a natural philosophy in English. The deductive method was preferable.

With the new essence of the "natural philosophy" of science, a new word was demanded for practice and experiment. William Wavell the professor of Cambridge University suggested the term of *science* in 1834. We should note that exchange among people is not satisfied only with economic sphere. This, of course, also led to the exchange of knowledge and, in general, a scientific revolution in Europe.

One of the famous economists Romer made several important researches during 1980-1993 years. In his works he based on that the long-term growth was first of all stipulated by the knowledge's accumulation. He applied to the idea of *Powell (1886)* and considered as "the first necessity of capital".

In the second decade of the XXI century scientific-technical progress is one of the decisive factors in removing the crisis phenomena of the economy in stabilization of socio-economic reforms. Many of the problems now facing humankind can be solved only if we approach science more holistically (*Kananaskis Village, Alberta (Canada), 1998*).

Developments in science and technology are fundamentally altering the way people live, connect, communicate and transact, with profound effects on economic development. (*Lee-Roy Chetty, 2012*).

From this point of view, updating of production and enhancing the role of science in scientific and technical potential for the transition to market economy countries increasing problem is particularly acute. In reality during the transformation to a market economy none of the states of former Soviet Union was factor of the



economic development. As important issues: the changes of economic reforms ownership and technological update the direction of production in the financial sector and the national development of science for providing production of competitive products were in the second plan. We can say that the scientific-technological factor was removed completely from the list of economic reforms. As a result of such policy it has led to aggravation of the technological crisis, decrease in production loss of domestic and foreign market, dependence on growing technologically from foreign countries.

Research methods: theoretical and empiric methods were applied, information was realized, induction and currently methods were treated in this article. All science literature, official documents, the results of activity in this direction is studied. Correlation and regression equation structured according to the mathematical economy methods and dependents among variables are determined.

The development of science in the world

Scientific and research activity in the world experience is regarded as scientific and technical development indices in the country. Also, the total number of scientific articles published in the scientific journals included in the scientific citation index system, such as Sciences Citation Index (SCI) and Social Sciences Citation Index (SSCI), is calculated. As a source of information it is accepted the US National Science Foundation and Thomson Reuters scientific statistical database of the international scientific organizations. Studies of scientific and research work covers the following areas: Earth Science, Astronomy and Cosmos, Mathematics, Physics, Chemistry, Biology, Medicine, Psychology, Sociology Technics and Technology, Mechanical Engineering, Agricultural Science. Indicators of research activities of the world countries are published in the special report of Science and Engineering Indicators of the US National Science Foundation.

These reports, which have been renewed from time to time, are ranked according to the level of research activity published in the above-mentioned journals. A list of world countries based on the 2011 data was published in 2014.

The given typology is focused on two groups:

1. Resource indicators of science:
 - a) number of engineers and constructors for per 1000 population;
 - b) SREDW costs for per capita of the country (the USA dollar);
 - c) SREDW costs for per investigator (the USA dollar);
 - d) share of financial deduction of SREDW in GDP of the state (in %)
2. Effect indicators of science:
 - a) number of scientific publication for per 1000 of population;
 - b) number of scientific publication for per 1000 of engineers and scientists;
 - c) number of submitted resident patent application for per 1000 population;
 - d) number of submitted resident patent application for per 1000 of scientists and engineers;
 - e) share of high-tech products in total exports of the country
 - f) number of computers for per 1000 of population

Use of relative indicators enables to compare certain big and small countries and also to classify them according to the types of progress level of science.

20 countries include in group of countries with high-progressive science (I group). Among them the USA, Japan, Germany, Great Britain and France are giant countries in this field.



They have high absolute and relative costs (80% of global spending) for SREDW, a large number of employees, a high level of private participation in financing and research, a low share of government, scientific and technological achievements and a stable leadership in discoveries. Although those countries belong to the same groups and possess almost same relative indicators, they can be divided into 3 subgroups:

- a) this group includes countries with high resource costs and high scientific rationality: Sweden, Switzerland, Japan, the USA.
- b) this group includes countries with high resource costs, rather low scientific rationality, where costs exceed income: Germany, France, Israel.
- c) this group includes countries with high scientific rationality and not much resource indicators: European countries (Netherlands, Denmark, Finland, Belgium, Ireland, Norway), also the Great Britain, Canada, Australia, New Zealand, Korea, Singapore.

Countries with medium level science progress are entered in II group. It includes Western European countries (Italy, Spain, Portugal, Greece), Eastern European countries, CIS countries, some countries of Southern, Southeast and Eastern Asia, Southern and Central America. Most of them are in the stage of establishment of new national scientific schools in science and research area. Financial difficulty in these countries confined scientific research opportunities and scientific progress in SREDW stage. Financing is realized thankful to the state exceeding private sectors. This group can also be divided into 3 subgroups for indicators of medium progress of science:

- a) It includes countries with the same costs and scientific rationality indicators. There include countries: In countries such as Czech, Spain, Slovenia, SAR, Romania, Bulgaria, Mexico, Argentina, Chili, Turkey classic science (nature-oriented research that does not require large amount of financial resource) covers structure of SREDW.
- b) This group embraces countries with medium costs indicators and rather low scientific rationality. The list includes Poland, Croatian and Ukraine. Nowadays countries come across with low financing, reduction of scientific and technical potential and “brain flow” in the direction of scientific progress.
- c) This group includes countries with medium and low costs and high scientific rationality. There are 4 countries in this group: Hungary, Slovenia, Thailand and Philippine. Its assessment particularity is due to low resource supplement for science to scientific research possessing descriptive character. This kind of researches does not require much costs, however rationality can be high thankful to publications. Therefore, in the comparison between “costs”/ “product” these countries tend to “product”, consequently it affects their place in the world of science in the world.

III group. Countries with low scientific progress. There are 12 countries in this group: India, China, Tajikistan, Uzbekistan, Vietnam, Uruguay, Ecuador, Egypt, Bolivia, Nigeria, Sri-Lanka, Ben cover 2 subgroups.

- a) This group include countries engaged with highly financed scientific product but with rather low indicators. China and India are in this group.
- b) Other group of countries with very low financing and lack of scientific and technical personnel, undeveloped scientific infrastructure. Scientific researches in this type of countries are done via support of state budget or foreign sponsors and this finance is mainly spent on agricultural areas and mining work.

The development of science in Azerbaijan

International experiens shows that teritorial size, regardless of the natural conditions of each state, its economic and social progress in the source of technological innovation and assimilated technology needs enough high level development. This level of science in the economy and the development of society, political and socio-economic directions are determend.



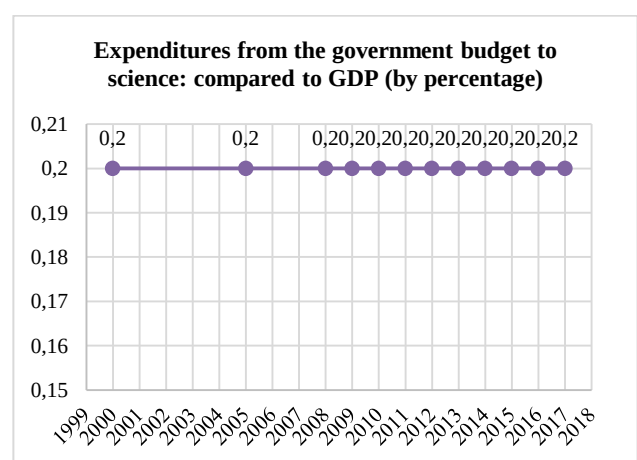
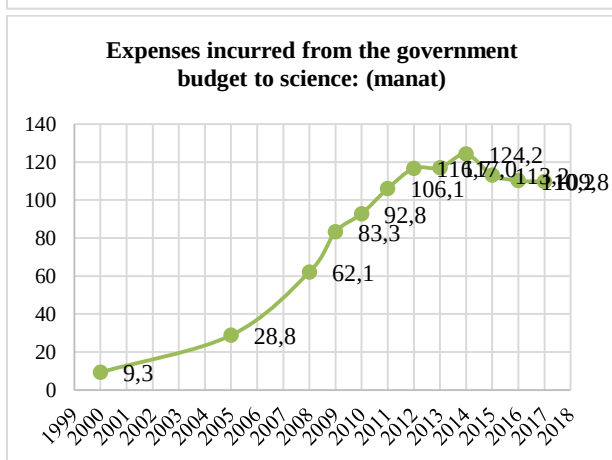
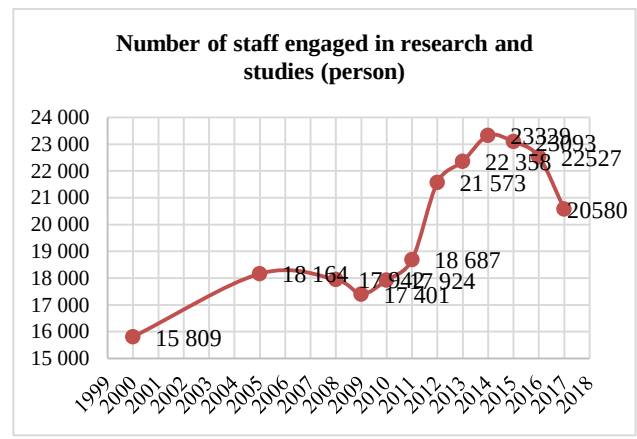
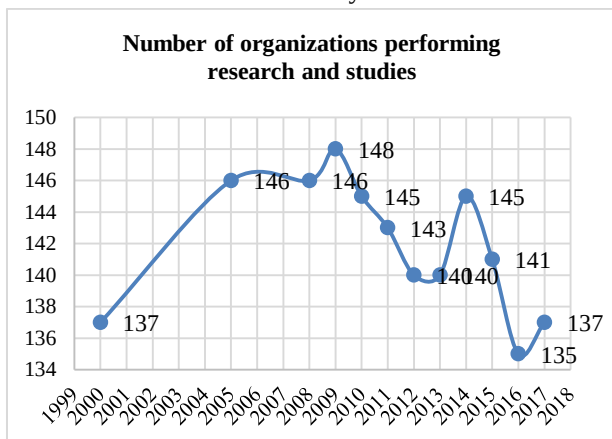
For every nation to get developed, the application of both science and technology has to go hand in hand (Samiksha S. 2015). The level of obtained scientific technical progress is not only sustainable including constantly must be developed. Otherwise the innovation foundation of socio-economic progress will be weakened.

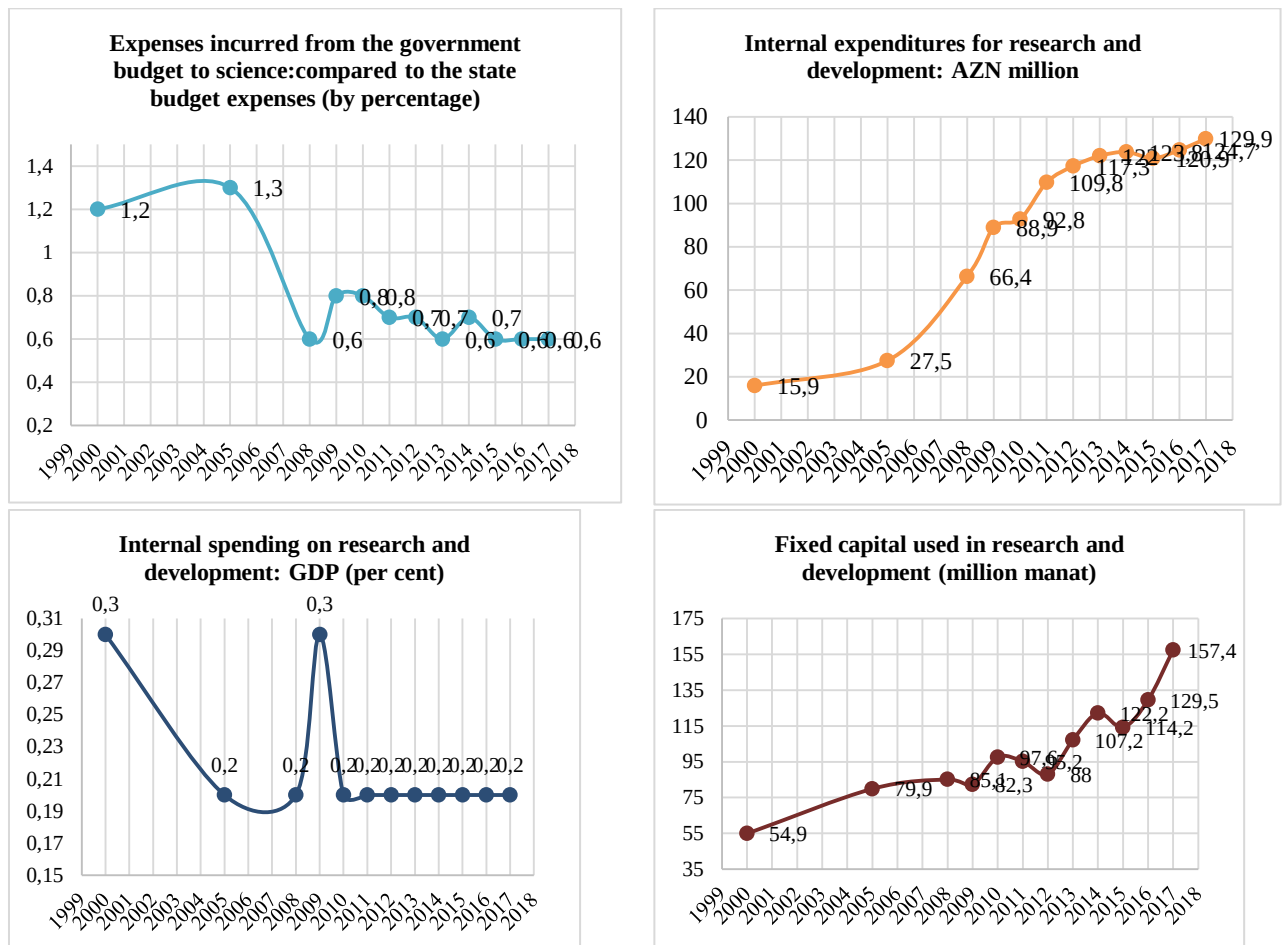
Embarked on the path of independent development Azerbaijan, as the other states of the former Soviet Union had complex national economy developed different levels in the field of industry and scientific-technical areas. Of course all this allow to determine potential of Azerbaijan and prospects of development in the national research facilities in advance.

Currently the science status of Azerbaijan economy is directed towards the world system tendency. In developed countries science is regarded as the key of modern economy: innovations are considered as the source of economy growth, the activity of the government and is the priority over the areas, dynamics of scientific spendings follows the GDP growth rate exceed. It was not paid much attention to the scientific technical potential in transition period of economic relations, even it was destructed. As a consequence of it, it has led to deep crisis situation in the scientifically technical sphere in the country.

Let's take a look at the dynamics and proportion of other indicators of funds allocated from the state budget for scientific research in our country during the year.

Tables. Dynamics of main indicators of scientific and research issues





Science system of the world is very dynamic in terms of time and space.

Gradually, progress and degradation of states in the field of science leads to change of their scientific status in the world community. This situation can be seen in the case of Azerbaijan. While studying the key indicators of science in the country in 2005-2015, it was determined that the number of research and development organizations increased from 136 to 141 during 2000-2015. During that period the number of personnel engaged with research and development increased by 1,52 times compared to 2000, 1,37 times compared to 2005, almost remained stable 1,38 times compared to 2010, also number of Doctors of Science in 2015 increased by 2,35 times compared to 2000, 2,29 times compared to 2005, 1,85 times compared to 2010, number of Doctors of Philosophy increased by 1,95 times compared to 2000, 1,96 times compared to 2005, 1,83 times compared to 2010. In addition, the number of scientific and pedagogical workers working in higher education enterprises, who are not enrolled into personnel but engaged with research and development, has decreased. The decrease in 2015 was 0,06 % compared to 2000, 0,15 % compared to 2005, 0,05 % compared to 2010, also the number of Doctors of Science among them during that period in 2015 decreased by 1,15 times compared to 2000, remained unchangeable compared to 2005, 0,09% compared to 2010, the number of Doctors of Science increased by 1,06 times compared to 2000, 1,01 times compared to 2005, 1,10 times compared to 2010. State budget allocated to science in 2015 increased by 12,11 times compared to 2000, 3,93 times compared to 2005, 1,21 times compared to 2010, net weight of GDP remained stable 0,2 percent, net weight of costs of state budget slightly decreased, domestic costs allocated to research and development in 2015 increased by 7,62 times compared to 2000, 4,39 times compared to 2005, 1,31 times compared to 2010, net weight of GDP remained stable 0,2 percent, main



funds used in research and development in 2015 increased by 2,08 times compared to 2000, 1,42 times compared to 2005, 1,17 times compared to 2010 (26).

Result of research

Lets look through the mutual relations among science indicators:

$$Y_{YYETi} = 15,9138 - 0,00106453 X_{TIMHS} + 1,14657 X_{DBEÇX}$$

(0,5013) (-0,5285) (9,0010)***

$$R^2 = 0,988294; DW = 1,774998 \quad (1)$$

$$Y_{YYETi} = 34,9187 - 0,00178049 X_{TIMHS} - 0,19723 X_{TIIÖV} + 1,24058 X_{TIŞÜX}$$

(1,2313) (-0,8860) (-0,8341) (10,0103)***

$$R^2 = 0,993607; DW = 2,120417 \quad (2)$$

As the statistic significance is little in basic facilities used in research and works is removed and a new equation is obtained.

$$Y_{YYETi} = 34,3379 - 0,00247932 X_{TIMHS} + 1,19742 X_{TIŞÜX}$$

(1,2601) (-1,4120) (11,0622)***

$$R^2 = 0,992125; DW = 1,875425 \quad (3)$$

Note: * $p \leq 0,1$; ** $p \leq 0,05$; *** $p \leq 0,01$

YYETİ	—	Carried out the volume of scientific technical research
TİMHŞ	—	The number of staff dealing with the research and works
DBEÇX	—	Expenses spent for science from state budget
TİŞÜX	—	Toatl expenses for research and works
TİİÖV	—	Basic facilities used for research and works

It is clear from obtained equation, all structured three economic mathematical dependence R^2 is selected correctly. But all three economic mathematical dependence the statistical significance number of the staff dealing with research and dependence is low ($p \leq 0,1$; $p \leq 0,05$; $p \leq 0,01$ is not paid) and negative sign.

It shows that the role of number of staff dealing with the research is lower in executed scientific technical works for objective reasons. It is explained as follows: 1. Their potential is not fully used; 2. In order to realise their potential the favourable environment, conditions and initial capital are not at the same level; 3. Application of obtained and will be obtained scientific achievements, inventions are very weak in strong competition in globalization and international free economic conditions.

At the same time although in equation (2) the volume of basic facilities are many but as a result of not using fully the statistic significance of this factor is low and negative sign. For this reason it was removed from next equation.

So, For any successful economy, particularly in today's quest for knowledge based economies, science, technology and engineering are the basic requisites (Samiksha S. 2015).

In broad terms, there are two possible goals for engaging the policy process and two primary strategies for achieving those goals. The goals are either to improve policies that affect science (policy for science) or to improve policies that can benefit from scientific understanding (science for policy) (*American Meteorological Society. 2006*).



Finally, I hope the decree Strategy Road Map which was signed by president of Azerbaijan Republic in december, 06, 2016 covered the 11 sectors of economy will direct to increase the indicators of our research too.

References

- American Meteorological Society. 2006. The Role of Science in Society. <https://www.ametsoc.org/ams/index.cfm/policy/learn-the-ropes/science-and-society/the-role-of-science-in-society/>.
- Angela Merkel, The Role of Science in Sustainable Development. Science 17 Jul 1998:Vol. 281, Issue 5375, pp. 336-337 <http://science.sciencemag.org/content/281/5375/336>
- Arrow, K. 1962. "Economic Welfare and the Allocation of Resources for Invention. Princeton, 609-626, Princeton University Press.
- Lee-Roy Chetty. 2012. The Role of Science and Technology in the Developing World in XXI Oct 3, 2012 Ethical Technology <https://ieet.org/index.php/IEET2/more/chetty20121003>
- Machlup, F. 1984. *Knowledge: Its Creation, Distribution, and Economic Significance*. vol. II, *The Economics of Information and Human Capital*. Princeton University Press, Princeton.
- Mayr, E. 1982. *The Growth of Biological Thought: Diversity, Evolution, and Inheritance*. The Belknap Press of Harvard University Press, Cambridge, MA.
- Romer, P. 1986. "Increasing Returns and Long-Run Growth," *Journal of Political Economy* 94, 1002-1037.
- Role of Science and Technology in Development of Ghana. <https://www.ghanaweb.com/GhanaHomePage/features/Role-of-Science-and-Technology-in-Development-of-Ghana-254448>
- Sakyi, Kwesi Atta. 2012. Role of Science and Technology in Development of Ghana. <https://www.ghanaweb.com/GhanaHomePage/features/Role-of-Science-and-Technology-in-Development-of-Ghana-254448>
- Samiksha S. 2015. Importance of Science and Technology in National Development – Essay. <http://www.yourarticlelibrary.com/technology/importance-of-science-and-technology-in-national-development-essay/8563>
- Варавва М. Ю. К вопросу о роли науки и научных знаний в теориях новой экономики российских экономистов // Известия ОГАУ. 2007. №16-1. URL: <http://cyberleninka.ru/article/n/k-voprosu-o-rol-i-nauki-i-nauchnyh-znaniy-v-teoriyah-novoy-ekonomiki-rossiyskih-ekonomistov> (дата обращения: 25.05.2017).
- <http://gtmarket.ru/ratings/scientific-and-technical-activity/info>
- <https://www.nsf.gov/statistics/seind14/>
- www.stat.gov.az



The Role of Translation Studies and Translation Theory in the Far East

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Abstract

The translation activity, which began to transform into a discipline with James Holmes's, seminal paper entitled "The Name and Nature of Translation Studies" in 1972 has increasingly established relationship with such disciplines as linguistics, literature, sociology, philosophy, anthropology, archeology, and so on. In terms of this relationship between Translation Studies and these disciplines, this academic field of study has also evolved into an inter-disciplinary branch of science over time. As a result, scholars have introduced many different theories and approaches under linguistic, cultural, sociological and technological revolutions and turns within TS. The foundations of translation studies have begun to be established in this way. Upon considering overall TS literature, one can see that most of the translation theories and approaches are actually western-centered. In fact, it may be because the West is in a sense more advanced than the East in terms of scientific developments. But did only the Western approaches have an impact on the translation in terms of its gaining a scientific status? What is the position of far eastern countries like China on translation and translation studies? What is the contribution of both west and far eastern scholars to the far east in the advancement of translation studies? Have the far eastern scholars ever put forward any theories or approaches to contribute to the translation process, its function, and production, like their counterparts in the west or have they at least conducted studies in this respect? In this geography, what kind of translation problems do scholars deal with and what are the similarities and differences between East and West? Based on these questions, the study questions the place of translation studies and translation theories in the far eastern countries such as China and makes a scrutinization on how they are received in these geographies. It is hoped that this study will contribute to the emergence of new paradigms in order to support the progressive structure of translation studies in parallel with the translation needs in the far east.

Key Words: Translation studies, translation theories, translation approaches, far east, China.

Introduction

Thanks to the American / Dutch translation scholar James Holmes's seminal paper entitled "The Name and Nature of Translation Studies" held in Copenhagen in 1972 and presented at the International Linguistics Congress the translation activity, which has become the tool of communication in at least two different nations and cultures for commercial, sociological, cultural, political and military purposes for many years, has now begun to be considered a different discipline being more than just a linguistic activity. And the name of the discipline is currently defined as Translation Studies or Translatology in some sources. At first, the translation activity was studied under the umbrella of applied linguistics and comparative literature. However, over the second half of the 20th century it has evolved from linguistic turn to cultural, sociological, pragmatic and nowadays technological turn in terms of the relations it has established with linguistics, literature and cultural studies. TS can also be called as an interdisciplinary discipline in terms of its interdisciplinary relationship with even computer technologies¹.

However, it can be quite easily observed that most of the pioneer scientists and translation theorists playing a role in the acquisition of this scientific identity of translation studies are Westerners according to the related works on translation studies in foreign languages and the scientific discourses of translation are developed within this scope. However, there have been many researches and studies in the field of translation studies, especially in the Far East countries such as China in recent years. And within this framework there are some articles, papers, dissertations, books and project-level studies on translation studies. Therefore, the following questions may

¹ See Snell Hornby, 2006; Munday, 2016; Odacioglu, 2017.



come to mind at this point: What is the point of view of the Far East countries in translation and translation studies? In which areas and subjects are the studies carried out? What is the impact of the Far East on the development of translation studies?² Have Far Eastern scientists ever developed or are developing theories or theoretical approaches to translation studies? Based on these research problems, the studies of the Far East scientists in the field of translation studies and the approaches of the western writers regarding the translation studies in the far east and their related studies were examined in this paper. And answers to the questions such as how the Far East's approach to translation and translation studies is and how they are defining this discipline have been tried to be found.

Therefore, the method used in this study is document review and descriptive research. It is hoped that the research will fill the gap which we believe to be incomplete in the literature and make a contribution to the field of translation studies in terms of evaluating the point of view of the far east within translation studies. In addition, a bibliography was made in this area by referring to the sources written in the field of translation studies in the Far East. Related sources were given in the references of our study.

History of Translation in the Far East, Translation Theories, Approaches, Translation Strategies and Translation Problems, An Evaluation on Translation Education and Fields: The Chinese Case

As emphasized earlier, researches on translation studies such as translation approaches, theories, strategies and problems remain relatively untouched in the far east compared to research studies in the West. In addition, most of the discourses that are dominant in the literature of translation studies are European-centered³. For example, most of the researches on the history of translation in the case of China are often placed second in new sources. However, George Steiner's 1975 work *After Babel: Aspects of Language and Translation* and Anthony Pym's *Method in Translation History* contains some references and brief information about the history of Chinese translation. In addition, Eugene Eoyang (1993) uses the term “no man’s land” to indicate that the history of translation in China has not been sufficiently addressed in Western translation studies (Xia, 2006: 147-148). Xu Hun, a renowned translator and scientist in the Chinese special issue of *Meta* magazine, divides the Chinese translation history into four different periods:

1. The period in which sutras were translated
2. The translation approach in the Ming Dynasty and Qing period
3. The translation approach in the early twentieth century
4. The translation approach during the People's Republic of China (Xia, 2006: 149).

Eva Hung breaks down the history of translation in China into three periods:

1. The period in which the Buddhist sutras were translated
2. Jesuit translation activities at the end of the Ming dynasty period
3. The period in the second half of the nineteenth century, when the Western sources were translated into Chinese, which paved the way for finding out what was happening in the West (see Xia, 2006: 149).

Luo and Lei handled the translation history in three stages in terms of translation practice:

² In this study representing the Far East, the Chinese example was used. However, even only the Chinese example can give information about the general profile of other Far East countries compared to the West, and translation studies can become a matter of interest and enable more detailed research in the case of different Far East countries. For example, thanks to the literature review in the case of Japan, some studies have been identified such as Yukari Fukuci Meldrum's article titled *Japanese Translation Studies: A New Discipline* and Ásdís E. Benediktsdóttir's study called *Japan and the West: A Journey through Time and Translation* (2012), and Judy Wakabayashi's paper titled “Japanese Translation Historiography: Origins, Strengths, Weaknesses and Lessons” and Nana Sato Rossberg and Judy Wakabayashi's book called *Translation and Translation Studies in Japanese Context* (2012).

³ According to Wang, in contrast to Western approaches dominated by European-centered discourses, translators in China conduct studies contributing to world literature in the context of literary translation (Wang, 2015: 46). In addition, European-centered discourses are frequently used by those supporting radical relativism and postcolonialists to criticize non-Western scientists (Fung Chang, 2018: 463).



1. The stage in which Buddhist texts were translated by foreign monks
2. The stage in which Chinese and foreign translators translate these texts together
3. The stage in which Chinese translators undertake the translation process alone (Luo and Lei, 2004: 20).

In our ever-globalizing world, academic research in China in the field of translation studies is now starting to gain momentum and the isolation against the West is now decreasing in this respect. Especially with the interaction of China with the outside world and different cultures, there has been an unprecedented rise in translation studies in these lands. While Chinese translation scholars and translators do not completely turn their back to the West, they tend to constantly learn from the West in the field of translation studies and also play an active role in the development of the discipline with their translation theories⁴, approaches and discourses. However, compared to the West, it can be seen that the Chinese translation scholars and translators are more interested in the translation practice and process, and the translation theories and approaches that they use and apply are mostly translation process-oriented approaches⁵. In other words, Chinese translation scholars and translators prefer to explore the field rather than exploring the different aspects of translation and rather than conducting more research on defining translation from different perspectives (Sun, 2012: 32 and 35). Because the world of Chinese translation studies has established a self-working system. In 1983, Luo published an article entitled “我国自成体系的翻译理论” (“Our Country's Translation Theory of Its Own”). In this article, he mentioned the dissatisfaction with the impact of contemporary translation theories on China. He also stated that the Chinese translation theory has a distinctive character in the homeland and their own theories and approaches are in a unique position in the world of translation and that Chinese scientists should not belittle themselves compared to the West (Zaixi, 2009: 2-3). In fact, Luo, as in the case of European-centered discourses, focused on the Chineseness of Chinese translation theories in order to create a different discourse against the West (cf. Zaixi, 2009: 5). Similarly, Gui stated in 1986 that Chinese Translation Studies should be established. Fang, Sung, and Zhang, instead, have focused on improving the existing translation studies by highlighting the distinctive features of the Chinese translation world (see Zaixi, 2009: 6).

From this point of view, the main goal in the development of translation studies in China can be stated to be the realization of scientists 'and translators' own methods and theoretical systems, and in this context to present a distinctive character of China. Thus, a cultural policy⁶ has to be created and at the same time, answers to translation problems related to cultural and political changes have been sought. For these reasons, traditional Chinese translation theories⁷ tend to have improved and go on improving by taking these points in consideration. Translation theories and approaches in China for centuries⁸ have been based on the trio of loyalty, lucidity and elegance (1889), which Yan Fu⁹ mentioned in the preface of *Evolution and Ethics*, which he translated from T.H Huxley (Sun, 2012: 36).

In parallel with this, arguments alternated between free vs. faithful translation strategies especially in the translation of religious texts in China, like the West for centuries. The arguments of the first translators on these

⁴ Chinese translators tended to produce translation theories from their translation practices (Luo and Lei, 2004).

⁵ They can also be considered as individual-centered approaches. The process is carried out by the individual (Hee Kim, 2009).

⁶ Chinese scientists conducted extensive research into translation studies in China by focusing on cultural studies, intercultural communication, and cultural linguistics. And the widespread cultural philosophy in China has had a significant impact on translation studies. In addition, traditional translation studies should be considered in a closed, synthetic and inter-disciplinary system in the case of China (see Xia, 2015: 2901).

⁷ At this point, the question can come to mind as to whether translation process-oriented Chinese Translation Theories, can become a paradigm just like the Western Translation Theories. While it is necessary to carry out a detailed research to answer this question, it can be claimed based upon the information in the text that the methods and strategies followed by Chinese translators in the translation process can be evaluated within the scope of translation theories and these approaches are a paradigm as long as they are scientific as mentioned here.

⁸ Another translator Xuan Yang (602- 664) translated Buddhist texts from the Sanskrit and contributed to Chinese culture, literature and language. Xuan Yang applied a number of approaches in the translation process such as omission, changing, splitting, joining, borrowing, adding, etc. (Mei, 2003).

⁹ What Luo and Lei stated are mentioned in the third stage of Chinese translation process.



approaches can be seen as the beginning of the translation studies (yi xue) in China. Apart from this translation phase, which was mentioned by Luo and Lei as the first stage¹⁰, Dao Ann's¹¹ reflections on “Wu Shi Ben”(the five cases in which the meaning of the original text was lost¹²) can be seen as the first approach in China within TS. By pointing out the cases when the original text should not be translated, Hsuantsang was the first to mention the issue of “untranslatability”. Fa Yun reflects his ideas on naturalization and alienation in the preface of his book *Collection of Translation of Sanskrit Names* (Luo and Lei, 2004: 20-21).

The second phase, which Luo and Lei indicated, began with the arrival of the Italian missionary Michael Ruggieri in 1580 on the Canton coast. This period lasted 200 years and the translation of Buddhist texts has been replaced by the translation of texts of Christianity¹³, and texts of science and technologies. While the missionaries were in China, a total of 300 works were published, of which 120 were on science and technology. Chinese translators who work with foreign missionaries to translate technical and scientific texts include Xu Guangqi (1562-1633), Li Zhizao (1565-1630) and Li Tianjing (1579-1660). Xu Guanqi is an important translator who introduced Western science to China. According to him, one must be informed about Westerners in order to catch up with them. Therefore, the works of Western writers need to be translated. However, translations have failed due to the traditional understanding of that time (Luo and Lei, 2004: 20-21).

The third stage began with the opening of China in the middle of the nineteenth century against the imperialist Western powers. The intellectuals in China, a country which was invaded by the West have understood that their country was no longer the only central kingdom in the world, and they therefore began to obtain information from the Western countries in order to strengthen their nations. The first translations included social and military texts to this end. Then the literary translation began to develop. In this way, Chinese intellectuals have had easily access to Western culture and new ideas. Famous translators of this period include Lin Shu (1852-1924), Yan Fu (1853-1921) and Lu Shun (1881-1936). Lin Shu, who lacks a foreign language competence, has written countless literary texts in Chinese, based on what he heard from the interpreters having rendered the western sources for him. Thus, Daniel Defoe's *Robinson Crusoe*, Charles Dickens' *David Copperfield*, Alexander Dumas' *a Dame and Cornelias*, and Miguel Cervantes' *Don Quixote* were translated into Chinese (Luo and Lei, 2004: 21-22).

In the twentieth century, Yan'an Foreign Languages School was opened in 1944 to train translators and interpreters in the fields of political, military and foreign relations. This school is the first of its kind in that the first official translation courses in China are given there (Luo and Lei, 2004: 23).

However, it was only in the 1950s that it became mandatory for translation studies in China to realize a theoretical breakthrough. Dong Qiusi¹⁴ suggested in his article titled “Lun fanyi lilun de jianshe” (“On the construction of translation theory”) that translation studies could be a discipline and claimed that China had a long history of translation practices despite its systematic lack of theoreticalization., Tan Zaixi also stated that China was not at all behind other countries in the 1950s during the first structuring of translation studies. In fact, Qiusi's claims have attracted everyone's attention, and the idea that translation research in China might be even

¹⁰ These stages are briefly mentioned in three steps above in order to see the translation process in Chinese translation history.

¹¹ Dao Ann is a cleric and translator who translates Buddhist texts into Chinese through translation (<https://www.britannica.com/biography/Daoan>)

¹² These five cases are as follows: translation should not be done on condition that the original text is a text that should remain confidential (for example magical books), and that the word in the original text is vague, that the equivalence of word in the source language does not exist in the target language, and there is already any transliterations that have already been rendered and accepted in the target language and there is no formal equivalence between the source and the target text, (Mei, 2003: 61).

¹³ An example from the current literature on this is: Toshikazu Foley in *Biblical Translation in Chinese and Greek* (2009)

¹⁴ In China he is the first person to consider translation as science (Luo and Lei, 2004).



more advanced than the West has emerged. However, as China has entered into a major social, political turmoil¹⁵ and due to the break-up of intercultural links that have begun to develop recently, developments in translation studies have decreased and China has lagged behind the West. From the 1980s onwards, a period of self-criticism has begun and some of the leading sources of both linguist and translator scholars such as Nida, Newmark, Catford were introduced to the world of Chinese translation studies by adopting a modest approach to translation studies in the West. With this process, works have been started to establish an independent discipline in China. In 1987, accordingly, *the Chinese Translators Journal* launched a heated debate on the status and importance of translation studies. (Sun, 2012, 36-37).

Following the introduction of Nida, Catford, Newmark in Chinese translation studies, the translation theories and approaches of Bassnett, Lefevere, Hermans, Even Zohar and Toury, who are among the other famous translation scholars (e.g. polysystem theory, manipulation theory, norms, feminist criticism, as well as the post-colonial translation theories) entered into Chinese translation studies. Most of these theories, however, have not been applied in practice and criticized in China. The reason for this is that some of the translation theories and approaches would not work in the real-time translation process (cf. Sun, 2012: 38-39).

At the 1987 symposium, Zhou Qingbo, Li Ding, Chu Xiao, and others discussed how to build Chinese Translatology in a psychological and philosophical way. In another symposium held two months later after the symposium in 1987 Liu Miqing, Tan Zaixi, Fang Mengzhi and others dealt with the same topic by using linguistics, social semiotics, communication researches etc. and they tested their findings in terms of theoretical applicability of translation to be accepted as a science. In 1990, Liu Miqing published a work titled *Studies on Translation Today*. However, it can also be stated that Chinese scholars have benefited from linguistic theories in the theory and practice of translation. Wang Bingqin (1987) also published the first academic article related to this. The aim of Bingqin was to investigate and uncover the rules about the internal structure of a text under the light of text linguistics. All samples of Bingqin, who analyzed many texts through textual analysis, were depictions and quotations from the books of famous scientists. As he did not analyze such texts as dialogue and so on, Bingqin could not find more examples for his research, and his research was largely limited to the Classical Chinese rhetoric approach (Luo and Le, 2004: 26).

Scientists like He Ziran have also conducted pragmatic research in translation. In his article published in 1992, Ziran proposed concepts such as pragmatics- linguistics and sociopragmatics to investigate the pragmatic effect and use of language in the field of translation. Discussing the possibility of applying a pragmatic approach between the source and target text, Ziran's aim was to create a pragmatic equivalent effect between the two texts. Ke Wenli (1992) also carried out a wide range of research into semantics and pragmatics. Only in this way, understanding and explanation in the translation could be provided and problems in the translation process could be solved. In addition, it can be said that Luo Xuanmin's research on the textual level of translation is an important effort in dealing with translation problems. According to him, there are two translation units. The first is transfer; the other is for analysis. Thanks to this approach, an efficient response can be given to the question of "What is the translation unit?". In fact, linguists / translation scholars such as Nida and Barkdurov could not find an answer to this problem (Luo and Lei, 2004: 27).

In parallel with these, it is also observed that some scientists state the integrated use of Chinese and Western translation theories¹⁶ in order to increase the developmental potential of translation studies. According to this,

¹⁵ Cultural Revolution (see also Luo and Lei, 2004).

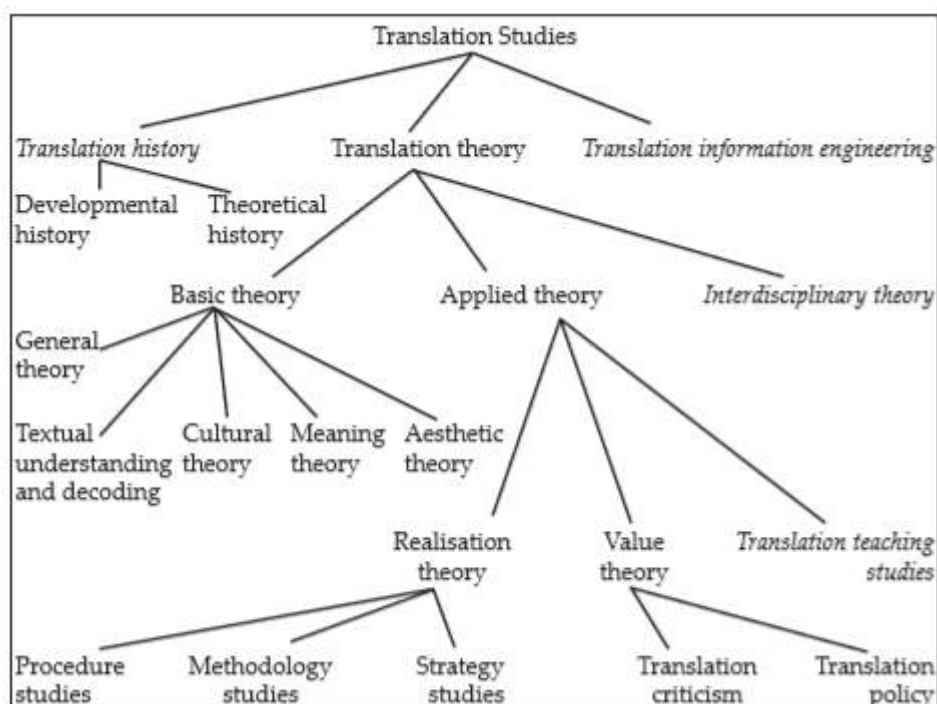
¹⁶ Pym's (2014) book entitled *Exploring Translation Theories* discusses in detail the Western translation theories and approaches.



translation studies in China may be more possible by reinforcing both Western and Chinese translation theories¹⁷ (Sun, 2012: 40)¹⁸. For this purpose, researches on post-colonial translation theories and approaches were introduced to the world of Chinese translation studies. The translations of the works of Western translation scholars such as Michael Foucault, Gayatri Spivak, Sherry Simon and Lawrence Venuti were published in 2001 in an anthology called *Yuyan yu fanyi de zhengzhi (Language and the Politics of Translation)*. From the 2000s on, trending topics such as feminist translation theories, gender in translation¹⁹ and so on have begun to show a great reception in the literature of Chinese translation studies. There are more than 200 books in the literature of Chinese translation studies including the translations of foreign sources²⁰. Some of these are translations of Western sources. (Sun, 2012: 44-45).

In addition to these developments, Zhang Meifang also commented on Holmes's Translation Studies in the light of translation studies in China and expanded his research on Descriptive Translation Studies and Applied Translation Studies. In addition, Liu Bgqin published a work called *Translation Teaching: Practice and Theory* (2003), making Holmes's current map more detailed:

Figure 1: The reinterpreted version of Map of Holmes by Liu (Youlan: 2005: 190)



It is
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map

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that this
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¹⁷ In the literature, there is a specific theory of translation put forward by Qian Zhongshu ("Theory of sublimity"). This theory provides specific tools for achieving this goal by providing an ideal aim in the field of literary translation against the theory of loyalty, which is the traditional Chinese paradigm. Zhongshu has developed a solid / comprehensive theoretical basis by examining the theory, nature, function, practice, and artistic characteristics of ideal literary translation, based on Chinese translation theories and practices, in the context of comparative research. Thus, he broke the classical loyalty approach by aiming the literary translation to follow the artistic one. For detailed information about the theory, it can be referred to the articles included in the references (Chengfa, 2007).

¹⁸ In 1996, the first symposium on Translation Education was held. More than 100 trainers and translation graduates gathered to discuss how translation studies could be improved (Luo and Lei, 2004: 23).

¹⁹ An example from the current literature: Mengying Jiang's article entitled "Female Voices in Translation: An Interrogation of a Dynamic Translation Decade for Contemporary Chinese Women Writers, 1980–1991" and Zhongli Yu's book called *Translating Feminism in China: Gender, Sexuality and Censorship*.

²⁰ Roberto A. Valdeon's study called *Chinese Translation Studies in the 21st Century* (2017), an example of translation studies in China, was published by Routledge.



reinterpreted by Liu in the light of the history and the needs of the Chinese translation studies and also the translated fields. In addition, according to Luo and Yei, China has nowadays been rapidly modernizing and opening to the outside world and adopting an economic reform policy. In this respect, as in other disciplines developing in China, the importance of translation studies is also rapidly increasing, because it is not possible to communicate across cultures in a globalizing world without the presence of translation. For these reasons, translation courses are very popular in Chinese universities, and translation is a process that many scientists and graduate students constantly apply (Luo and Lei, 2004: 20).

In addition to the evaluation of these points in translation studies in China, it can also be argued that translation education has reached a different dimension than in the twentieth century. To this end, Lei provides up-to-date information on the status of translation education and discusses the importance of translation, teaching materials, and training of the trainer. As a teaching method, Lin Zhang distinguishes translation from translation as a teaching goal, suggesting that students should know about translation theories and translation strategies. Similarly, other translation trainers also work on testing, teaching materials, and interpreter education (see Luo and Lei, 2004: 24). It should also be noted here that Dong mentioned the Chinese translation competencies that shape the translation training. These can be listed as follows: 1. Language-discourse-pragmatic competence 2- Cultural competence 3-Strategic competence 4- Instrumental competence 5-Thinking competence and finally 6- Personality in systematic coordination (Dong, 2017: 39, cf. Wang and Wang, 2008). This model has been developed based on Western translation skills and is similar to the PACTE model (2005). Jiang and Quan (2002) also refer to a sub-competence known as aesthetic competence. According to this, an individual with an aesthetic sense has the capacity to achieve image perception, perception of integration and other psychological mechanisms in relation to aesthetic thinking power. The idea of aesthetics competence is based on the work of Liu in 1987 (Dong, 2017: 39-40).

Another point to be mentioned about translation training is the discussion of issues related to translation education and theories and the discussion on issues such as the translation training program design, the content of textbooks, and the training of trainers in the translation education symposium held in Hong Kong in 1997. The result is that the theories of translation education in China were still far from philosophical thought and practically weak. Translation studies should be carried out on a descriptive, theoretical and practical basis for these reasons. In addition, the research conducted should be carried out on a scientific, artistic and analytical synthetic level. It is also necessary to make detailed research on translation rules and translation skills and to make new researches in order to reach new findings in terms of translation method and translation history, only in this way the translation practice can be improved and the quality issue, which is one of the biggest problems of today, can be improved (see also Luo and Lei, 2004: 24).

Upon taking a look at the articles, books, papers and projects of Chinese translation scholars and translators, in which they work as a coordinator or as a researcher, as mentioned above briefly, it is also observed that the translation fields encompass feminism, postcolonialist period, literary translation (such as poetry translation, rhetoric), computer technologies, machine translation technologies, localization (especially game localization²¹), etc²². All these movements, as Chesterman has pointed out, contribute to the development of translation studies in a universal level as well as the situation and reflections in the West (see Chesterman, 2014: 83).

²¹ Minako O'Hagan and Carmen Mangiron's book (2013) titled *Game Localization Translating for the Global Digital Entertainment Industry*.

²² Sin Wai's article called "Approaching Localization" (2013) and his book entitled *The Routledge Encyclopedia of Translation Technology* (2014)



Conclusion

In this study, the status of translation theories and translation studies in China and the different views of the Chinese world on this issue have been handled through examples of translation practices, approaches, strategies and theories. And it is observed that although the world of Chinese translation studies has not completely turned its back to the West, it follows the literature of Western translation studies, but it also reflects its own theoretical and individual approaches in translation. In other words, some scientists and translators have criticized the reception of only the western translation theories among the contemporary theories of translation, emphasizing the 'Chineseness' of Chinese translation theories. Some have also adopted approaches to integrate the West and the Far East, while others have exhibited their experience in the translation process. At the end of this study, it can be stated that answers to the questions such as what is happening in the world of translation studies in the Far East?, what is the status of translation studies in these lands?, is there a contribution of Chinese translation studies and translation theories to general translation studies? Etc are thought to have been given. In fact, in order to maintain the inter-disciplinary structure of translation studies and to keep this field dynamic, it is better for both the Western and Far Eastern translation scholars and even translators to work together and also to share the theories and approaches they produce with each other in the conferences and symposiums rather than to impose them on each other. Last but not least they also need to make discussions about the results of which theories should be employed and in which context.

References

- "Dao Ann" <https://www.britannica.com/biography/Daoan> 20.05.2019
- Chengfa, Yu (2007), "On Qian Zhongshu's Theory of Sublimity", *Perspectives: Studies in Translatology*, 14:3, p. 214-22
- Chesterman, Andrew (2014), Translation Studies Forum: Universalism in Translation Studies", *Translation Studies*, 7:1, p.82-90
- Dong, Dahui (2017), "Knowledge, Skills and Resources in Chinese Translation", *The Routledge Handbook of Chinese Translation* (ed. Chris Shei, Zhao-Ming Gao), p.37-57.
- Fung Chang, Nam (2018), "Voices from the Periphery: Further Reflections on Relativism in Translation Studies", *Perspectives: Studies in Translation Theory and Practice*., 26:4, p. 463-47
- Hee-Kim, Shin (2009)"Towards a People Centered Theory of Translation", *Perspectives: Studies in Translatology*, Vol. 17, No. 4, p.357-272.
- Luo, Xuamin ve Lei Hong (2004), "Translation Theory and Practice in China", *Perspectives: Studies in Translatology*, 12:1, p. 20-30.
- Mei, Cheng (2002), "Xuan Zang's Translation Practice", *Perspectives: Studies in Translatology*, 11:1, p.54-62
- Munday, Jeremy (2016), *Introducing Translation Studies: Theories and Applications*, Routledge, London and New York.
- Odacıoğlu, M. Cem (2017), *Çeviribilimde Yerelleştirme Paradigmasına Doğru (Towards a Localization Paradigm in Translation Studies)*, Gece Kitaplığı.
- Snell Hornby, Marry (2006), *The Turns of Translation Studies*, John Benjamins Publishing Company Amsterdam/Philadelphia.
- Sun, Yifeng (2012), "The Shifting Identity of Translation Studies in China", *Intercultural Communication Studies* XXI: 2 (2012), 32-52.
- Wang, Zuoliang (2015), *Degrees of Affinity Zuoliang Wang Studies in Comparative Literature and Translation*, Foreign Language Teaching and Research Publishing Co., Ltd and Springer-Verlag Berlin Heidelberg.
- Xia, Lia (2006), "Institutionalising Buddhism: The role of the Translator in Chinese Society", *Translation Studies at the Interface of Disciplines*, (edited by Joao Ferreira Duarte, Alexandra Assis Rosa and Teresa Seruya, p. 147-160, John Benjamins Publishing Company.



- Xia, Meng (2015), “Translation and Culture in the View of Contemporary Chinese Scholars”, *Journal of Siberian Federal University. Humanities & Social Sciences* 12, p.2901-2907.
- Youlan, Tao (2005), “Translation Studies and Textbooks”, *Perspectives: Studies in Translatology*, 13:3, p.188-204.
- Zaixi, Tan (2009), “The ‘Chineseness’ vs. ‘Non-Chineseness’ of Chinese Translation Theory: An Ethnoconvergent Perspective”, *Translator: Studies in Intercultural Communication*, 15(2), p. 283-304



Recommendations for Translation Students on Subject-Matter Specialization in Translation Based on Views of Experts

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Abstract

During the translator education, students are expected to have a bilingual and cultural competence, as well as gain a subject-matter specialization in their fields of interest. However, the concept of specialization is often used in a wide sense within translation studies. As a result, there are many areas that can be classified as a field of specialization among thousands of specialized areas. Thus, it is necessary to redefine the concept of subject-matter specialization in translation, to describe the path to specialization in any field in translation and to make students of translation studies well aware of the course of the specialization process. At this point, such questions arise: should the courses on subject matter specialization be offered by the professors of the field, or by translation academics who have translation competence and theoretical knowledge of the field but do not have any experience in the market on these fields of specialization or do not graduate from related departments to gain specialization on these fields? Or should professional translators who work in the field offer these courses? Thus, the aim of this study is to address the topic of subject-matter specialization in translation under the light of above-mentioned questions and to make recommendations particularly to the translation students for their courses on specialization. In this respect, the views of professional translators in the market as well as the academicians and experts working in the fields of Translation Studies, Philosophy, Archeology and so on were taken in the study and the obtained data were subjected to qualitative analysis.

Keywords: translation, subject-matter specialization, expert views, qualitative analysis, recommendations.

Introduction

In translation and interpreting programs, students are expected to develop language and culture skills throughout their undergraduate program, as well as to attain their subject-matter specialization in their fields of interest, and this is especially essential upon taking market conditions into account. However, thanks to the research, it has been found out that the concept of specialization is often used in a wide sense in the literature.

The aim of this study is to reconsider the concept of subject-matter specialization in translation. However, in reconsidering the concept, first of all, it is important to describe the course of the specialization processes by describing the ways in which translation students specialize in any field of translation. Some questions may come to mind at this point: should the courses on subject matter specialization be offered by the professors of the field, or by translation academics who have translation competence and theoretical knowledge of the field but do not have any experience in the market on these fields of specialization or do not graduate from related departments to gain specialization on these fields? Or should professional translators who work in the field offer these courses?

In the light of the above-mentioned objective and in the light of these questions, some recommendations have been made through the expert opinions, especially to the translation students, in order to understand the concept of specialization more clearly. Accordingly, the data were obtained through the expert opinions of the academicians in the departments of Translation Studies, Philosophy, Archeology and so on. and from the experts working in the language sector and also both translators and interpreters who provide professional services in the market and then the data gathered were subjected to qualitative analysis.



In the evaluation of the data, qualitative analysis and recommendations form the core part of the study, while the first part focuses on the areas of expertise, specialization and subject area specialization in translation. Thus it eliminates uncertainties in order to support the second part.

The concept of subject-matter specialization in translation, specialization and fields of specialization

The concept of specialization is defined according to the Cambridge dictionary as “*a particular area of knowledge or the process of becoming an expert in a particular area*”¹. In another source, the concept is defined as the individual's experience and accumulation in a specific field of knowledge (see Teodoridis, Vakili and Bikard, 2017). The concept can also become more clear by analyzing the definition of specialty language developed by Öncü. According to him, the specialty language is different from the common language and the specialty language has special terms and a certain syntax (Öncü, 2013: 78).

Upon examining the different definitions of the concept in the light of the above explanations, it is observed that the content is quite comprehensive. Upon using the concept in a wide sense in translation education, it will not be wrong to mention thousands of specialized areas that will not actually fit into an education curriculum. Therefore, it is difficult or even impossible for translators and interpreters to master thousands of specialized areas in a four-year training program or to present these fields to students even at the introductory level. In the courses, it is aimed that only some specialized areas that will be useful for the translator or interpreter after graduation can be introduced (such as economics, press, medicine, law, software / web / game localization, literature, technical fields, multimedia texts², tourism texts, audiovisual translation, advertising texts, human texts³, etc.) and some translation activities may be carried out by students so as to make them familiar with those fields of specialization.

At this point, it is worth mentioning the difference of expertise and specialization. Because expertise is an endless process and it is continuously acquired. As in other professions, translator students increase their expertise knowledge even after their graduation after receiving the necessary specialist training in the translation program, in the institutions and environments where they work or even with their own individual efforts and experiences. The stage in which expertise knowledge is continuously increased and improved can be mentioned as specialization or specialization process. This process starts during the translation education and continues for four years and continues even after graduation.

The area of expertise in translation, which begins during the translation training, is based on the experience of the translation students in a particular translation field through the translation of different texts and the acquisition of specific terms and jargons⁴. For this reason, it is necessary to distinguish the concept of field expertise from the general concept of translation. Parallel to this, according to Roberts, field expertise in translation differs from the translation of a general text because it consists of terms specific to that field⁵ and requires expertise in a particular field. In addition, Roberts categorizes specialized texts as scientific-technical, socio-economic and political texts. Because these texts require more intensive knowledge than other texts in the general category. (Roberts: 1988: 73). For example, the translation of an everyday dialogue can be an example of a general translation.

¹ <https://dictionary.cambridge.org/dictionary/english/specialization> Accession: 18.06.2019.

² See also Gavrilenko, 2018.

³ http://www.aelfe.org/documents/27_24_Solis.pdf Accession: 22.06.2019.

⁴ Cf. Fiola, 2013: 60.

⁵ See also. Postolea, 2016: 56.



However, Popescu and Cohen Vida stated in one of their studies that the translation education aiming to prepare the future translators well-equipped with the necessary skills for the translation market remains too traditional and that the translation competence mostly covers the general translation. According to them, the specialized texts in translation are constantly changing and increasing due to the today's changing needs. For this reason, the authors stated that this type of translation is an important component in professional translation education and that the translation of specialist texts may have traces of the general translation. However, the main difference is that the translation of these texts requires the translator to conduct field-specific documentation⁶ and terminology⁷ research (cf. Lethuiller, 2003; Popescu and Cohen Vida, 2015: 1195-1196).

In addition, translation trainers should make the necessary effort to enable translation students to acquire the skills such as discourse analysis, critical text analysis, translation text analysis, language competence, cultural competence, cultural intelligence, emotional intelligence, research competence, writing skills, technical literacy, media literacy authorship, digital literacy, field knowledge, subject-matter knowledge and so on, in order to contribute to the process while attaining subject-matter specialization in translation,. (cf. Fiola, 2003: 62 and cf. Sharkas, 2015)⁸.

Specialization courses in translation programs generally focus on linguistics and foreign language competence⁹. And the main point here is ignored. Translator candidates can become only semi-experts in the field of economy, technology, law, medicine, economics, localization, press, technical, scientific and so on. This is generally the method of traditional translation education (cf. Laursen and Pellón, 2012: 45).

However, it is necessary to state that the quality of the education given in translation programs is directly proportional to the effective use of students' creative powers. While it is possible for the students to specialize in a specific subject and text type after graduation thanks to subject-area specialization, it is not enough just to acquire the foreign language competence or to be able to translate the texts in all subjects and types (see Yücel, 2007: 154). Because the translator or interpreter cannot fully specialize in every field. For this reason, it is important for the candidates of translators to specialize in a specific field of translation in terms of the translation quality and a high-quality translation project.

A qualitative analysis of expert opinions on the specialization courses for the students of translation studies and recommendations to the translator and interpreter candidates

In this section, expert opinions about specialization courses have been given and the data gathered were subjected to qualitative analysis and some suggestions have been made in the conclusion section. The questions of should the above-mentioned courses¹⁰ on subject matter specialization be offered by the professors of the field, or by translation academics who have translation competence and theoretical knowledge of the field but do not have any experience in the market on these fields of specialization or do not graduate from related departments to gain specialization on these fields? Or should professional translators who work in the field offer these courses? have been tried to be answered in this way.

⁶ Hradecká, 2010

⁷ Cf. Mellinger, 2019. See also. Benítez, 2009

⁸ See also. Armăsar, 2014 and Paradowski, 2016

⁹ Actually the aim is not gain foreign language competence but to ensure that the foreign language plays an important role in attaining specialization (See. Tosun, Akın and Şimşek, 2015).

¹⁰ Specialized areas can cover such fields as law, medicine, social science texts, press, economics, tourism, philosophy, archeology etc.



Questions to ask experts for specialized courses

- Which field do you work in?
- What would you recommend to young translators to develop themselves in their area of expertise?

Expert opinions

Within the scope of the above questions, 15 participants from the fields of philosophy, archeology, linguistics, social sciences, translation studies, psychology, sociology, English language and literature were interviewed and firstly the comments of the participants and then the qualitative analysis were given.

Participant 1¹¹ (Philosophy Lecturer):

"History of general philosophy is taught in undergraduate education in the Department of Philosophy. However, there are different fields such as history of science, history of philosophy or systematic philosophy and logic during a Master's degree and PhD programs. And specialization can be realized in one of these areas".

Analysis: Participant 1 did not fully respond to the answers asked above. He spoke only of his area of specialization and the subjects covered in undergraduate and graduate programs.

Participant 2 (Philosophy Lecturer):

Although I participated Locke classes during my undergraduate studies, I was not able to specialize in Locke in undergraduate studies. I'm only familiar with Locke's conceptual world. In philosophy, the concept world of every philosopher is very different. My recommendation for translators would be to achieve an introductory level of specialization by taking Introduction to Philosophy course. For example, the concepts inherited by Locke are transmitted from the philosophers before him. To translate a work on Locke, a master's degree in philosophy on Locke can be pursued. But is this possible for the translator or interpreter? In order to understand any philosopher in the field of philosophy, it is necessary to know the general philosophy of the philosopher. Based upon a text, it is necessary to have knowledge of the general history and the philosophers before it. Because references in the philosophical texts are made a lot. For example, in order to translate Aristotle's Categories, it is necessary to have an extensive knowledge about Ancient Greek, general philosophy, Aristotle and Ancient Greece".

Analysis: The participant 2 suggests that each philosopher has a different conceptual world, and recommends that translators take Introduction to Philosophy course. According to him, a master's degree on Locke may be required for the translation of Locke's work. Thus, introductory-level specialization may be possible. However, in order to understand philosophers in the field of philosophy, the participant states that it is necessary to understand the general philosophy of the philosopher and she also stresses there are many references in such kind of texts with an example. Based on the opinions of the participants, it may not be enough to equip the translator or interpreter just with the concepts and terminology related to philosophy in translation education and to carry out translation practices by the translation educator about different philosophical movements every week. In order to render more successful translations in this field, translation students need to take courses from philosophy department (such as Introduction to Philosophy) as elective course and they need to continue the courses in the field of philosophy, and maybe even to get a master's degree. A lecturer from the Department of Philosophy with a translation competence may transfer his / her knowledge and experience to the translator candidate. However, the lecturer being a translation scholar who is

¹¹ Participants made their comments in Turkish. But as the language of the article is planned to be in English, the author translated them directly without changing the form and content.



interested in philosophy but is not specialized in the field of philosophy, can enable translation students to take interest in the field of philosophy. But in the end, it may be necessary for the translation student to take the next steps himself and to put information on it in different ways in some ways (such as philosophy education).

Participant 3 (Sociology Lecturer):

“There are some basic works. They must be read. Dictionaries are also available. Glossary of Sociology, books on Introduction to Sociology, non translated books written in Turkish in Turkey on sociology can be read. It is important to read basic theories of sociology (theoretical books) and methodological books. In other words, topics such as methodology, theories and introduction to sociology can be classified. First of all, in order to gain familiarity with the field, the glossary of sociology terms and introduction books to sociology can be read. In addition, each author has his own terminology. There may be different meanings that the author imposes on his concepts. This situation differs among scientists. There are different sociology departments. American sociology and studies in Europe, in the West, dominate the field of sociology. For example, it is very difficult to translate Weber and Marx at the same time. Someone who wants to translate Weber should also know European history. In this case, translation can be done on the basis of country or author. For example, in English, there are different words having the similar meaning such as conflict, antagonism, or clash. We name all these kind of words in Turkish just “çatışma”. But each of these words is also used in a different context. All this needs attention in translation”.

Analysis: The participant advises the students to read the dictionaries, the glossary of sociology terms, books that are not translated on introduction to sociology, the basic theories and methodology of sociology in order to gain expertise in the field of sociology. He also states that the translator candidates may have to exhibit attitudes according to different schools. Based on the example of Weber and Marx, the participant who asserts that a translator who is to do a Weber translation must know European history also states that the context should be paid attention during the transfer of concepts.

A translator or an interpreter who wishes to specialize in the field of sociology can take the concepts, theories and methods on sociology at the introductory level in the course of translation of sociology texts, and the specialization process can be initiated in this way. However, if the translator candidate does not have any prior knowledge of sociology or has not had any basic training, he/she cannot be expected to fully master the translation of sociology texts at the end of the course. This course can make it possible for the translation candidate to be interested in those kind of texts, and the subsequent process is left to individual effort and willingness to learn.

Participant 4 (Public Translator):

“The concept of expertise is used in a broad sense in “Translation Studies”. This concept needs to be well underlined. A good translator is also called as an expert. Specialization requires professionalization. There is a need for a different concept for expertise in translation. Moreover, there are no stages of specialization that are described in detail in translation studies. There is no answer to questions such as “how to specialize in any field? and what are the stages of this specialization?”.

“We can say that specialization is a process. Expertise is to be able to use translation skills during translation and apply them to practice. There are many areas of expertise such as mining, agriculture, yachting and so on. Maybe over 1000 different areas of expertise. In order to specialize in any field, it is necessary to read the main sources that make up that field. For example, there are resources of United Nations on migration. There are basic resources of



the World Migration Organization. For example, let's assume that there is a translator responsible for an institution working on human rights, law enforcement agency, population and local authorities, As the translator sees writings on these topics in time, he/ she learns how it is called 'detention' or arrest document and learns those kind of terms by working".

"In public translation, specialization may become an issue within the institution. For example, translators of the Ministry of Health, the Ministry of Culture and the Social Security Institution also have specialization in the process unlike a freelance translator who does not have such a right due to the natural conditions of the work carried out. Because a freelance translator has to find customers, translation job, needed documents for translation etc. himself or herself. However this is not the case for an institutional translator. Specialization is easier for translators working in a governmental institution. There are basic documents in the institutions. And each of them has an institutional memory. This institutional memory can be verbal or written. Even someone who doesn't speak a foreign language in the institution can help the translator or interpreter because he / she knows the functioning of the institution. There is no need for the institutional memory to be written. It can also be asked verbally. Institutional memory facilitates specialization. In the institutional culture, you become more specialized among readers. It's a process. Actually an expert translator is someone who knows what to look for and where to look and also the one who looks at the text and grasps its context and analyzes it".

"What is important at this point is the accumulation of knowledge in candidates of translators. Translation candidates are able to recognize himself / herself as a specialist in translation in 4-year undergraduate courses. These fields can be literature, history, press, technology and so on. Of course, there will be some areas in which the translation candidate feels more competent than other areas. It will be more beneficial if he / she chooses earlier to which field he / she is going to orient in professional life. At this point, it is important that the student knows himself / herself and becomes aware of his / her interests. For example, a translator candidate may be directed to fashion related sites if the candidate has an interest in fashion. Translation instructors can guide students at these points. As for the method of expertise in translation, it will not be useful to memorize a dictionary alone without knowing its context in any field. Translation from source text to target text may be more useful. Because this process is at least three-way. Perhaps the most important thing is to raise awareness of the students regarding the importance of context, knowledge of which concept to use, when and where to use that concept and so on".

Analysis: The participant states that the concept of expertise is widely used in translation studies and that expertise requires professionalization. According to him, since the concept of expertise is used in a broad sense, it is necessary to find a different concept.

The participant associates specialization with translation practice. According to him, the translator is an expert on the condition that he/she can apply his/her expertise in practice. The participant states that there are many fields of expertise such as mining, agriculture and yachting, and that some of the main sources should be read as a condition of being able to specialize in one of these areas and he gives some examples about it. During the four-year undergraduate education, the participant states that the translator enters the process of specialization by recognizing himself/herself in the field of expertise and that the specialization continues after the translation training.

Therefore, the specialization courses given in the translation program can be a preliminary indication of the area of interest of the translator and the main specialization and then the specialization continues either at the introductory



level in translation education or after graduation. Only the practices and translation skills applied in translation education do not show that the expertise in a certain field is achieved.

Participant 5 (Owner of a translation company and medical device translator):

“There are many different fields of specialized translations. Translation departments are often subject to criticism as they are not linked to the specific field. However, translation students in undergraduate education cannot be expected to specialize in all fields. Expertise also differs over time. For example, in the automotive sector, there are different tools like manual, automatic transmission and so on under the automotive umbrella. The medical translation is the same. There are different sub-fields, such as medical device translation. For example, I undertake medical device translation projects under medical translation, but I do not receive translations related to allografts. Because I don't know anything about it and it's a different field. In the same way, although it is related to medicine, I do not translate biocidal products. I'm in the medical device industry. To give an example from this field, the medical device sector is divided into importers (who have dealers), manufacturers and exporters. As to how we have specialized in this field as a company, we have learned the procedure from the Ministry of Health”.

“We have made relevant readings. The Ministry does not share documents but has some open sources. We have reached the documents such as international legislation, European Community Regulation, Medical Device Regulation and made further readings. There are also other consulting companies that do this work. In addition, the last readers of the translation come into play. With the help of Turkish Ministry of Health, pharmaceutical and medical device coordination department of the institution that has a translation system to save institutional translation documents, we have obtained the information of by whom the translation of documents have been used, who obtains these documents, who uses them and so on. and we also interviewed organizations that provided and used these documents. There are reimbursement agencies in Turkey for medical devices”.

“Reimbursement is realized from Social Security Institution. That is why we have learned its legislation. And then we registered the relevant documents in the system and started to issue medical device product labels for each customer or x company. We have received feedback regarding these product labels. We conducted terminology studies to use a common concept in terms. At this point, we examined the approved terminology of relevant institutions. Then we created templates for each company. Necessary updates continue to be made in time. To put it briefly, reading and examining the real sector, examining the stakeholders individually, the last reader, the target audience, acquiring information about where and by whom the translation text will be used, and identifying the audience affected by the translations are the way for me to specialize”.

Analysis: The participant states that the translation training rather than the specialization guides the translator candidate in the process leading to the specialization. According to him, expertise varies over time. There may be different areas within each special subject matter. For example, the participant has specialized himself in medical device translation projects under medical translation.

Based on the statements of the participant, it can be said that he gained his expertise with individual efforts and by cooperating external stakeholders and making further readings in this field. So specialization is an endless process and it is not expected from students to specialize in the fields of translation at once. This is a process and requires a lot of effort. The translation scholar is the person who guides the translator in this respect. The translation scholar



enables the student to choose an area of specialization according to his/her curiosity and interest and acts as an intermediary in gaining knowledge and gaining experience at the introductory level.

Participant 6 (A language expert in simultaneous and written translation, especially in areas such as marketing, branding, entrepreneurship and academic translations):

"I'm both a part-time academician at a university and I have a double major in addition to Translation Studies. I strongly recommend that translation students take into account their areas of expertise both during undergraduate and graduate programs and participate in certificate trainings and conferences if necessary. The Internet is one of the most useful tools as well as the one that causes the most information pollution. Online research should be done, but resources should be paid attention. Academic databases can be used for reliability".

Analysis: Participant 6 is both a translator and an academician. The participant advises future translators to attend certificate training courses and conferences. When talking about the benefits of the Internet, the participant states that information pollution can lead to disinformation, and that online research should be done in gaining expertise, but it should also be paid attention to its resources. To that end, he suggests academic databases.

It can be argued that the participant encourages students to engage in scientific activities and research and he also recommends academically safe resources during the acquisition of expertise due to his academic identity. It would not be wrong to say that as an academician, as in the above views, this participant suggests that research and reading are important in the process leading to specialization.

Participant 7 (Linguist):

"I graduated from the Department of Linguistics. I recommend reading the books either in the original language or their translations rendered by an expert in linguistics as well as participating in conferences."

Analysis: Participant 7, as a linguist, advises translator candidates to read the original books and review the translations done by experts, as well as to participate in conferences. This, in fact, is a suggestion that, like other opinions, urges the translator to conduct research and read while gaining expertise.

Participant 8 (Lecturer in Archeology Department):

"I follow the current publications of my field both on the internet and in written texts. I recommend translation students that they follow the relevant publications of the field and have well acquainted with the specific terminology. They can use dictionaries related to the field actively because they will have difficulty in terminology of related fields."

Analysis: Participant 8 advises candidate translators who wish to specialize in archeology to follow the related publications while having specific terminology and to actively use the related dictionaries during the acquisition of the terminology. This is in line with other views, and the translator gains expertise through reading and doing research. Thus, it can be said that it is impossible for the translation scholar to find time to offer translation students everything in a lecture environment while the candidates of the translators gain their expertise, but information on a specialized field can be transferred at the introductory level. The main responsibility here belongs to the translator candidate who determines his / her area of interest and who will gain his/her expertise by conducting readings and



researches in that area of interest. The translator candidate should also do research and advanced readings on the subject and the field in which he / she wants to gain expertise in addition to participating in the translation courses.

Participant 9 (Social Sciences Specialist):

"I'm trying to follow all the publications related to my field. It provides both the opportunity to be informed and to develop the scientific language. My recommendation to translation students would be that they should limit the area of interest and at least read all academic publications in that field. Thus, he / she knows what the academic terms, idioms and expressions in his / her field of translation are. For example, when rendering a translation about architecture, the use of spoken language or classical literature causes the meaning of the text to change or lose its meaning. Each scientific language has its own form of expression, apart from the terms. A meaningless expression in everyday language may sometimes define a very important sub-meaning in a specific field. For this reason, I think that translation should be limited according to the fields of expertise. In order to be able to master the language of the field they want to specialize, they should have at least in the beginning a little idea and knowledge about that field. They should learn technical terms and phrases. They also should read examples from publications in all branches of the field so that the form of expression and analogies should be well acquainted with and they gain experience to understand that definitions are sometimes used in a simple but symbolic sense. In summary, translation students must first have a basic knowledge and then read a lot".

Analysis: Participant 9 advises candidate translators to limit their areas of interest in the process leading to specialization and to read all academic publications in the field of specialization. According to him, a word in everyday language can have a different meaning in a specific field. In order to solve this, basic knowledge about the field should be obtained and further readings should be made. This is also similar to the previous views in the process of gaining expertise.

Participant 10 (Lecturer in English Language and Literature):

"Should translation students want to specialize in literature, they need to do a lot of reading, compare (for example, compare various translations) and gain awareness of reading. As is known in literary texts, language, style and form are very important. For example, reading just the text is not enough to translate Oliver Twist. It is a work written in 1840-1850s. London's position at that time, the Industrial Revolution in England and its effects on the people, social and human factors, and so on. factors play a major role in translating Oliver Twist. London was famous for chimney sweepers, thieves, prostitutes, pickpockets at that time.

*There were many thieves on narrow foggy roads and, streets of London. This situation reveals the socio-economic situation of England at that time. When examining the work; the historical, economic, social and human factors of the period in which the work was written should be taken into consideration and these factors should be evaluated in the way of translating the work. At that time child workers were used for chimney cleaning. There were many orphan children. These children, who were important individuals in the UK, were also used in child labor. The century in which the book was written is very important. The chimney sweeper cannot be called a gas heating specialist. Similarly, when translating Edgar Allan Poe; fear, death, and gothic factors are very intense. Why are these themes covered? For example, in Joseph Conrad's *Hearth of Darkness*, "darkness" actually represents Africa in the eyes of whites. Thus when translating, attention must be paid to language and socio-human and economic factors underlying the language. Background information about the author should be obtained. Acquiring the habit of reading is very important. This habit can be gained through selective works from world literature".*



Analysis: Participant 10 states that students who want to specialize in literary translation should know the period of the text they translate, the events that take place in that period and the socio-human and economics factors of the century in which the book has been written. This view reveals the importance of research and reading in gaining expertise.

Participant 11 (Lecturer in Translation Studies):

“Specialization and expertise are really important for translation education. In English, there are two different terms “specialization and specialty” used, the first of which is the process while the latter is the situation that occurs at the end of the process. What needs to be emphasized in translation education is the specialization of students according to their interests. A translation scholar can also enable students to be aware of their interests. In the process of specialization, translation scholars do not need to be experts in every field. We, as translation lecturers, guide the student. At the end, the student reaches the point of expertise and determines the area of expertise he / she wants to work in the future. Information-data-knowledge-syntheses-practice-specialization-expertise model is created, knowledge stands in the form of information and data. Then the student begins to obtain information by processing information and data. After the information is obtained and passed through the mental filter, it becomes a synthesis and you can now create your own ideas. It is just like writing a master or phd thesis. This processed information is then applied to the practical environment. The process of specialization begins and at the end specialization is achieved”.

Analysis: Participant 11 states that academics in translation studies do not need to be experts in every field and that they guide the student only in the field of interest. Students gain expertise by starting the process of specialization in the field of interest. In order to gain expertise in the field of interest, it is necessary to do research and reading as in other views in that field.

Participant 12 (Lecturer in Philosophy):

If translation students want to specialize in philosophy, they can take additional courses such as introduction to philosophy and basic concepts. They need to read a lot. It is very important to take additional courses from the philosophy department. Because, without the help of a lecturer, it is very difficult to internalise the concepts and reach the real meaning of the concepts. Following at least a few semesters of basic courses at the undergraduate level will lead to a familiarity with the concepts. For example, graduates of the Philosophy Department should pursue undergraduate courses in their fields of interest to specialize in history of science. Thus, they also get familiar with the concepts of the field. The conceptual recognition of the field will also make the translations functional. Another benefit of taking additional courses is to get to know the discipline and a professor from the field. In philosophy it is quite difficult to close the deficiency by reading alone. For example, in the field of philosophy translations of Kurtuluş Dinçer are more accepted. Because he is also a professor of philosophy. Since he has a good command of the field, his translations are functional as well.”

Analysis: The participant 12 recommends translation students to take courses such as introduction to philosophy and basic concepts to specialize in philosophy. Follow-up of the basic courses can provide a familiarity with the concepts. Thus, translation can be functional. It is difficult to close the deficiency by reading books only. The participant also stated that Kurtuluş Dinçer was a professor of philosophy as the reason why his translations were more preferred in the field of philosophy.



In order to increase the level of knowledge in acquiring expertise, it may be necessary to take courses that constitute expertise in that field. However, the participant gives a striking example of Kurtuluş Dinçer and explains that the translation of philosophical texts is possible and even more accepted by non-translators who have language skills in the translation of philosophical texts. In this case, it may be concluded that the translation of philosophy texts, in areas of specialization where conceptual confusion is intense, is more appropriate to be given by people who are experts in the field and who have language competence but not translators.

Participant 13 (Lecturer in Translation Studies)

"In translation studies, I will try to explain the expertise in translation by starting from the education we obtained in Translation Studies regarding the translations of the texts in the field of law. We took Turkish law and international law courses. In this way, we learned the terms of general law. And general concepts of the legal system in Turkey, courts, criminal cases, court decisions, legal comparison of German law with Turks were general topics covered in the course. Field courses must be taught by the instructor being an expert in that field. At least basic introduction courses can be given from the field specialist. In the current practice at Marmara University, the method of finding an instructor, who is either an interpreter in the translation sector or a freelance translator to teach the translation of specialized texts is used. For example, the media translator, office translator and interpreter who are working in the market come to the department personally and convey their knowledge to the translation students with a concentrated curriculum."

Analysis: The participant 13 states that she has taken some courses in the field of law in undergraduate studies and thanks to this she has learned the legal terms. According to her, as a translation scholar, field courses should be given by lecturers who are experts of that field. At least basic introduction courses can be taken from the field specialist. For this opinion, a comment similar to the comment from the participant 12 can be made. It can be concluded from the participant's opinion that the experts who are field experts and have also language competence but who are not translation lecturers may offer a more productive course environment for the candidate of translators especially in areas of expertise such as legal texts requiring intensive terminology knowledge.

Participant 14 (Lecturer in Psychology):

"Translator students can read and compare English and Turkish articles written in the field of psychology if they want to specialize in psychology. In addition, introduction to psychology and psychology terms can be taken as additional courses in undergraduate education."

Analysis: The participant recommends that translator students read and compare Turkish/ English articles in order to specialize in psychology and take additional courses such as introduction to psychology and psychology terms in undergraduate education. This is similar to other views, and the translator candidate is expected to read and take courses outside the department but parallel to the specialty in order to advance in that area of expertise.

Participant 15 (Lecturer in Philosophy):

"The area of scientific expertise requires the knowledge of expertise to confront with the language of expertise. For example, in the old texts of Aristotle, the term "passion" is mentioned. When evaluated in terms of philosophy of emotion, this concept can be translated as passion, desire, excitement and feeling. If the difference between these concepts is not known, where can the concept of emotion be derived? The same applies to the philosophy of logic. Logic perception, logic language, basic knowledge of logic can be used. In Translation Studies, there must be an



introduction to philosophy course with high ECTS. And interdisciplinary courses should be taught with students from other fields. Logic can be dealt within 3 months. But this is not true for Heidegger. Translated text is a technical text, a guiding text. It can be a text that will be used in a thesis or in a course. However, if the translation misleads the reader, the translation will not be functional.

“The translator serves to animate the text beyond understanding it and restructures the text in the target language. But sometimes he or she leads to a different restructure, which is very dangerous for specialized texts. For example, the concept of “right” in the philosophy of politics is a central concept in the debate of liberalism. Ralph uses the term “right”. It is translated into Turkish as “hak (right)”. Someone who doesn't know Ralph's concept translates the concept of right as “doğru (true)”. When the “right concept” is translated as “true”, this theory is out of function for the target reader”.

“The perspective of the field is also very important. It is very important in translation to be involved in the debate about the field, to confront it, for example to know the basic concepts and theories of liberalism and communitarianism. One of the biggest mistakes in translation is to think that translation is purely about sentence / syntax. The problem is not actually in the structure. For example, meaning can get lost in terms of emphasis. A meaningful sentence structure constitutes the vitality of the language. Sentence structure makes emphasis. 20th century analytical texts, ancient and medieval texts are different and they have different patterns”.

Analysis: Participant 15 states that the concepts of philosophy need to be conveyed correctly in order for the text to be functional and gives some striking examples of this. For this reason, high introductory courses are recommended for translator candidates. This view is parallel to the views in the field of philosophy and other fields above and gives the impression that the student is required to take an introductory level course in this field.

Conclusion and Evaluation

Based on the expert opinions in the fields of psychology, sociology, archeology, philosophy, translation, linguistics, literature etc. this study can be concluded as follows: Specialization courses in the departments of translation studies established in big cities are given by an instructor who also works in the translation sector as an interpreter or translator. However, the departments of translation studies in the universities established in smaller settlements where this is not possible can eliminate this deficiency through intensive and accelerated courses or by opening certificate programs according to their fields of expertise. Perhaps it would be more beneficial for the departments of translation studies to focus on education in those areas, taking into account the needs of the region and setting. For example, in areas where agriculture and animal husbandry are in high demand, specialization courses on these subjects can be offered. In addition, additional courses can be taken from the common pool of the university or from different areas of interest and general information about the theories, methods and terminology of the related field can be obtained.

Specialization courses in the departments of translation studies can be made available to all university students both in and out of the department by those who are either translation scholars and academicians in different fields or Professional translators or interpreters who can all guide candidates of translators. Thus, students of different fields have the opportunity to study in the same environment. And, information exchange can be more fluid.



In translation, the real sector, stakeholders, the last reader, the target audience, where and by whom the translation text will be used, the audience affected by the translations, in short, the principle of what, in what way and in what context is to be translated is very important. Therefore, it is also important that the translator has such a high awareness of translation. In this way, specialization can be achieved by persevering even in an area which is not known. In addition, as there is institutional memory in public institutions and organizations, specialization can be provided by activating translator communication skills.

The translator should be very careful when translating specialized texts. Because the translator animates the text beyond understanding it and restructures it in the target language. But sometimes the translated text can lead to different restructure. A text that is structured differently can cause the target reader to understand the text in a completely different way and even misunderstand it. As a result, for example, readers of a philosophy text are philosophy students, academics in that field, etc. The translated text will be used to write theses or the students will be trained through those translated texts.

Finally, it is very difficult and even impossible to train students as experts in all fields during translation education. Because there are many areas and sub-areas of these areas. The task of the translation scholar is to enlighten students on the questions of how to specialize in any field, what to do to specialize, and to guide them.

References

- Armăsar, Iona Paula (2014), "Aspects of Specialized Translations in the Field of Economics", *Bulletin of the Transilvania University of Braşov Series V: Economic Sciences*, Vol. 7 (56) No. 2 – 2014, p. 251-258.
- Benítez Faber, Pamela, (2009), "The Cognitive Shift in Terminology and Specialized Translation", *Monografías de Traducción e Interpretación, MonTI*. 1. 10.6035/MonTI.2009.1.5., p.107-134.
- Fiola, Marco A. (2013), "Should the Market Dictate the Content of Specialized Translation Curricula", *Connexions-international professional communication journal* 2013, 1(1), p. 59–63 ISSN 2325-604.
- Gavrilenko, Nataliya (2018), "Online Model for Teaching and Learning the Specialized Translation", *EURASIA Journal of Mathematics, Science and Technology Education*, 2018, 14(6), p. 2711-2717 ISSN:1305-8223 (online) 1305-8215 (print).
- Hradecká, Praha (2010), *Translation of specialised texts: Analysis*, Máster oficial en traducción institucional, Universidad de Alicante.
- Laursen, Anne Lise ve Pellón, Ismael Arinas (2012), "Text Corpora in Translator Training", *The Interpreter and Translator Trainer* 6(1), 2012, p. 45-70.
- Mellinger, Christopher D. (2019), "Metacognition and Self-Assessment in Specialized Translation Education: Task Awareness and Metacognitive Bundling", *Perspectives Studies in Translation Theory and Practice*, p.1-18.
- Öncü, Mehmet Tahir (2013), "Türk Muhakeme İletişiminde Hukuk Dili ve Önemi", *Dicle Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, p.76-89.
- Paradowski, Michał B (2016), "Using Corpus Insights in Specialized Translation: Slicing and Dicing the Language of Food", *Proceedings of Corpus Linguistics Fest 2016*, Bloomington, IN, USA, June 6-10, 2016, p.39-47.
- Postoloea, Sorina (2016), "Translating in a Specialized Context: Challenges and Risks", *Publicat de Universitatea Tehnică „Gheorghe Asachi” din Iaşi Tomul LXII (LXVI)*, p.51-66.
- Roberts, Roda P. (1988), "Towards a Typology of Translation", *Hieronymus*, No:1, p.69-78.
- Sharkas, Hala (2015), "The Effectiveness of Targeted Subject Knowledge in the Teaching of Scientific Translation", *The Interpreter and Translator Trainer* 7(1), 2013, p.51-70.



“Specialization”, <https://dictionary.cambridge.org/dictionary/english/specialization>, **Accession:** 18.06.2019.

Teodoridis, Florenta, Vakilli Keyvan and Bikard, Michaël (2017), “Can Specialization Foster Creativity? Mathematics and the Collapse of the Soviet Union, *SSRN Electronic Journal*, p. 1-57.

Tosun, Muharrem, Akın Ayla ve Şimek Fatih (2015), “Türkiye’de Çeviri Eğitimi Veren Lisans Bölümlerinde Uzmanlık Alan Dersleri: Uzmanlık Alan Derslerinin Çevirmen Adaylarının Uzmanlaşma Sürecindeki Önemi”, *Akademik Bakış Dergisi*, Sayı: 49 , p. 189-198.

Popescu, Alexandra Valeria and Cohen Vida, Marianne-Ivonne (2015), “Can the specialized translator be creative?”, *7th World Conference on Educational Sciences*, (WCES-2015), 05-07 February 2015, Novotel Athens Convention Center, Athens, Greece, *Procedia -Social and Behavioral Sciences* 197 (2015) p. 1195 – 1202.

Yücel, Faruk (2007), “Etkili Bir Çeviri Eğitimi”, *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi* (2) No:2, p.144-155.

http://www.aelfe.org/documents/27_24_Solis.pdf **Accession:** 21.06.2019.



Education and Development: Efforts to Measure Human Well-being

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Abstract

It is evident from research on economic and social progress that economic growth does not always lead to social progress but, in some cases, leads to increased socio-political tension, social inequality and poverty. Even having increased production of aggregate product on background, the state of the population is deteriorating and economic growth does not provide for a fair distribution of income. A new approach to the concept of economic development began in the global economy in the late XX century. According to these approaches, economic growth cannot be considered as the main purpose and the indicator of development. In addition to economic growth, there are a number of indicators and their mutual relationship promote human development and well-being. This article examines the correlation between indicators characterizing the welfare of the population and economic growth, comparing the position of Azerbaijan in the accounts of international economic organizations on the relevant indicators. The authors did a comparative analysis with other countries, the impact of human development on people's incomes and the role of education in the wellbeing of the population.

Keywords: Human Development, wellbeing, GDP growth, education, income

Introduction

In the 1950s, the promotion of industry was declared as a development strategy goal adopted in world countries. The development of industry should have led to an increase in total national wealth, and this, in turn, to an increase in national wealth. But the results showed that without government intervention and without carrying out large-scale social programs, national wealth in and of itself is not able to improve the quality of life and reduce the level of poverty. In spite of the fact that in the 1960s a rapid growth rate was observed in many world countries, a notion was formed in those years that economic factors were not an important condition for development. It is no coincidence that in 1962, the UN Secretary-General U.Thant in his speech on the report "The Decade of Development: A Proposal for Action" said: "Development consists not only of economic growth. Development is change along with growth. And change in turn should be like economic and social, and should be both quantitative and qualitative. The main task consists of improving the quality of life. "

New approaches to the goals and possibilities of development in economic theory at the end of the twentieth century:

- The economic growth rate cannot be considered as the main goal and indicator of development;
- There is no direct link between the growth of gross wealth and the prosperous life of people;
- In assessing economic growth, attention should be paid not to the rate of growth, but to quality (its sources and factors);



● Economic growth should not increase the distribution of the population to the strata, and should be aimed at the well-being of future generations, and should also be accompanied by proper guidance (OECD, 1976). The main position of this new approach, which characterizes the linking of economic and social development, was “ensuring the basic needs of the population”. The main postulate of this concept consisted of improving the living conditions of the poor. In those years, unlike traditional views, attention was paid not to economic productivity, but to a reduction in poverty and an improvement in the quality of life. One of the economists who contributed to this concept was the Chilean economist-Manfred Maks-Nef who studied the causes of the crises that occurred in Latin America. In the work of an economist provided to the world society in 1986 under the name “Human scale development: conception, application and further reflections”, such tasks as social well-being and the provision of basic human needs were investigated. In his opinion, development is about people and not about objects. How can we determine whether one development process is better than another? In the traditional paradigm, we have indicators such as the gross national product... Now we need an indicator about the qualitative growth of people. What should that be? Let us answer the question thus: best development process will be that which allows the greatest improvement in people's quality of life. The next question is: What determines people's quality of life? Quality of life depends on the possibilities people have to adequately satisfy their fundamental human needs. (Max-Neef M., 1991).

Improving well-being is the main goal of every state. Measuring well-being in different countries makes it possible to assess its growth rate, and also makes it possible to determine the provision of the population with minimum standards of living and at what level the economy fulfills its responsibilities (Smith A., 1776). Over the years, economists have considered well-being as a concept that measures individual incomes and includes signs of ensuring the physiological needs of a person. Proponents of this approach paid great attention to the formation and composition of income, as well as the distribution and use of cash income between different groups (Osberg L., 2001).

Later in theories, a multidimensional approach to well-being was applied, taking into account the material and socio-economic (conditions for improving the well-being of individuals, access to education, health care, safety, personal and religious freedom) aspect. That is, well-being meant not only income growth, but also the creation of equal opportunities for people, ensuring the socially weak strata of the population with a normal standard of living and a fair distribution of income.

By OECD well-being of the population includes 3 main indicators:

- ✓ *Material living conditions* (or economic well-being), which determine people's consumption possibilities and their command over resources.
- ✓ *Quality of life*, which is defined as the set of non-monetary attributes of individuals that shape their opportunities and life chances, and has intrinsic value under different cultures and contexts.
- ✓ The *sustainability* of the socio-economic and natural systems where people live and work, which is important for well-being to last over time (OECD, 2011).

As can be seen, in the OECD approach, quality of life is not used as synonymous with the level of well-being of the population. Quality of life is perceived as an indicator of well-being. One of the main indicators used to measure well-being is Human Development Index.

Method

In the process of research, the methods of economic-statistical grouping, comparative analysis and the method of least squares were used. The information base consists of the official information of the State Statistics Committee of the Republic of Azerbaijan, the Report of the Human Development Index of the UN Development



Program, the Information of the Statistical Institute of UNESCO and the World Bank. The data cover the years 2001-2017. Models were implemented in the Eviews9 Software Package.

The formation of the first ideas about human development, as well as the methodology of its measurement is associated with the name Mahbub-ul Haq and Amartya Sen (Haq M.ul., 1995). As noted by Amartya Sen, the increase in well-being as a result of development should not be measured by the increase in per capita income, but by the opportunity to live the life that they consider themselves worthy. According to the author, the capabilities of a person depend not only on his individual mind and abilities, but also on the social and economic conditions that society provides him. Therefore, the expansion of human choice depends on the conditions, economic, social and political opportunities existing in the country (Sen A., 1987).

The Human Development Index (HDI) developed within the framework of the United Nations Development Program since 1990 and which includes four integral indicators is an indicator that makes it possible to measure the level of well-being along with the level of human development (UNDP, 1990). HDI is considered to be an effective tool for informing the state about existing economic, social and political problems that prevent people from maximizing their opportunities. Because HDI is an indicator that makes it possible to evaluate the results obtained by economic development, health care and education.

Methodology: The novelty of the Human Development Index was that it was a statistical indicator able to characterize both social and economic development. The HDI is the geometric mean of normalized indices for each of the three dimensions:

$$HDI = \sqrt[3]{I_{health} * I_{education} * I_{income}}$$

Life Expectancy Index - I_{health} - is the most common indicator characterizing public health and the level of medicine. This index is determined on the basis of the number of years that everyone who is born can live.

Education Index - $I_{education}$ - characterizes the development of education and the ability of the population to get an education. This index is measured on the basis of the expected number of school years for each child and the number of years spent on schooling after 25 years.

Gross National Income Index - I_{income} - is calculated by parity of consumer ability and the logarithm of gross national income per capita.

Also, note that the current methodology was introduced in 2010 after changes as a result of long conceptual discussions. The proposed methodological difference was to update the method of adding all three indices in the human development index. The HDI computed in 1990–2009 was based on the mathematical average of subindices $HDI = (I_{health} + I_{education} + I_{income}) / 3$. In this method of calculation, sub-indices compensated each other. As, the underestimated level of one indicator was compensated by the overestimated other indicators. As a result, the mathematical indicators characterizing education and health care were weakly expressed in the human development index. But the main feature of the method presented in 2010 was that HDI more clearly reflected the change in each parameter. Another difference was that new indicators were used in the calculation of the *Education Index* and the *Gross National Income Index*. Thus, in 1990–2009, the *Education Index* was calculated on the basis of two other indicators, the literacy rate of the population and the enrollment ratio, and the *Gross National Income Index* was calculated on the basis of per capita GDP. Literate population expressed the number of people 15 years and older who can read, write and perceive. This indicator could not sufficiently clearly reflect the quality of education and functional illiteracy.

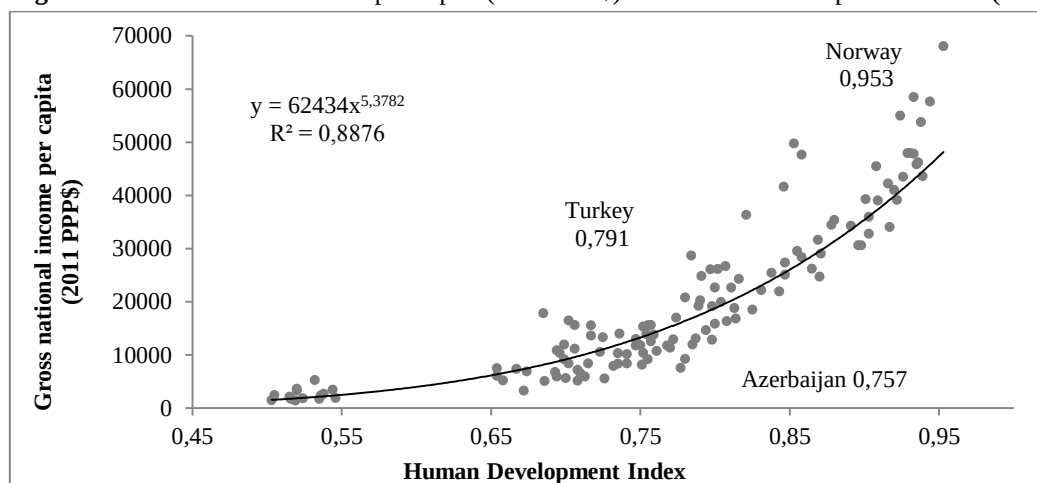
HDI varies between 0-1, approaching the unit indicates a high level. 1 - 0.800 - shows the ranking of countries with the highest, 0.799-0.700 - with high, 0.699 - 0.550 - with medium, and below 0.550 - with weak human development. This coefficient in Azerbaijan was, equal to 0.640 in 2000, increased to the level of 0.757 in 2017.



As a result, Azerbaijan left the group with an average level of human development and joined the group with a high level of human development. At present, Azerbaijan is in 80th place among 189 countries. In the top three included - Norway (0.953), Switzerland (0.944) and Australia (0.939) (UNDP, 2018).

According to the World Bank, the world's GDP in 2017 was 80.886 trillion dollars (with current prices). Azerbaijan produces GDP in the amount of 40865.6 million dollars, which is 0.05% of world GDP (World Bank, 2019.). To study the proportionality between the well-being of the population and economic development, we calculated the correlation between GDP per capita and human development in 130 countries (Diagram 1.).

Diagram 1. Gross national income per capita (2011 PPP\$) and Human Development Index (2017)



Source: <http://hdr.undp.org/en/data>

As can be seen from the chart, the trend curve has an increasing trajectory. Depending on the interpretation, it can be said that in countries with high GDP per capita, that is, in rich countries, the well-being of the population is also high.

Studies by international organizations and individual economists prove that investment in human development and education provides for the improvement of material well-being in the long term. At the microeconomic level, the economic benefits of education and its impact on income have been studied in researches of Schultz (1961), Becker (1964), Mincer (1974). The evaluation results carried out using dependencies Mincer show that the private average global return to a year of schooling is 9% a year. Also note that the estimates were based on 1120 observations conducted in 139 countries during 1950–2014 (Psacharopoulos G., Patrinos H.A. 2018). According to the estimates of the working group on education of the World Bank, an increase in the average duration of education in Azerbaijan was observed with an increase in annual income by 7.2 percent (Montenegro C., Patrinos H.A. 2014).

According to our estimates in Azerbaijan, with a decrease in the level of education, that is, the intellectual level of the head of the family, their income also decreases. The incomes per capita of households with the head of families having higher education are greater than those ones who have no schooling by 17.7%. (Muradov A., Hasanli Y., Musayeva F, 2019).

In assessing the impact of education, more attention was paid to economic growth and income. But new researches are studying the effect of education on human health. A high level of education (especially for women) significantly affects life expectancy and mortality. In 1970-2010 years decline in the mortality rate among people aged 15-60 years in the 1/3, as well as reducing child (under 5 years) mortality rates of 14% is



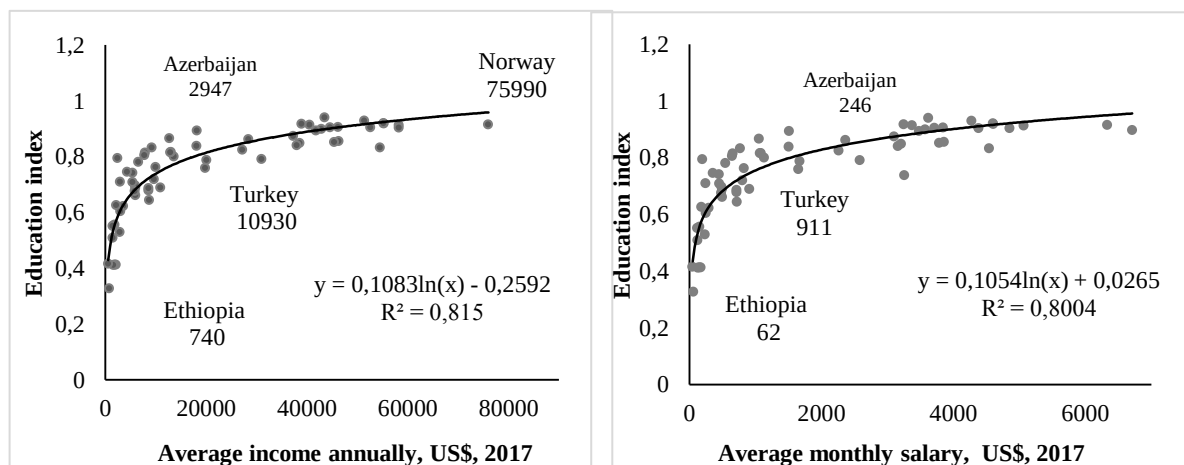
associated with the education of women. This is explained by the fact that educated women have easier access to health care, on the other hand, they have a greater impact on their lives and the lives of their children, and on managing the economy. According to the results of research in the studied years one dollar invested in an additional year of schooling, particularly for girls, generates earnings and health benefits of \$10 in low-income countries and nearly \$4 in lower-middle-income countries (Schäferhoff M., Dean J., 2016).

Studies show that there is a positive relationship between parental education and that of their children. According to the results of research children who have both parents with low education (secondary, primary), at best have a chance to get a university education in 15%. In families of which at least one of the parents received a university education, this chance for children reaches 60% (OECD, 2018).

Findings

To study the proportionality between material well-being and the level of education of the population, we calculated correlations between the average annual, average monthly salary and the education index in 60 countries of the world (Diagram 2.). There is a scattering of developed western countries close to the trend curve. This indicates that in these countries there is a dependence between the level of education and incomes of the population. As can be seen from the diagram, at the bottom of the trend curve there is a group of countries that is scattered with large deviations. These are the poor states of Africa and the East as Surya, Bangladesh and Afghanistan. This is due to the political and economic situation, the shortage and inefficient use of human capital. Sometimes it is impossible to achieve income growth by increasing the level of education and improving the coverage ratio of education. The overall political situation, the level of fees and investments, income distribution are considered important determinants in countries. If there is no demand for labor in the labor market, in other words, people have a low employment opportunity, then the increase in the number of educated people in this country increases the number of literate unemployed. On the other hand, if in the labor market wages are not proportional to the complexity and quality of labor, then education loses its social significance.

Diagram 2. Education index, average income annually and monthly salary (2017)



Source: <https://www.worlddata.info/average-income.php>, <http://hdr.undp.org/en/content/education-index>

Note that in Azerbaijan, in fact, regardless of the geographical location and incomes of the population, children complete a nine-year education (*general secondary schools*). Therefore, the overall literacy rate in the country is 99.8 percent. Despite the fact that children have positive trends in participation in education, opportunities for higher education are limited. Coverage rate of primary and general secondary education is 100%, and higher



education is 33%. The result of this is that in 2017 the number of people with higher education among the population of 15 years and above is only 13.3%.

To assess the material well-being of the population, we will use sample surveys of household budgets prepared by the statistical observation method by the State Statistics Committee of the Republic of Azerbaijan. The amount of monthly income per person in a family increased 4.9 times compared with 2001 and reached 157.9 US dollars (Table 1). And the amount of monthly expenses per person in a family grew 4.6 times and reached 163.7 US dollars. As can be seen from the table, with the growth of incomes of the population, the volume of expenditures on education also increased. This indicator in 2001 was equal to 0.44 dollars, and in 2017, to 3 dollars. During the 16 years reviewed, expenditure on education increased 6.9 times.

Table 1. Income and expenditures of households (current prices, US\$ 2017)

Years	Income of households (per capita, per month)	Consumption expenditures of households (per capita, per month)	Difference	Education expenditures of households (per capita, per month)
2001	32.3	35.3	-3	0.44
2010	180.3	184.3	- 4	2.8
2017	157.9	163.7	- 5.8	3

Source: https://www.azstat.org/portal/tblInfo/TblInfoList.do#994_025

The following results were obtained from the econometric estimation of dependence between family income and education expenditure.

$$\begin{array}{ccccc} \text{DLOG}(\text{EXPENDIT}) & = & 0.041686 & + & 0.806659 * \text{DLOG}(\text{INCOME}) \\ (\text{s.e.}) & & (0.044567) & & (0.202289) \end{array} \quad (1)$$

$$\text{R-squared} = 0.531794 \quad \text{Adjusted R-squared} = 0.498351 \quad \text{Durbin-Watson stat} = 1.976627$$

here,

DLOG (EXPENDIT) - expenses for family education during the month,

DLOG (INCOME) - income for families during the month,

S.E. - standard error parameters,

R-squared - determining coefficient,

Adjusted R-squared - shows the specified determinant coefficient,

Durbin-Watson stat - is a test for autocorrelation in a data set.

In Eviews the main statistical characteristics and other relevant tests shown in the table taken from the regression equation and other relevant tests show that the model is adequate. The statistical studies and correlations indicate that families are interested in investing in education. Thus, the growth of monthly income per person in families by 1%, contributed to the growth of expenditures on education by 0.81%.

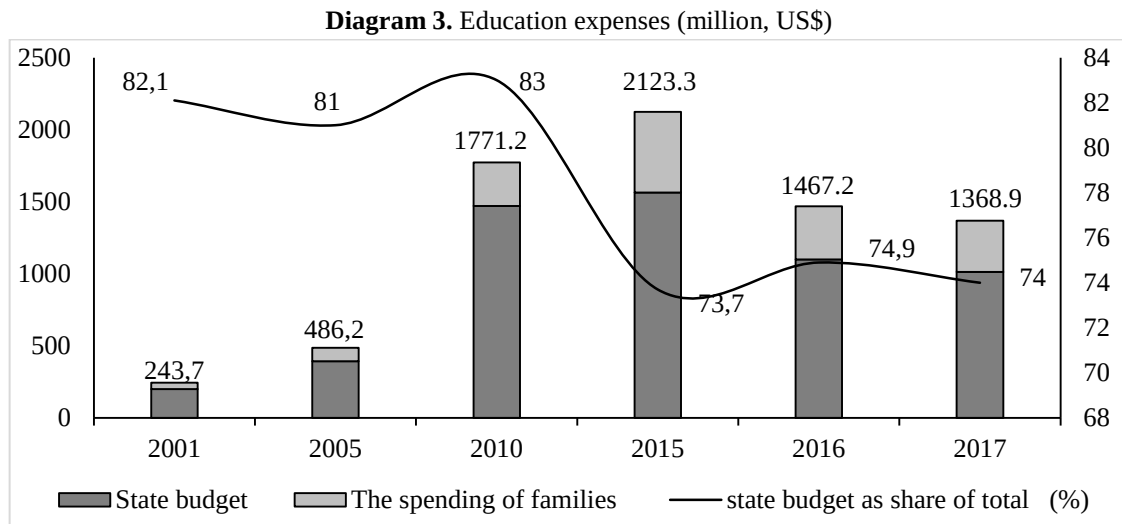
At the next stage, we will assess the impact of education expenditures on household income at the macroeconomic level. Note that education expenses by country can be classified in 3 groups:

- ✓ Expenditures from the state budget
- ✓ Family Education Expenditures
- ✓ Funds for staff development allocated by institutions.

Due to the fact that there is no data on the last item SSCAR, we will introduce two items of expenditure into our research. The calculations show that in the country, expenditures on education increased by 5.6 times compared with 2001 and reached 1,368.9 million dollars in 2017. Approximately 1/4 of the cost of education falls to the



share of families. Family spending on education in 2017 amounted to 356.3 million dollars, and in 2001 43.7 million dollars.



Source: https://www.azstat.org/portal/tblInfo/TblInfoList.do#994_025 and
https://www.azstat.org/portal/tblInfo/TblInfoList.do#994_020

And the budget expenditures on education in 2017 amounted to 1012.6 million dollars. As can be seen from the diagram, the amount of funds allocated from the budget has been growing since 2001. Due to the devaluation in 2015, there is a relative decline in spending in dollar terms. Although spending on education has increased since 2001, this is lower compared with the growth in general government spending. Compared to 2001, general government expenditures increased 11.8 times, and expenditures on education 5.1 times. As a result, the share of expenditure on education in total expenditures decreased from 23.1% to 9.9%. In 2017, the amount of funds allocated from the state budget for education was 2.5% of GDP. Note that according to the World Bank, this figure in the world is 4.8%, in countries with high incomes of 5.2%, in countries with low incomes 3.5%, in heavily indebted poor countries 4%.

The result of the regression equation that measures the impact of education expenditure on population income is as follows:

$$\text{LOG}(\text{INCOME\_ANNUAL}) = 3.48262474601 + 0.955882235974 * \text{LOG}(\text{EXP\_EDU}) \quad (2)$$

(s.e.) (1.183194) (0.202289)

R-squared = 0.893654 Adjusted R-squared=0.886564 Durbin-Watson stat = 1.784233

here,

LOG(EXP_EDU) - the total education expenditure in the country

LOG(INCOME_ANNUAL) - population's income

In Eviews the main statistical characteristics and other relevant tests shown in the table taken from the regression equation and other relevant tests show that the model is adequate. As it is seen from the equation, the 1% increase in the education expenditures was reflected in the increase in the income of the population by 0.96%.



Results, Conclusions and Recommendations

Education, in the long run, provides improvement of well-being of the population and the development of human capital. As a result of large-scale social programs conducted by the state in Azerbaijan, the opportunities for education and indicators for children and students have relatively improved. Revenues from the export of petroleum resources have led to improved well-being and increased incomes of the population. Revenue growth has significantly affected the growth of spending on education. Due to the results of researches families are interested in investing in education. The growth of monthly income per person in families by 1%, contributed to the growth of expenditures on education by 0.81%.

At the macro level, the growth of expenditures on education ensured a growth in the income of the population by 0.96%. Statistical estimates show that education expenditures from the state budget prevail in total education expenditures. Although government spending on education has increased during the study period, its share in total government spending has declined.

References

- Becker, G. (1964) *Human Capital*. Chicago: University of Chicago Press
- Haq, M. ul. (1995) *Reflections on Human Development*, Oxford University Press, Oxford
- Max-Neef, M. (1991). *Human Scale Development: conception, application and further reflections*. New York : The Apex Press, 114 p.
- Mincer, J. (1974) *Schooling, Experience and Earnings*, National Bureau of Economic Research, Cambridge, MA.
- Montenegro C., Patrinos H. (2014) *Comparable Estimates of Returns to Schooling around the World*. World Bank Policy Research Working Paper Series 7020.
- Muradov A., Hasanli Y., Musayeva F (2019) *Estimation of the Education Influence on the Population Income*. 37th Int. Scie. Conf. on Econ. and Social Development - "Socio Economic Problems of Sustainable Development". 4-15 February, 2019. pp. 592-602.
- OECD (1976), *Measuring Social Well-being: A Progress Report on the Development of Social Indicators*, Paris
- OECD (2011) *Compendium of OECD Well-Being Indicators*. OECD, Paris, 37 pp.
- OECD (2018) *A Broken Social Elevator? How to Promote Social Mobility*.
- Osberg, L. (2001), "Comparisons of Trends in GDP and Economic Well-being – The Impact of Social Capital", in J.F. Helliwell (ed.), *The Contribution of Human and Social Capital to Sustained Economic Growth and Well-being: International Symposium Report*, Human Resources Development Canada and OECD.
- Psacharopoulos G., Patrinos H. (2018) *Returns to investment in education: a decennial review of the global literature*. EDUCATION ECONOMICS 2018, VOL. 26, NO. 5, 445–458
- Schultz, Theodore W. 1961. "Investment in Human Capital." *American Economic Review* 51(1): pp. 1–17.
- Schäferhoff M., Dean J. (2016) "Estimating the Economic Returns of Education from a Health Perspective." Background Paper for the Education Commission. SEEK Development (SEEK).
- Sen, A. (1987) *The Standard of Living*, Cambridge University Press, Cambridge.
- Smith, A. (1776), *The Wealth of Nations*, Book I.
- The State Statistical Committee of the Republic of Azerbaijan (2018), Statistical Information service, <https://www.stat.gov.az/>. Accessed 6 April 2019.
- UNDP (1990) *Human Development Report 1990: Concept and Measurement of Human Development*. Oxford University press.
- UNDP (2018) *Human Development Indicators and Indices: 2018 Statistical Update Team*, New York, 112 p.
- World Bank (2019) *World Development Indicators data-base*. Washington, DC. <http://data.worldbank.org>. Accessed 6 April 2019.



Education is a Key Factor in Quality of Life

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Abstract

The article examines the possible effects of education on quality of life and outlines the current theoretical and methodological approaches to assess quality of life. In addition, the labor force level in the labor market in Azerbaijan is analyzed by HDI and quality of life analysis when compared to developed and developing countries. As a result of the research, the impact of education on labor supply, poverty reduction and quality of life was determined according to the needs of the labor market in Azerbaijan. As in the case of different countries studied in Azerbaijan, a good relationship between education level and social and economic development levels was confirmed.

Keywords: Quality of life, Education, Human capital, Labor, Human development

Introduction

Quality of life is a complex and multidimensional concept. The bio-social-moral quality of human life depends on the satisfaction level and quality of material, social and moral needs, as well as on the physiological, social and moral development conditions. From a socio-economic point of view, quality of life typically relates to the assessment of a particular part of life's characteristics and reflects the extent to which it can meet its material, and cultural needs. Quality of life is defined as the socio-economic category that determines the level of physical, moral and social needs of people on the one hand, and the socio-economic category that determines the quantity and quality of important goods and services used to meet these needs. Within the framework of this approach, it is seen that the level of compensation is understood for the material and moral needs of people. The



level of compensation is defined as the level of consumer standards for human existence and functioning. As you can see, quality of life is measured not only by income but also by complex indicators. As mentioned, the quality of life reflects the level of satisfaction of people's material and spiritual needs for a certain period of time. In this respect, S. A. Vasnev's book "Statistics: The Teaching Book" provides a more detailed study of the concept of quality of life. It is based on the level of satisfaction of the material (food products, clothing, housing, household goods) and moral (labor, employment, health, education, recreation) needs of people under the standard of living of the population. In this context, the "level of life" is characterized by the provision of the necessary material wealth and services to the minimum level of consumer demand and the degree of effective consumption of the population. Given these aspects, economic theory is considered an important and highly complex socioeconomic life category. The world's success in modern times is characterized by the level of life of the citizens in that country. The ruling political regime and economic policy are inextricably linked to the welfare of the country's population. The survival of the political struggle and the period of power in the country depends largely on the promises and the fulfillment of promises made directly by the citizens. On the other hand, in the modern era, more and more indicators of economic development have begun to be implemented. In general, in the modern age, welfare level, life level, quality of life and related concepts are applied to express the effectiveness of economic and social development in the country and are considered to be essentially similar.

Literature summary

The concept of 'welfare' is regarded as one of the oldest concepts of the economy and is depicted in the works of the ancient philosophers and philosophers in accordance with the conditions in which they live. It should be noted that since the well-being of the population is considered to be a very complex economic-social reality, it has become a problem not only in economics but also in sociological, religious and philosophical studies. Although the concept of 'welfare' or 'prosperity' is explained differently in different approaches, in dictionaries it is generally defined as the level of material and moral support of society [4]. The Great Encyclopedic Dictionary defines the level of welfare as the conditions and products necessary to meet the specific needs of the population [10]. In the Economic Dictionary, welfare is an indicator that determines the living standards of people. The Economic Dictionary also notes that a system of indicators characterizing the welfare/ prosperity has been defined. Some researchers have stated that welfare is a social and political concept and they see it as a suitable environment for the success of human development. Brokhuez and Yefron see social welfare as a social goal, and these goals can only be achieved politically in terms of state and state interest in the process. In the "welfare" economic category, thinkers and economist scholars are particularly careful at different times. Since the welfare of the country reflects the success of the political regime, this understanding has some "political shadows" [2]. For this reason, the prosperity of the citizen in various historical stages, periods and political structures has always been the focus of attention and has been the subject of research in economic theory. Mayer considered the level of life, the material and spiritual product (value) necessary for life, the level of consumption and the level of satisfaction of the needs of people in these products. It seems Mayer looked at this view in a narrower context and approached it in general [7]. Life is a category that changes according to time and place. In this respect, it is suggested that the level of life should be considered as "material consumption value and moral values compared to social norms based on the historical consumption context" (Social Policy). In this approach, it can be concluded that the level of living in a given period depends to a large extent on specific time and norms of society. The analysis shows that in the nineteenth century, Karl Marx proposed to meet certain needs: not only the standard of living, but also the conditions in which people lived and supported. Marx stated that it is necessary to know its level of development in order to determine the need for consumption (consumption). He stated that consumers are characterized by the need for consumption, such as the final stage of recycling, and that consumption is as important as demand and emphasizes the importance of mutual relations between them.

The United Nations Statistical Commission considers it appropriate to coordinate the living standards of the population, taking into account the living conditions, consumption levels, employment and freedom of expression of the population [3].



The analysis of approaches allows us to say that both goodness and level of life are defined in two dimensions. Both concepts are considered narrowly (individual) and broadly (community). In a narrow sense, if the standard of living is determined according to the basic level of human welfare, it is based on certain historical conditions and conditions accepted by society. It should be noted that the provision of an appropriate level of life provides an opportunity for every citizen to be a useful person and to promote development. The standard of living is the economic category and social standard that determines the degree of satisfaction of a person's moral, physical and social needs. In other words, the standard of living of the population is an important indicator of the well-being of the population corresponding to the economic growth of the country. In broader terms, this parameter also reflects the level of food and non-food products and services available to the population. Therefore, we can say that the level of life as a complex social and economic category is the level of consumption that makes a person a useful member of society, as well as the development and maintenance of this consumption.

Method

Approaches to the concept of "quality of life" began to grow further in the second half of the last century. In recent years, different international organizations and expert groups have developed different quality of life indicators system. One of them is an indicator system created by Nobel laureate Joseph Stiglitz(2018), Amartia Sen (2018) and Professor Jean-Paul Fouzzi (2018). In Stiglis-Sen-Fitussi's report, the structural components of the concept of "quality of life" are [14]:

- material living conditions (income, consumption, wealth);
- production and other activities
- health care;
- having different levels of education and skills;
- social interaction;
- economic and physical security;
- management and fundamental rights;
- natural and living conditions;
- overall life experience.

The most widely used method for assessing the quality of life is the Human Development Index approved by the United Nations Development Program RIO Declaration in 1991. It should be noted that the human development index is calculated as the numerical average of the 3 subgroup indices. These include the life expectancy index, the education index and GDP (according to purchasing power parity) [6] .

Table 1. Country profile of human development indicators (Azerbaijan)[11]

Human Development Index	HDI : 0.757
Human Development Index	80
Health	Life expectancy at birth (years): 72,1
Education	Expected years of schooling (years): 12,7 Mean years of schooling (years):10,7
Income/Composition of Resources	Gross national income (GNI) per capita (2011 PPP \$): 15600
Inequality	Inequality-adjusted HDI (IHDI): 0.681
Poverty	Multidimensional Poverty Index (MPI): 0,019
Demography	Median age (years) 30.3
Gender	Gender Development Index (GDI): 0.949



Dayanıqlılıq

Adjusted net savings (% of GNI): 1.7

Human Security

Refugees by country of origin (thousands): 10.3

Source: UNDP, "Country profile of human development indicators", 2018

In addition, the UNDP Sustainable Development Goals have high quality education for early child development and access to education, equal access to education for all young people and the elderly, knowledge of mathematics, elimination of gender inequality in education, employment, appropriate workforce and appropriate technical and professional skills for entrepreneurial activity. A significant increase is in the number of young and old people promoting healthy lifestyles, human rights, gender equality, peace and culture and non-violent actions. With regard to these issues, the level of assurance of qualified teachers in countries should be greatly increased through international cooperation, and the level of access to knowledge and skills necessary for world citizenship, cultural education and sustainable development should be increased. Apparently, this approach was considered one of the key indicators of the level of educational development. In addition, the UNDP Sustainable Development Goals have high quality education for early child development and access to education, equal access to education for all young people and the elderly, knowledge of mathematics, elimination of gender inequality in education, employment, appropriate workforce and appropriate technical and professional skills for entrepreneurial activity. A significant increase in the number of young and old people promoting healthy lifestyles, human rights, gender equality, peace and culture and non-violent actions. This ultimately leads to the establishment of institutions of higher education and training, including vocational education, ICT, technical engineering and scientific programs, open to children's disability and gender issues, with a safe, inclusive and effective learning environment for all. A significant increase is in the number of scholarships on a global level.

With regard to these issues, the level of assurance of qualified teachers in countries should be greatly increased through international cooperation, and the level of access to knowledge and skills necessary for world citizenship, cultural education and sustainable development should be increased. Apparently, this approach was considered one of the key indicators of the level of educational development. One of the most important ways to improve the quality of work and at the same time increase the productivity of the workforce is to increase the employment quality of the working population and increase the level of education of the employees. In the last few decades, almost all countries have taken action to improve the quality of education. They emphasize that it is impossible to talk about improving the quality of life without raising the quality of education. Education is one of the most effective tools in developing efforts to achieve the desired level of life. At the same time, education is the most important social service that increases the welfare and benefits of the society and increases the equality of opportunity and the ability of individuals to shape the welfare and happiness, social justice [4]. The impact of education and training on economic development as the driving force of the economy has attracted the attention of economists and researches have been conducted in this direction. It should be noted that education in the knowledge-based economy is the foundation of economic development because education is the key to technological innovation and high efficiency. Furthermore, as a means of transferring knowledge for generations, education is the foundation of human civilization and has a significant impact on the quality of life of individuals. The lack of knowledge, skills and competences limits the ability to access the labor market and the level of economic prosperity, increases the risk of social isolation and poverty, and may prevent full participation of civil liberties and political issues. Research and experience from countries around the world show that education has an exceptional role in addressing these problems, increasing and influencing people's knowledge of the world. All of these factors have always been at the center of researchers' attention during the historical development of countries. Although prominent thinkers such as Adam Smith (1776), Thomas Robert Malthus (1798), David Ricardo (1817), John Stuart Mill (1821) and Karl Marx (1847) have focused on the importance of education for economic activity and economic development, their theories are not detailed and



systematic. Economists invested heavily in Western Europe and Japan, especially after World War II; where investments in physical capital could be used efficiently and effectively to invest in this field.

T. W. Schultz(1963), J. W.Bekker (1992), with the understanding that education and human development affect economic development much larger than all other factors. Human capital theory emerged under the influence of economists such as Robert Solow (1990) and Robert E. Lucas (2014). The fundamental changes that advance human development are the importance of technical and scientific knowledge, from simple techniques to modern techniques, as well as increasing the physical and intellectual aspects of production and management, marketing and human production processes. There is an increasing need for advanced human factor. The effects of human capital on economic growth were investigated in the 1960s by Schultz and Denison in the United States. It has been determined that education has a direct impact on national income growth by increasing the capacity and production capacity of the labor force. Denison found that one-fifth of the increase in GDP per capita in the

United States in the period 1948-1973 was related to the increase in the level of education of the labor force[9]. In 1956, J. W. Kendrick tried to explain what factors of production occurred during the 1889-1957 production growth in the US economy (3.5%). As a result of this study, while the share of classical production factors such as capital, labor and land is 1.9%, the share of other factors is found to be 1.6%. This means that improving the quality of mankind can lead to economic growth. Robert Solow, a US economist who won the Nobel Prize in Economics in 1987, and especially economic growth studies, acknowledged that technical change was not neutral between 1915 and 1955, that is, the change in the rate of change between investment and labor. The Labor Economy in the US economy has shown that approximately 10% of the growth in production per hour is due to the increase in physical capital and the effect of the resulting increase, with 90% out of the usual production factors [10]. The development of education as one of the main tools of national development is the responsibility of each country to its citizens. As a result, the provision of schools, colleges and universities in most countries depends largely on the public sector. Over the past decades, efforts have been made to develop educational institutions in these countries and to position them in the international ranking. These efforts aim to support the development of educational tourism in the country, while avoiding ‘brain drain’, and to ensure that the educational potential is used more effectively. All these factors should be kept in mind when considering the quality of educational institutions and all educational institutions should be designed to ensure to serve potential students in these directions.

Findings

Comparative analysis of education level in Azerbaijan

Research shows that in recent years there has been an increase in the average education time of people in the 25-64 age group in developing countries. This is more obvious in the following table.

Table 2.Population with at least some secondary education (% ages 25 and older) [5].

	2000	2005	2010	2015	2016	2017
<u>Azerbaijan</u>	92,8	92,7	95,6	95,6	95,6	95,6
<u>Belarus</u>	–	–	89,3	89,3	91,9	91,9
<u>Finlandya</u>	44,4	100	100	100	100	100
<u>Georgia</u>	91	92,4	–	96,7	95,5	95,5
<u>Germany</u>	73,4	96,9	96,4	96,5	96,5	96,5
<u>Indonesia</u>	21	43,3	43,4	47,3	48,8	48,8



<u>Kazakhstan</u>	89	99,3	99,6	100	99,3	98,8
<u>Kyrgyzstan</u>	79,8	86,2	95,6	98,7	98,6	98,4
<u>Norway</u>	77,7	96,6	93,9	95,3	95,3	95,7
<u>Russian Federation</u>	90,1	92	90,9	95,6	95,6	95,6
<u>Turkey</u>	27,1	30,6	44,2	54	52,2	52,2
<u>Ukraine</u>	88,2	91,7	93,5	95,1	95,5	95,1
<u>Uzbekistan</u>	–	–	–	99,9	99,9	99,9
<u>Yemen</u>	6,6	11,7	17,6	24,4	26,1	27,1

As can be seen from the table, in developed countries or developing countries, there is an increase in the share of those receiving education in the population aged 25 years and over. Thus, in highly developed countries such as Germany and Norway, 73.4 and 77.4 percent of the total population in this age group had general education, which increased to 96.5 percent and 95.7 percent in 2017. There is an increase in this weight in Azerbaijan and other post-Soviet countries. However, this shows that the trend towards education among the population has increased dramatically in recent years. The economies of the countries are moving from employment to employment. As you can see, education is extremely important in improving the quality of life of the population. First of all, it shows itself at the employment level of the population. As seen from the experience of European countries, the increase in the level of education has a positive effect on both the employment and the employment of the population in employment.

Table 3. Distribution of employed and number of unemployed population by education levelshsd. Person [10]

	Total	higher education	secondary specialized education	vocational education	secondary education	main education	primary education
Employed population	4822,1	796,9	516,4	260,5	2892,6	306,6	49,1
Unemployed persons	251,7	35,2	31,6	18,5	131,4	33,3	1,7

Considering the distribution of employment among the population in Azerbaijan, it is understood that in both cases the employment of the weighted holders stems from the graduates of educational institutions. Thus, total employment was 93 percent of the population. A higher education level is often associated with better professional perspectives and higher income and therefore has a positive impact on quality of life. Higher education graduates improve their working skills: In the EU-28, the unemployment rate is higher than the lower education level and at a lower level for higher education. Based on information on the level of unemployment by level of education, in the EU-28, with a low level of education in 2017, people between 15 and 74 years of age are more likely to be unemployed (such as 14.8 percent).); The unemployment rate of people with higher and lower education is high in Lithuania, Slovakia, Hungary and Bulgaria and relatively low in Cyprus, Greece and Portugal. Significant efforts are underway to reduce unemployment in Azerbaijan. One such measure is measures aimed at changing the qualifications of the cadres and the requirements of the labor market. This is more obvious than the following table:

Table 4. Professional training of staff person



Indicators	2005	2010	2014	2015	2016	2017
Passed professional training –total	5254	4792	6914	7453	4815	4502
of which:						
Retrained	2143	1503	2687	4029	681	1180
Raised qualification	5196	3389	4136	3888	11147	7102
Graduated from total number of workers who passed professional training and raised qualification	10450	8181	11050	11341	15962	11604
in direct enterprise	4540	2153	4091	4164	7324	2117
in foreign country	123	118	49	33	28	119
in educational institutions	18	186	1695	4002	1344	3838
advanced training institutes	...	...	86	218	607	441
training courses	...	...	5129	2924	6659	5089
Women	1501	712	665	440	751	488

As can be seen from the table, approximately 120,000 people were employed in vocational training or retraining courses in 2005-2017 according to labor market requirements. This is one of the most important factors that determine the importance of education in improving living standards and quality of life.

Table 5.Raising qualification of officials and specialists person

Indicators	2005	2010	2013	2014	2015	2016	2017
Raised qualification	10022	22326	17234	15450	13045	14429	11499
including:							
officials	972	1968	4459	3437	2749	2724	1837
specialists	9050	20358	12775	12013	10296	11705	9662

These refinement issues are also addressed to authorities and experts. Between 2005 and 2017, 104,000 people were trained in these programs. When interpreting education levels for the whole population, it should be noted that formal education systems include older generations that may have emerged in older generations, for example in a shorter education period, for example when they are quite different.

Evaluation of the impact of education on quality of life.

Assessing the impact of education on improving the quality of life is also of great importance for learning this problem.

Table 6.Evaluation of the impact of education on quality of life [12]

Countries/Territories	1999	2012	2015	Change 2012-2015
United Kingdom	...	0,996	0,994	-0,2



Japan	...	0,994	0,994	0,0
Norway	...	0,993	0,992	-0,2
Kazakhstan	0,976	0,990	0,993	0,2
France	...	0,990	0,990	0,0
Denmark	...	0,989	0,989	0,0
Croatia	0,972	0,989	0,985	-0,4
Germany	...	0,985	0,981	-0,4
Kyrgyzstan	0,962	0,984	0,985	0,1
Russian Federation	...	0,981	0,979	-0,2
Latvia	0,980	0,980	0,974	-0,5
Belarus	...	0,979	0,979	0,0
Uzbekistan	...	0,968	...	...
Azerbaijan	...	0,965	0,954	-1,1
Turkey	...	0,939	0,950	1,2
Islamic Republic of Iran	0,878	0,935	0,947	1,2

Although Azerbaijan has made significant progress in the field of education, much remains to be done. According to the United Nations Educational, Scientific and Cultural Institute (UNESCO) Institute for Statistical Education (EFA Development Index), Azerbaijan ranks 40th among 127 countries. Kazakhstan ranked 4th in the post-Soviet area, Estonia 20, Georgia 30, Kyrgyzstan 42 and Uzbekistan 44th. indices in education are found in developed countries. Although the level of education index in the Republic of Azerbaijan is higher than the world average, potential opportunities for further development of this area continue.

Development and development dynamics in all areas of Azerbaijan's rapid development The report of the United Nations Development Program shows that education spending in 132 countries is 4.9%. Cuba, Vanuatu, Lesotho, Yemen, Brunei, Mongolia - 9%, Denmark, Guyana, Malaysia - 8%, America, England, France, Switzerland, Mexico, Iran, Italy, Oman, Germany, Spain, Hong Kong, Russia, Japan, Turkey and more than 4% in Romania, Armenia, Azerbaijan, Kyrgyzstan and Kazakhstan about 3% at the end of the list, Pakistan, United Arab Emirates, Indonesia, in countries such as Ecuador was recorded as 1%.

As you can see in the table, the education index in the world countries is changing dynamically. The highest indices in education are found in developed countries. Although the level of education index in the Republic of Azerbaijan is higher than the world average, potential opportunities for further development of this area continue.

Table 7.Education index [12]

Countries	2005	2010	2013	2015	2016	2017
Azerbaijan	0,652	0,681	0,698	0,709	0,709	0,709
Belarus	0,716	0,829	0,835	0,836	0,838	0,838
Georgia	0,753	0,777	0,804	0,831	0,845	0,845



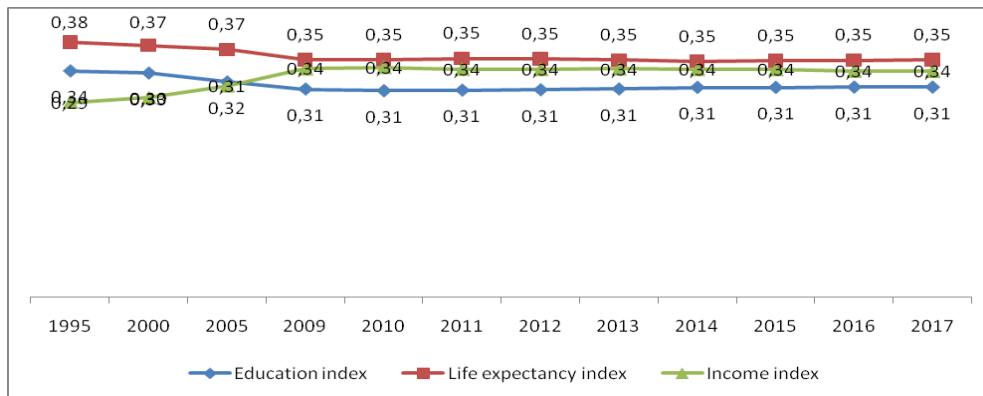
Germany	0,902	0,928	0,933	0,940	0,940	0,940
Ghana	0,454	0,526	0,548	0,556	0,558	0,558
Indonesia	0,552	0,586	0,614	0,616	0,622	0,622
Iran (Islamic Republic of)	0,552	0,662	0,738	0,741	0,741	0,741
Kazakhstan	0,789	0,781	0,802	0,806	0,809	0,814
Kyrgyzstan	0,687	0,697	0,721	0,728	0,735	0,735
Moldova (Republic of)	0,676	0,696	0,716	0,709	0,710	0,710
Norway	0,901	0,912	0,914	0,908	0,915	0,915
Russian Federation	0,762	0,772	0,806	0,828	0,832	0,832
Tajikistan	0,649	0,671	0,667	0,662	0,660	0,659
Turkey	0,530	0,608	0,667	0,683	0,689	0,689
Turkmenistan		0,624	0,626	0,627	0,629	0,626
Ukraine	0,776	0,788	0,791	0,794	0,794	0,794
Uzbekistan	0,645	0,674	0,699	0,704	0,708	0,718
Worldwide average	0,583	0,617	0,637	0,646	0,650	0,651

The report of the United Nations Development Program shows that the ratio of education spending to national income from among 132 countries is 4.9%. Cuba, Vanuatu, Lesotho, Yemen, Brunei, Mongolia - 9%, Denmark, Guyana, Malaysia - 8%, America, England, France, Switzerland, Mexico, Iran, Italy, Oman, Germany, Spain, Hong Kong, Russia, Japan, Turkey and more than 4% in Romania, Armenia, Azerbaijan, Kyrgyzstan and Kazakhstan about 3% at the end of the list, Pakistan, United Arab Emirates, Indonesia, in countries such as Ecuador was recorded as 1%.

It should be noted that the measures taken are reflected in the education index as a whole. These factors are reflected in the education index, which is part of the human development index finally adopted by the United Nations Development Program, and reflects actual and potential education per capita in more than 180 countries around the world.

In this case, the share of GDP in GDP should be increased and the share of the other two sub-indices should be reduced. That is, the theoretically determined 0.33 effect for each sub-index may increase or decrease over time as a result of changes in the factors that make up the sub-indices. Regardless of the HDI's dependence on LE, EU and GDP, and regression analysis, statistical methods are used to verify the accuracy of the initial decision. The results will be as follows:

Chart 1. The specific weight of education indices in the human development index



In this case, the share of GDP in HDI development should be increased and the share of the other two sub-indices should be reduced. That is, the theoretically determined 0.33 effect for each sub-index may increase or decrease over time as a result of changes in the factors that make up the sub-indices. Regardless of the HDI's dependence on LE, EU and GDP, and regression analysis, statistical methods are used to verify the accuracy of the initial decision. The results will be as follows:

$$HDI = 0.294037 * LI + 0.358 * EI + 0.351 * GDP + 0.14$$

Table 8. Outcome of regression analysis of HDI dependence on LE, EE and GDP

Dependent Variable:HDI				
Included observations: 23				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
<i>EI</i>	0.358237	0.009302	38.51236	0.0000
<i>LI</i>	0.294037	0.008671	33.90859	0.0000
<i>EI</i>	0.350046	0.001371	255.3268	0.0000
R-squared	0.999957	Mean dependent var		0.693043
Adjusted R-squared	0.999953	S.D. dependent var		0.054207
S.E. of regression	0.000372	Akaike info criterion		-12.83573
Sum squared resid	2.76E-06	Schwarz criterion		-12.68762
Log likelihood	150.6109	Hannan-Quinn criter.		-12.79848
Durbin-Watson stat	1.708708			

The results can be considered significant. Thus, the high value of the adjusted regression coefficient indicates the correct selection of dependency. F is higher than the critical F value, which reflects the statistical reliability of the regression factor. Insufficient standard errors allow the t-statistics to be greater than the critical t prices that substantiates the stability of the coefficients and stability.



Results

As the results show, the main shareholder in the development of the human development index is the index of 0.335, indicating that a 10 percent increase in the education index will lead to a 3.36 percent increase in the human development index. In second place, the gross domestic product index is 0.350. The impact of the life expectancy index on the human development index was determined as a 10 percent increase and an increase of 2.29 percent. These findings confirm the accuracy of what we said before, and education has a special importance in terms of human development, the formation and development of life.

References

- Denison, Edward F. (1979) Accounting for Slower Economic Growth. Washington: Brookings Institution, 1979.
- European Union (2017) Final report of the expert group on quality of life indicators., p.119
- Gorelova N.A. (2003) The income policy and the quality of life of the population. Ed. Gorelova N.A. Peter, 2003, 652 pp
- Mayer V.F. (1988) Planning social development and raising the standard of living of the people. - M., 1988. – from
- Mikayilov F.G. (2013) Development inclinations of the Human Potential in the CIS countries EKO 2013 international conference on Energy, Regional integration, and Socio-economic development. Baku, Azerbaijan, september 5-6, 2013
- Mikayilov F.G. (2017) Poverty based on multidimensional criteria and its assessment problems 2017. pp204
- Polyakova, V.V. (2015) Osnovy theories of statistics: [studies. allowance] / V.V. Polyakova, N.V. Shabrova; M- Education and Science Ros. Federation, Ural. feder. un-t - 2nd ed., Corr. and add. - Ekaterinburg: Publishing house Ural. University, 2015. - 148 p.
- Safiullin, A. R. (2007) Welfare economics. Theory and practice: study guide / A. R. Safiullin. - Ulyanovsk: UISTU, 2007. - 111 p. Page 7
- www.azstart.org
- <https://ru.wikipedia.org/wiki/> Encyclopedic dictionary of F.A. Brockhaus and I.A. Efron. - S.-PB.: Brockhaus-Efron. 1890-1907
- <http://hdr.undp.org/en/countries/profiles/AZE>
- <http://www.hdr.undp.org/en/data#>
- <https://www.marxists.org/archive/marx/works/1844/manuscripts/wages.htm>
- <https://ec.europa.eu/eurostat/documents/118025/118123/Fitoussi+Commission+report>



Priority Directions of Financing Socio-Economic Development of Regions in Azerbaijan

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Abstract

The article outlines the essence of the state's regional policy and determines its main directions. Specifically, the criteria for determining the backward regions, which are of crucial importance in the formation of the regional policy of the state, have been substantiated. The article also substantiates the directions of financing the social and economic development of the regions. These justifications cover energy, transport and social development issues. The article outlines the factors that necessitate the state support to the development of the rural areas. The density of the population was noted as the main factor supporting the development of rural areas. Thus, in rural areas, due to low population density, both production and sales of products require large expenditures in comparison with urban areas.

Keywords: Regional policy, spatial inequalities, financing rural development, state programs

Introduction

Provision of regional development at the present stage of Azerbaijan's economic development is one of the most important priorities. Development of all regions of the country leads to overall development and increase of living standards of the population. Regional development policy is aimed at ensuring economic growth and sustainability of economic development. Based on the detection and elimination of structural problems in the country, state policy focuses on forming the necessary conditions for the development of regions and raising their competitiveness. The state's regional development policy, direct and indirect coordination of long-term economic decisions in order to address the challenges posed by regional development, in some cases, income, consumption, employment, investment and so on in regions can be seen as the conscious attempts of the state directed to control over the parameters. This policy is, first of all, related to the amount of public spending on the objectives of eliminating the differences between the regions on the development of regions and the level of socio-economic development. Thus, reaching any of the goals depends on decisions about the distribution of limited economic resources. This applies directly to one of the functions of finance. Second, regional development policy covers the impact of economic agents' decisions on the location of production and investment activities. So, the activity of any subject is related to the location. From this viewpoint, the state will



have the opportunity to influence the selection of such a space. By Influencing the formation of income of farmers, the state affects their decisions regarding the location of production

Method

The method of the research is based on a technical-economic analysis of the statistical data on local and regional progress and material well-being in Azerbaijan. The article uses an application-oriented approach to define areas of financing for regions.

Socio-economic development of regions in Azerbaijan

Space is an integral part of economic, social, ecological, political and cultural attitudes and processes, and their geographies define the conditions and forms of societal methods of how these processes can be developed (Markusen A. (1987) Regions: The Economics and Politics of Territory, Rowman and Allenheld, Totowa, NJ.). The unevenness or differentiation of the economic space has a significant impact on the state structure, the structure and efficiency of the economy, the intuitional changes and the tactics of socio-economic policy (p.41) (Regional development: the experience of Russia and the European Union. / A.G. Granberg, Moscow: ZAO "Izd-vo" Economics ", 2000, 435p.). Local and regional progress and material well-being depend on the continued growth of employment, income and productivity, which is an integral part of economic development (STORPER M. (1997) The Regional World. Territorial Development in a Global Economy. Guilford, London.). From this point of view, the concept of "regional development" is related to the change in the number of population, employment, income and value-added regional productivity. It also means social development, which includes the health and well-being of the community, the quality and creativity of the environment (Theories of Local Economic Development: Perspectives from Across the Disciplines/Edited by Richard D. Bingham and Robert Meir. London: Sage Publications, pp. 319. C.27). In our view, the socio-economic development of the country is related to the socio-economic development of the regions and the elimination of differences between them. Regional development depends on geographical and demographic factors, specialization and productivity, physical and human capital, infrastructure and innovation. As the factors on the regions differ, their developmental levels also differ. This situation is widespread even in developed countries. For example, in Belgium the gross domestic product (GDP) per capita in the capital is 2 times more than in the province of Flanders, 2.8 times than in the province of Wallonia, and in the Netherlands this indicator in Antwerp is 1.8 times higher than the province of Eno (Regional policy of the EU countries. IMEMO RAS, Moscow: 2009, 230 p. from. 14.). Studies carried out in 1995-2007 by member states of the Organization for Economic Cooperation and Development (OECD) have shown that 32 percent of economic growth has been achieved by about 4 percent of the regions. The emergence of such a situation affects the geographical position of certain regions, their natural vulnerability levels, climates, and the quality of land, but in many cases market forces deepen regional inequality.

The main purpose of the regional economic (or socio-economic) policy is to express the compromise between economic efficiency and social justice, although it is expressed in different ways in different countries (A.G.Granberg. Bases of regional economy. Moscow: State University Higher School of Economics, 2003, 495 pp., P. 350). For example, in most OIC member countries, regional equilibrium (justice) and efficiency (growth and competitiveness) are based on regional policies. Examples of regional balances include the priority of the development of the backward regions in Denmark, the regional balance in Finland, the territorial integrity of France, and the equal living conditions in Norway (pp. 14) (Regional Development Policies in OECD Countries. Paris:OECD Publishing, 2010, 388 p.). The scale of the development of the regions has a significant impact. It is assumed that the rural area has a higher position in the distribution of economic resources than cities. In such a situation, the development of infrastructure for improving the competitiveness of vulnerable regions can be ensured by the allocation of economic resources to the benefit of vulnerable regions due to the state's funding. Thus, the region's competitiveness has a significant impact on the speed and value of material, financial and information flows in that region.



Results, Conclusions and Recommendations

According to the socio-economic development of the forces, the role of the market in reducing regional inequalities is limited and this usually causes concentration of production in separate regions. Therefore, the state implements the redistribution of economic resources in favor of the regions with low development levels to reduce disproportions in the territorial structure of the national economy. In such circumstances, it is necessary to determine the criteria for the implementation of the resource allocation. For example, in the European Union, these criteria are the gross domestic product per capita, the unemployment rate and the rate of job creation, rural and agrarian regions (9. A. Cappelen, F. Castellacci, J. Fagerberg, B. Verspagen. The Impact of Regional Support on Growth and Convergence in the European Union. Eindhoven Centre for Innovation Studies, The Netherlands Working Paper 02.14, September 2002, 27 pp, p. 7.). Thus, in the European Union, if the per capita Gross Domestic Product in the region is 75% of the average, this region is considered to be the backward. Also, the gross domestic product per capita and the share of agriculture in employment is one of the factors that are considered in determining the state support to the regions. From this point of view, it is possible to identify the regions in Azerbaijan that need to be supported. Although the gross domestic product is not calculated in the regions, the gross output per capita on key areas in the regions in 2012 varied from 5.1 per cent to 39.1 per cent of the country's average (Except for the Nakhchivan economic region, this figure is 95.8 percent in this region). As you can see from this criterion, all regions (except for the city of Baku only) are included in the category of regions that must be supported. Also, in 2012, 37.7 percent of the employed population accounted for agriculture, forestry and fishing, which is mainly covering the regions. In this regard, supporting the development of agriculture in the regions, as well as the development of non-agrarian spheres should be prioritized.

At present, the Azerbaijani government has the necessary capacities to finance the development of the regions. Successful implementation of oil strategy has increased the volume of revenues in the country. An important part of these revenues remains at the disposal of the state. So in 2011, 50.1 percent of the remaining revenues in the country were aimed at saving and only 42.4 per cent of these resources were directed towards implementing investments across the country.

Also, 62.0 percent of total savings in the country in 2011 were at the disposal of the state, of which only 44.3 percent were used. Over the recent years, the state's overfulfilment of the consolidated budget revenues has led to an increase in the assets of the State Oil Fund of Azerbaijan. Thus, the resources of this fund will be \$ 34.1 billion USD by the end of 2012, which is approximately half of the gross domestic product.

Limitations of financial opportunities in the regions of Azerbaijan and poor development of institutional structures significantly increases the role of the state in regional development. Despite the implementation of two regional development programs in the country over the past 10 years: State Program on Socio-Economic Development of the Republic of Azerbaijan (2004-2008) and State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan in 2009-2013, the difference between Baku and other regions has not diminished significantly. Taking this into account, the Government of Azerbaijan has adopted the State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018. In our view, the precise definition of regional development programs is crucial in terms of the effectiveness of the limited economic resources distribution. These goals are different in different countries. For example, the goal of a regional policy in the UK is to achieve a high and stable level of economic growth and employment across the country by providing full use of the existing potential of each region. In Poland, regional policies are aimed at supporting economic growth pole (large cities), in addition to stimulating the development of the backward regions, especially southern regions. In general, in the European Union, regional programs covering 2007-2013 include goals such as mergers, competitiveness, employment and foreign co-operation (Governing Regional Development Policy: The use of performance indicators. Paris: OECD Publishing, 2007, 198 p, p.34.). From this



point of view, it is important to identify the objectives of regional development programs. The main objective of the "State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018" is the continuation of measures to develop non-oil sector, diversification of the economy, rapid development of regions, especially infrastructure and social services as well as further improvements. In our opinion, the main goal here is to accelerate the rapid development of the regions (including the development of the non-oil sector and the diversification of the economy). Nevertheless, the mentioned program would provide a high tempo of economic growth by identifying development poles in the country and directing resources to the development of these poles.

To achieve the goal set out in the "State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018", it is intended to achieve further improvement of the provision of infrastructure in the regions, including the provision of communal services to the population, accelerating the development of entrepreneurship in the direction of export-oriented and competitive products, increasing the employment rate of the population, especially the rural population, and the continuation of measures to reduce the poverty level.

One of the most important tasks facing the government is to increase employment in the regions. Thus, by the end of 2012, the population in the country increased by 33.2 per cent compared to 1989 and 17.6 per cent in comparison to 1999, while the number of able-bodied population increased by 66.5 per cent and 43.4 per cent respectively. As a result, the share of those who are able to work in the total number of the population increased from 55.4 percent in 1989 to 56.8 percent in 1999, and to 69.2 percent in 2012. It should be noted that this figure reached its peak, 69.3 percent in 2011. As you can see, at present, the country has entered into the most aggressive period in terms of employment. In 2012, the share of Baku in the country's population was 23.0 percent, while its share in hired workers was 44.7 percent. Also, the latter figure increased by 1.8 percent compared to 2000. In 2012, the share of hired workers in the total number of the population was 30.7 percent in Baku, whereas in economically distant regions this figure was 11.4 percent. In particular, the rate of natural increase in rural areas in the country being relatively high, increases the importance of rural development and employment promotion. For this purpose, the following measures are envisaged in the field of employment in the State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan for 2014-2018:

- expansion of regional economic relations;
- Formation and development of a fair competition environment, ensuring compliance with labor legislation;
- directing a portion of revenues from oil exports to human capital development and applying advanced technology and innovations to the development of science-intensive industries;
- Creating a balance between the proposed workforce and the number of jobs available;
- Reduction of population migration through further development of social and communal infrastructure in rural areas;
- Increasing the level of employment of women and youth.

In general, the creation of new jobs in the country is one of the key factors that determine the economic policy of the state and it will depend on the measures taken to improve the competitiveness of the regions. One of the main directions of raising competitiveness of the regions is related to the development of infrastructure.

One of the important areas in the development of the regions is the development of transport. Investments in transport infrastructure increase the region's internal and regional ties with other regions. This leads to the improvement of conditions for production, tourism and commerce, as well as the increase in competition and concentration across the country by reducing the time of transportation as well as the quality and price ratio of transportation services. The development of transport infrastructure in the country is also a necessary condition for the specialization of regions.



It should be noted that the development of transport infrastructure has a direct, indirect, and derivative influence on the development of employment in the regions. Direct and indirect impacts are related to the creation and operation of transport infrastructure, whereas indirect impacts result from the impact of transport infrastructure on the region's competitiveness. As a result of the development of transport infrastructure, the time and cost savings, increased access to transport services, and reliability increase productivity in production. For example, the increase in the quality of motor roads can increase the vehicle lifetime and reduce its current operating costs. Also, increasing access to markets leads to increased productivity by creating new opportunities for business and raising competition. Thus, the development of transport infrastructure has a significant impact on employment and economic growth by increasing labor productivity.

The energy supply is crucial in the formation of competitiveness of the regions. Expansion of the electricity grid causes a reduction in system costs associated with investment projects in the regions. Over the past 2004-2013, 17 power plants with a total capacity of 2000 megawatt have been built in the regions, more than 10,000 kilometers of power lines and more than 1,500 substations have been constructed or reconstructed. During the mentioned period, 40,000 kilometers of gas lines were constructed or repaired in the field of natural gas supply, and the level of gas supply in residential houses reached 83.4 percent from 34 percent. At the same time, economic growth in the regions may require additional energy resources.

One of the key priorities in the development of the regions is the financing of housing and communal services. So, in most regions of Azerbaijan, in housing and utilities sector, the current level is significantly below the established norms. For example, in 2012 the average per capita housing area in Azerbaijan was 13.1 m², whereas in Sweden this indicator was 52 m², in the UK 34.5 m² and in the US 96 m². Also, the proportion of housing commissioned in the country in 2012 was about 1.9 times less than in 1990. Also, if we accept the amortization period of a residential building for 50 years, then we come to a conclusion that the depreciable part of the country's housing stock is more than 2141.2 thousand square meters of housing put into use in 2012. As it is evident, increasing the housing construction is needed to improve the living conditions of the population in the country. Also, according to a survey conducted by the State Statistical Committee in 2010, an average household in the country consumed 2966.7 kWh of electricity in 2009. This figure was less by 907.6 kWh in Nagorno-Shirvan economic region, 772.4 kWh in Guba-Khachmaz economic region, 1040.8 kWh in Sheki-Zagatala economic region, 505.8 kWh in Ganja-Gazakh economic region, 412 kWh in Nakhchivan economic region and 756.8 kWh in Lankaran economic region. In the mentioned year, the average gas consumption per household was 2143.0 cubic meters, which was less by 619.9 cubic meters in the Nakhchivan economic region, 68.0 cubic meters in the Ganja-Kazakh economic region and 426.7 cubic meters in the Lankaran economic region m, and 345.2 cubic m in the Aran economic region. In 2012, 54.8 percent of households lived in urban areas, 45.2 percent in rural areas, while households with central heating systems account for 12.8 percent, households with network gas - 75.2 percent, the water pipe share of households was 78.8%. Also, one of the priorities is the implementation of measures to improve the population's housing coverage in conditions of population growth. In this area, the continuation of reforms in the housing and communal sector in the regions, supporting the development of the real estate market, provision of low-income citizens in need of housing in the regions, including young families, reconstruction and improvement of the water supply and sewerage system measures are planned to be implemented in 2014-2018. For example, within the project "Reconstruction of water supply and sewerage system of Lankaran city", it is planned to build ultrasonic cleaning plant based on a new technology with the output of 30,000 cubic meters per day. The project envisages construction of 15,000 cubic meters of water reservoir, pumping station, 200 km of various diameter distribution network, 180 km long sewerage network and 8 sewage pumping stations.

In recent years, large-scale investments have been made in education in the regions, but this sector still remains a priority. In particular, the coverage of regions with pre-school institutions is low. For instance, in the Lankaran



economic region, the level of provision for kindergartens is 15 per cent, in Nagorno-Shirvan economic region - 8.2 per cent and it is 23 per cent in Sheki-Zagatala economic region.

Also, the calculations show that the number of seats in the regions is smaller than the numbers specified in the standard (AzDTN 2.6-1). From this point of view financing of construction of cultural facilities is one of the priority areas.

It should be noted that, in addition to investment costs in the aforementioned areas, a substantial part of maintenance costs should be provided through the state budget. From this viewpoint, it is required to link the revenues of state budget with increasing costs.

In 2012, 60.9 percent of the population in the economic regions of Azerbaijan (excluding Baku) was made up of rural population. In this regard, the social well-being of a significant part of the population depends on the development of rural areas. As already mentioned, geographically, economic growth is mainly based on scalability and concentration in certain regions and cities. That is, the regions that can not mobilize enough opportunities to obtain employment and income are left behind. From this point of view, rural areas have a number of shortcomings. Thus, rural areas do not have a density which has a positive impact on the growth of the economy in a certain space. For example, according to the definition of the Organization for Economic Co-operation and Development (OECD), if less than 150 people fall per square meter, then such communities are considered as rural communities.

If the share of the rural population exceeds 50 per cent in the region, then such region is mostly considered rural, if this share is less than 15 per cent then it is considered an urban region, and finally if it is between 15 and 50 percent, then such region is considered to be a middle-sized region...(OECD Rural Policy Reviews: Germany. Paris: OECD Publishing, 2007, 200 p, p.31.) In general, the American economist J.Makal has included the following factors limiting the development of rural areas (Magill, John (2003), "Rural Economic Development" in Sammis B. White, Richard D. Bingham and Edward W. Hill (eds.), Financing Economic Development in the 21st Century, M.E. Sharpe, Inc., New York, pp. 266-276.):

- Great distance to markets;
- Individual meetings of people living in rural areas (these meetings differ in comparison with towns);
- Limited access to capital (low competition among the rural lenders causes the capital price to be high);
- Limited scalability capabilities;
- Limited network of entrepreneurs;
- Deficiencies in information and business services;
- Restrictions on the relationships of rural economies with the rest of the economy;
- Lack of qualified personnel.

The above mentioned bring the state promotion of rural development to the fore. Also, agriculture is a key element of rural livelihood and is closely linked to other economic, environmental and social development forces in these regions. From this point of view, the development of agriculture affects the well-being of the rural population. In 2012, 37.7 percent of the employed population accounted for agricultural, fishing and forestry, whereas those employed were 38.4 percent of those living in rural areas. Also, about 59.1 percent of the working-age population living in rural areas operated in this area. In 2012, the economically active population in the country was 50.4 percent of the total population. Given these figures, estimates show that around 76 percent of the economically active population in rural areas are involved in agriculture, fishing and forestry. It should be noted that in the countries included in the Organization for Economic Cooperation and Development, only 10% of existing labor resources in rural areas are engaged in agriculture and forestry, and their support is needed (The New Rural Paradigm: Policies and Governance. Paris: OECD Publishing, 2006, 168 p, p.13.). At the same time, income per capita in agriculture is typically lower than in other sectors of the economy. So in 2012, an average of about 135 AZN added value was created per month for a person engaged in agriculture, fishing, and



forestry, then we come to the conclusion that in rural areas income from employment is relatively small. From this point of view, the state is required to support rural areas as well as agriculture.

The measures to support the development of the agricultural sector are multilateral. Thus, the development of the agricultural sector affects food security, raw material supply, and ecological status. Thus, in 2012, 55.1% of the country's land was used for agricultural purposes, and 29.9% of these land areas were irrigated lands. From this point of view, agriculture has the potential to reduce land quality and to seriously affect water pollution. In such circumstances, policies for agricultural development should include environmental protection and biodiversity conservation. Also, since rural areas are at a distance from major markets, due to the low concentration in these places, infrastructure density and development levels are low, thus causing additional costs comparing to urban areas. Therefore, it is necessary to provide a state support to the development of rural areas, especially the agricultural sector.

A modern approach to rural development envisages the implementation of large-scale investment projects, along with granting subsidies to the development of regions dominated by agriculture. These investments are made in order to create favorable conditions for living in the regions and to increase their competitiveness. This is related to the provision of necessary production and social infrastructure to rural areas. Also, the competitiveness of the agricultural sector depends largely on the development of the fields serving this area and staffing. In this regard, establishment of warehouses in the regions, agro-services serving agriculture, improving the quality of veterinary and phytosanitary services, seeds, fertilizers and pesticides, development of necessary sales channels, such as the organization of information and communication services for agricultural producers, are factors that determine the competitiveness of the agricultural sector.

Development of agricultural products processing industry in regional centers and rural areas plays an important role in the provision of developing rural areas. There are great opportunities for the development of the food industry in the republic. Thus, in 2012, the volume of production of food products, including beverages, amounted to about 25 percent of the 1990 level and this decline was mainly due to a decrease in the production of export-oriented food products. Also, the complex processing of raw materials in the food industry is of crucial importance. Thus, in the processing of agricultural raw materials, products and production waste are also obtained along with the main product. For example, except for meat products, the waste of cut animals - hair, nails, horns, bones, gut, blood, etc. are also obtained in meat production. These waste products are used in various types of products (combinations, buttons, brushes, musical instruments etc.) and more than 40 medicines, animal feeds and so on. can be produced by using these wastes. The absence of waste recycling facilities reduces the efficiency of production. Therefore, the complex development programs for separate areas of food products should be developed in the republic, and this program should take into account the processing stages of agricultural raw materials.

In general, the development of small and medium-sized businesses on the basis of administrative district centers is crucial for the creation of developmental poles in the country. Meanwhile, the specialization of agricultural products in separate regions, the creation of specialized warehouses, transportation economies and processing facilities can play an important role in the development of the regions.

Along with the food industry, there are available opportunities for the development of light industry, mechanical engineering and metallurgy industry, building materials industry in the regions. It should be noted that the development of local raw materials based on the "State Program on socio-economic development of the regions of the Republic of Azerbaijan in 2014-2018" has been identified as a priority in this area. Nevertheless, it would be expedient to further define industry development opportunities within the framework of the mentioned program. In our view, it is required to conduct research in the following areas to identify industry development trends:



- available natural resources and their estimated quantities in the country;
- structure and volume of agricultural production;
- volume of future demand for certain consumer products;
- volume of import;
- successfully developing industries in countries with similar volume and structure of existing financial, labor and natural resources;
- possible interaction of the existing fields in the country with local and foreign related areas;
- opportunities for development based on vertical or horizontal integration of existing production;
- possible diversification of existing production;
- capacity to increase production volumes due to the scale of production.

It should be noted that there are limited opportunities for the development of many areas of industry at the expense of only domestic market. Only industrial products that are oriented to the domestic market ultimately lose capacity to scale-up and are not competitive in the long term. Therefore, it is possible to develop the country's industrial potential by creating relatively large industrial companies. At present, the creation of such industrial companies in the country is mainly possible with state participation and financial support. In such circumstances, certain actions can be taken in specializing in certain industries of separate regions in the country. In recent years, the black and non-ferrous metallurgy industry in the country has been primarily developed in the Ganja-Gazakh economic region. In our opinion, while the areas of food and light industries are mainly developed in line with their specialized agricultural products in the regions, it is advisable to develop industrial production based on raw materials and employment factors.

The role of staff in achieving success in the above-mentioned direction is crucial. Therefore, the training of staff and raising their knowledge and skills in the country should be one of the main directions of government policy. In recent years, state funding of education in foreign countries, the development of vocational education and etc. steps are among the measures taken in this direction. Nevertheless, the development of separate regions should be clearly defined and the training of personnel in these areas should be financed.

Thus, direct and indirect financial support of the state is required in these areas. Determination of the role of the state in the financing of socio-economic development of the regions is also made based on the evaluation of the opportunity to participate in this development of the private sector. Thus, regional policy in Azerbaijan is aimed at raising competitiveness in the regions, creating new jobs and increasing social security. Measures in this direction cover both economic and social and environmental issues. Since 2004, regional development programs in Azerbaijan have led to an increase in the overall level of development of the regions, but did not substantially reduce the difference between Baku and other regions due to the level of income. Meanwhile, five-year regional development programs implemented since 2004 have played a crucial role in mobilizing financial resources and promoting regional development.

References

- Cappelen, F. Castellacci, J. Fagerberg, B. Verspagen. The Impact of Regional Support on Growth and Convergence in the European Union. Eindhoven Centre for Innovation Studies, The Netherlands Working Paper 02.14, September 2002, 27 pp, p. 7.
- A.G.Granberg. Bases of regional economy. Moscow: State University Higher School of Economics, 2003, 495 pp., P. 350
- Governing Regional Development Policy: The use of performance indicators. Paris: OECD Publishing, 2007, 198 p, p.34.
- Magill, John (2003), "Rural Economic Development" in Sammis B. White, Richard D. Bingham and Edward W. Hill (eds.), *Financing Economic Development in the 21st Century*, M.E. Sharpe, Inc., New York, pp. 266-276.



- Markusen A. (1987) Regions: The Economics and Politics of Territory, Rowman and Allenheld, Totowa, NJ.
- OECD Rural Policy Reviews: Germany. Paris: OECD Publishing, 2007, 200 p, p.31.
- Promoting Growth in All Regions. Lessons from across the OECD. OECD Publishing. 282 p. p.19-20
- Regional development: the experience of Russia and the European Union. / A.G. Granberg, Moscow: ZAO "Izd-vo" Economics ", 2000, 435p.
- Regional Development Policies in OECD Countries. Paris:OECD Publishing, 2010, 388 p.
- Regional policy of the EU countries. IMEMO RAS, Moscow: 2009, 230 p. from. 14.
- STORPER M. (1997) The Regional World. Territorial Development in a Global Economy. Guilford, London.
- The New Rural Paradigm: Policies and Governance. Paris: OECD Publishing, 2006,168 p, p.13.
- Theories of Local Economic Development: Perspectives from Across the Disciplines/Edited by Richard D. Bingham and Robert Meir. London: Sage Publications, pp. 319. C.27



Effect of Teachers' Argumentativeness Perceptions on Their Organizational Dissent Perceptions

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Abstract

The study which aimed to identify whether teacher perceptions on argumentativeness affected their organizational dissent perceptions was conducted by using the relational screening model. The study group was composed of 148 teachers employed at primary, secondary and high schools in Yeniçağa District of Bolu during 2018-2019 academic year. Argumentativeness Scale and Organizational Dissent Scale were used to collect data. Teachers were found to display high level perceptions about argumentative approach while they had moderate level perceptions about argumentative avoidance and they displayed high level perceptions for organizational dissent in general and in all its subscales such as vertical, horizontal and displaced dissent. While argumentative approach was found to affect organizational dissent as well as vertical dissent, it had no effect on displaced dissent. It was found that argumentative avoidance affected displaced dissent but had no effect on organizational dissent and vertical dissent. Argumentative avoidance and argumentative approach were found not to affect horizontal dissent.

Key Words: Teacher, Argumentativeness, Dissent, Organizational Dissent

Introduction

People continue their lives by establishing organizations in communities to meet their needs. Organizations can achieve their goals and fulfill their functions only by following certain policies and implementing specific practices. However, employees in organizations may not always be satisfied despite these policies and some of the implemented practices and by presenting new ideas; they may criticize these practices and express viewpoints that show that their opinions differ from their administrators or colleagues. In this process some employees are more capable, willing and energetic in expressing different ideas while some of them may even avoid expressing dissent.

Discussion, an important concept for the development of thinking skills of individuals, is a well-intentioned activity that includes reasoning and decision making (Stewart and Roach, 1998) and it is at the center of argumentativeness and the basis of persuasion process (Rancer, 2004). Argumentativeness is used for an individual's position, stance and defense regarding the subject of discussion and it is used as an attempt to refute the position of the opposing party (Infante, Rancer and Womack, 2003; Rancer, 1998). While individuals that are high in argumentativeness have low motivation to avoid discussions; those that are low in argumentativeness are highly motivated to avoid discussions. Therefore, individuals that are high in argumentativeness display a high tendency to argue and discuss (Hamilton and Mineo, 2002) and people that are low in argumentativeness tend to display a low tendency in this respect (Rancer and Avgtis, 2006). Compared to people that are low in argumentativeness, individuals that are high in argumentativeness are more motivated to convince the other party in the persuasion process (Infante, Step and Horvarth, 1997, cited in: Turunç, Eser and Dinç, 2018). In addition, individuals that are high in argumentativeness may use argumentative elements in communication with less anxiety and see discussion as an exciting action (Rancer & Avgtis, 2006). Individuals that are low in



argumentativeness are indifferent to this concept and avoid discussions. When they face such challenging situations, they want to direct the issue to social and emotional problems. Even if they are persuaded to argue, they are shy in expressing the situations/events that they are not satisfied with. They refrain from discussions by using redundant sentences in communication to a lesser extent and believe that they may be unsettled to talk about controversial issues (Rancer and Avgtis, 2006).

In terms of organizational climate, argumentativeness is a phenomenon that contributes to organizational development when effectively managed in an environment established by members but may cause harm when it is not managed well. Administrators in organizations need their employees' input and opinions to make the right decisions, respond to rapidly changing environmental conditions and solve problems (Morrison, 2011; cited in: Ökten and Cenkçi, 2013). In this respect, it is very important for administrators to exhibit positive argumentativeness traits and trust themselves while they dissent/challenge their employees. As a matter of fact, dissent has a great role in protecting the rights and freedoms of individuals as long as it does not turn into destructive and violent behavior (Dağlı, 2015). In this context, it can be claimed that the concept of employees' argumentativeness is important in the process while discussing their organizational dissent behaviors because individuals that are high in argumentativeness use argumentativeness to access information, prevent and reduce conflict (Rancer, Baukus and Infante, 1985) by identifying the trait as productivity and playful efforts (Rancer, Kosberg and Baukus, 1992). On the other hand, individuals that are low in argumentativeness try stay away from discussions because they characterize it as negative and hostile (Rancer et al., 1985) and they can either avoid dissent or exhibit negative behaviors. In this sense, it can be assumed that there is a relationship between argumentativeness and organizational dissent.

Dissent, which means employees' opposition towards an idea, an action or an attitude in their organizations, is defined at the organizational level as employees' voicing a number of conflicts in their organizations and expressing their opinions about organizational practices and policies (Kassing, 1998). Organizational dissent also means employees' disapproval for policies, practices and behaviors adopted by their administrators by protesting and objecting (Özdemir, 2010). Generally, members of an organization express their dissent after perceiving that there is a problem in their organizations. During this perception process, they realize the seriousness of the problem and start thinking of the reaction they will receive when they express dissenting opinions (Graham, 1986). The dissent process which explains why and how employees express opposition has four phases. In the first phase, the employee distinguishes his/her opinion from that of the organization and this separation of opinions emerges as a triggering factor. After the second phase in which the employee focuses on individual, relational and organizational factors that affect the decision of dissent and the selection of methods to express dissent, the employee considers the risks of being a dissident. The process ends when the employee shares his/her dissenting thoughts with other employees (Kassing, 1998). Organizational dissent is caused by the imposition of injustice, infringement of employee rights, issues about the methods of decision-making, ineffectiveness in the organization, problems related to duties and responsibilities, resources, ethics and performance evaluation, inability to prevent harm and the concept of organizational change (Kassing and Armstrong, 2002).

Kassing (1998) addressed organizational dissent in three forms as vertical, horizontal and displaced dissent. Vertical dissent is directly expressed for top executives in the organization; horizontal dissent is expressed for those who are hierarchically in the same status in the organization as the dissident and displaced dissent is expressed for individuals that are external to the organization (Kassing, 1998; Kassing, 2011).

Dissent behaviors are as important as argumentativeness in organizations that aim to ensure development and continuity since these behaviors provide input gained from different ideas and opinions. Although dissent is associated with unfavorable concepts such as conflict and disagreement, it is an important element of



communication and development since it provides employees with feedback. Thanks to dissent, those who correctly identify problems experienced in organizations can present factual and functional solutions in a more realistic way to those who face problems. On the other hand, employees can propose solutions and show opposition only within a fair and democratic organizational structure (Kavak and Kaygın, 2018). Therefore, organizational dissent not only contributes to the development of democracy in organizations but also to the identification, prevention and solution of problems (Kassing, 2002; Özdemir, 2010) and to the renewal of the organization (Özdemir, 2010).

Argumentativeness can be addressed as a dissent behavior because it expresses the tendency of individuals to defend their positions regarding controversial issues in the communication process and to verbally target the position and stance of the other party (Infante and Rancer, 1982). This study conducted in line with this argument aimed to reveal the relationship between argumentativeness and organizational dissent and to guide the practitioners by contributing to literature with the help of the obtained results. The literature review for this study presented no prior investigations, especially in educational institutions, on the relationship between teachers' argumentativeness and organizational dissent perceptions or the effects of teachers' argumentativeness on their organizational dissent perceptions. In this context, this study aimed to identify teacher perceptions on argumentativeness and organizational dissent and to determine whether teacher perceptions on argumentativeness affected their perceptions on organizational dissent. Answers to the following questions were sought in this research:

- What are teacher perceptions on argumentativeness and organizational dissent?
- Do teacher perceptions on argumentativeness predict their perceptions on organizational dissent?

Method

Research model

This study which aimed to identify teacher perceptions on argumentativeness and organizational dissent and to determine the effect of teacher perceptions on argumentativeness on their organizational dissent perceptions was carried out by utilizing the relational screening model (Karasar, 2005).

Study group

The study group in this research consisted of 148 teachers employed at primary, secondary and high schools in Yeniçağa district of Bolu province in the 2018-2019 academic year. Some demographic information regarding the participating teachers is as follows: 78 of the teachers were male and 70 were female. Of the participants, 81 were classroom teachers and 67 were branch/subject matter teachers. In terms of seniority, 28 participants had 1-5 years teaching experience, 30 had 6-10 years, 46 had 11-15 years and 44 had 16 years or more seniority. 135 teachers had undergraduate degrees whereas 13 had graduate degrees.

Data collection method and instrument

A scale composed of two parts was used to collect data in this study. The first part included 4 items related to teachers' demographic characteristics. The second part included the short form of "Argumentativeness Scale", which was developed by Infante and Rancer (1982) and whose validity and reliability analysis was conducted by Turunç, Eser and Dinç (2018) and the "Organizational Dissent Scale" which was developed by Kassing (1998) and adapted to Turkish by Ergün ve Çelik (2018) who also conducted the validity and reliability analysis of the scale. Argumentativeness Scale has two dimensions as *approach* and *avoidance*. Researchers stated that it would be more useful if the two dimensions of the scale were evaluated separately instead of holistically. The Likert scale rates the items on a 5-point scale from *never* to *always* and the Cronbach's Alpha coefficient for both dimensions is calculated to be 0.71. This study determined the reliability coefficient of approach dimension as .80 and the reliability coefficient of avoidance dimension as .82. Organizational Dissent Scale is also a five-point Likert scale rated from *completely disagree* to *completely agree*. The Cronbach Alpha coefficient of the scale is



.96 for vertical dissent dimension, .95 for horizontal dissent dimension, .97 for displaced dissent dimension and .96 for the entire scale. The result of the reliability analysis performed in this study determined the reliability coefficient as .92 for vertical dissent dimension, .91 for horizontal dissent dimension, .93 for displaced dissent dimension and .92 for the entire scale.

Data analysis

Before data analysis, normality was examined by Kolmogorov-Smirnov test and it was found that the data displayed normal distribution. According to this result, means and standard deviation were used to determine teacher perceptions on argumentativeness and organizational dissent and regression analyzes were conducted to determine the effect of the teacher perceptions on argumentativeness on their organizational dissent perceptions.

Findings

Table 1 displays teacher views on argumentativeness sub scales.

Table 1. Teacher views on the sub scales of argumentativeness

Scale	N	$\bar{X}$	SD
Argumentative approach	148	4.01	0.72
Argumentative avoidance	148	2.84	0.83

According to Table 1, teachers had high perception levels in regards to argumentative approach ($\bar{X}=4.01$) while they had moderate levels of perception ($\bar{X}=2.84$) for argumentative avoidance.

Table 2 displays teacher views on organizational dissent in general and its sub scales.

Table 2. Teacher views on organizational dissent

Scale	N	$\bar{X}$	SD
Vertical Dissent	148	4.25	0.67
Horizontal Dissent	148	4.39	0.71
Displaced Dissent	148	4.42	0.85
Organizational Dissent Total	148	4.33	0.59

* $p<0.01$

According to Table 2, teachers had high perception levels for organizational dissent in general ($\bar{X}=4.33$) and its sub scales: vertical dissent ($\bar{X}=4.25$), horizontal dissent ($\bar{X}=4.39$) and displaced dissent ($\bar{X}=4.42$).

Table 3 displays the results of the multiple regression analysis conducted to determine whether teachers' argumentative approach and argumentative avoidance perceptions predicted their horizontal dissent perceptions.

Table 3. Results of the multiple regression analysis conducted to determine whether argumentative approach and argumentative avoidance perceptions predicted horizontal dissent perceptions

Dependent variable	Independent variable	β	t	p	F	p	R^2
Horizontal dissent	Fixed	1,38	4,86	0,00			
	argumentative approach	0,35	3,29	0,00	54,192	0,0	0,48
	argumentative avoidance	0,04	0,39	0,00		0	

* $p<0.01$

Examination of Table 3 for the results of regression analysis to see whether argumentativeness sub scales predicted horizontal dissent, a sub scale of organizational dissent, shows that argumentativeness sub scales significantly predicted horizontal dissent ($F=54,192$; $p<0,01$). Argumentativeness sub scales predicted about 48% of the total variance in horizontal dissent ($R^2=0,48$). Examination of p values pointed to the fact that argumentativeness sub scales were



significant predictors of horizontal dissent ($p < 0,01$).

Table 4 displays the results of the multiple regression analysis conducted to determine whether teachers' argumentative approach and argumentative avoidance perceptions predicted their vertical dissent perceptions.

Table 4. Results of the multiple regression analysis conducted to determine whether argumentative approach and argumentative avoidance perceptions predicted vertical dissent perceptions

Dependent variable	Independent variable	β	t	p	F	p	R^2
Vertical dissent	Fixed	1,08	4,80	0,00	53,16	0,00	0,53
	argumentative approach	0,42	3,79	0,00			
	argumentative avoidance	-0,02	-0,23	0,78			

* $p < 0,01$

Examination of Table 4 for the results of regression analysis to see whether argumentativeness sub scales predicted vertical dissent, a sub scale of organizational dissent, shows that argumentativeness sub scales significantly predicted vertical dissent ($F=53,16$; $p < 0,01$). Argumentativeness sub scales predicted about 53% of the total variance in vertical dissent ($R^2=0,53$). Examination of p values pointed to the fact that while argumentative approach sub scale was a significant predictor of vertical dissent ($p < 0,01$), argumentative avoidance sub scale did not have a statistically significant predictive value on vertical dissent ($p > 0,01$).

Table 5 displays the results of the multiple regression analysis conducted to determine whether teachers' argumentative approach and argumentative avoidance perceptions predicted their displaced dissent perceptions.

Table 5. Results of the multiple regression analysis conducted to determine whether argumentative approach and argumentative avoidance perceptions predicted displaced dissent perceptions

Dependent variable	Independent variable	β	t	p	F	p	R^2
Displaced dissent	Fixed	1,01	7,23	0,00	65,30	0,00	0,57
	argumentative approach	-0,06	-0,39	0,71			
	argumentative avoidance	0,34	3,52	0,00			

* $p < 0,01$

Examination of Table 5 for the results of regression analysis to see whether argumentativeness sub scales predicted displaced dissent, a sub scale of organizational dissent, shows that argumentativeness sub scales significantly predicted displaced dissent ($F=65,30$; $p < 0,01$). Argumentativeness sub scales predicted about 57% of the total variance in displaced dissent ($R^2=0,57$). Examination of p values pointed to the fact that while argumentative avoidance sub scale was a significant predictor of displaced dissent ($p < 0,01$), argumentative approach sub scale did not have a statistically significant predictive value on vertical dissent ($p > 0,01$).

Table 6 displays the results of the multiple regression analysis conducted to determine whether teachers' argumentativeness predicted their organizational dissent perceptions.

Table 6. Results of the multiple regression analysis conducted to determine whether argumentative approach and argumentative avoidance perceptions predicted organizational dissent perceptions

Dependent variable	Independent variable	β	t	p	F	p	R^2
Organizational	Fixed	1,41	5,87	0,00	61,01	0,00	0,46
	argumentative approach	0,38	10,19	0,00			



dissent	argumentative avoidance	-0,04	-0,51	0,71

*p< 0.01

Examination of Table 6 for the results of regression analysis to see whether argumentativeness sub scales predicted displaced dissent, a sub scale of organizational dissent, shows that argumentative approach, a sub scale of argumentativeness, significantly predicted organizational dissent ($F=61,01$; $p<0,01$). Argumentative approach predicted about 46% of the total variance in organizational dissent perceptions ($R^2=0,46$). On the other hand, argumentative avoidance sub scale did not have a statistically significant predictive value on organizational dissent ($p>0,01$).

Results, Conclusions and Recommendations

Teacher perceptions on argumentative approach, a sub scale of argumentativeness were high, while their perceptions on argumentative avoidance were moderate. The fact teachers display argumentative approach for school practices is regarded to be highly positive for school administrators for whom different opinions the school environment are important. Therefore, it can be argued that high levels in this regard are positive because teachers who follow an argumentative approach can criticize the failures of school practices without hesitation and it will be favorable for the development of the school. Teachers sometimes want to avoid discussions because they do not want to share opinions about the issues that may disrupt the school environment, they do not have information about the situations in question or consider themselves inadequate, they fear the administrators and they do not want to talk to everyone about what they think and feel.

Teacher perceptions regarding organizational dissent in general and their perceptions on its sub scales such as vertical dissent, horizontal dissent and displaced dissent were high. While dissent behaviors may harm the school environments in which there are autocratic school administrators, teachers' positive dissent behaviors at schools where there is a democratic and supportive management style will contribute to the school environment and climate. As a matter of fact, decisions taken in organizations can be of higher quality thanks to opposition (Dooley and Fryxell, 1999; Landier, Sraer and Thesmar, 2009). In this respect, high level perceptions regarding vertical dissent may be considered as positive. In addition, opposition to managers is not a condition to be worried about since it can be considered as an indicator of employee commitment and responsibility (Oral Ataç and Köse, 2017). In this sense, teachers' high vertical opposition perceptions can be perceived as a positive result because teachers who exhibit opposing behaviors towards problems in making decisions and implementing practices because they are aware of the procedures at the school and the educational activities and feel responsibility. Hence, this situation can be regarded as normal because it is very important for employees to express their ideas, thoughts and suggestions about organizational and managerial activities in terms of organizational functioning (Sadykova and Tutar, 2014). In addition, high teacher perceptions in regards to organizational dissent and its sub-dimensions will provide opportunities to eliminate setbacks during the implementations of school policies, to nourish the emergence of new ideas and to enable making common decisions. Dağlı and Ağalday (2018) support the findings of this research. However, some studies (Özdemir, 2010; Yıldız, 2014; Dağlı and Ağalday, 2014; Akada, 2015; Korucuoglu, 2016) identified low or moderate employee perceptions in regards to organizational dissent. Findings that point to variations in different studies may be due to differences in school administrators' management styles, school culture and climate.

In order to succeed in their professions, it is important for school administrators to be aware of the positive developments in their organizations as well as the negative ones. One of the factors that affect success is correcting and amending areas that include problems. Opposition is an important tool for managers to be aware of problems. Administrators can learn a lot from different perspectives and opinions at schools and decide whether what is implemented is correct or not (Ergün and Çelik, 2018). In addition, it is thought that school administrators' openness to opposing paradigms is important for the change, development and innovation of schools. Also, this behavior can contribute to the formation of a democratic society and democratic schools, as



well as helping those teachers who avoid arguments or confrontation to overcome their fears and anxiety and support them to share their criticisms and opinions. However, it should be taken into consideration that there are administrators who do not regard opposition as positive but as an attack on their professional positions (Berber, 2013; Devine and Maassarani, 2011). Administrators with this perspective will not only fail to manage opposing viewpoints, but will also create an unfavorable environment.

It was found that sub scales of argumentativeness had a statistically significant effect on horizontal dissent, a sub scale of organizational dissent. Avoidance and approach forms of argumentativeness were significant predictors of horizontal dissent. As a matter of fact, since horizontal dissent behavior occurs mainly when the employees think that they are perceived as enemies or rivals within the organization (Kassing, 1998), employees may have pursue avoidance for fear that they will lose benefits and interests. Such thoughts may lead them to share their ideas with their fellow teachers because teachers who have a tendency to discuss options and are willing to argue may not want to share some situations with their administrators with concerns about the reactions that they will get. Therefore, they will prefer to express their dissent by talking to other teachers about the situations in question. As a matter of fact, teachers with high argumentative approach styles who enjoy discussions and arguments may display negative behaviors when they cannot express themselves.

While argumentative approach, a sub scale of argumentativeness, was found to significantly predict vertical dissent, a sub scale of organizational dissent, argumentative avoidance was not found to be related to vertical dissent. Since teachers who are energetic and enthusiastic in regards to talking about a controversial subject, who enjoy discussing and defending their views will be highly motivated to persuade others and hence they can question school administrators and school policies by making these situations positive and encouraging. They can make suggestions for correcting the setbacks and solving the problems at their schools. When there an unfair situation unfolds at the school, they can report it to their administrators, express their disagreements and contribute to innovation and change by stating their own ideas. Therefore, dissent can become an important instrument that can provide self-regulation, democracy, justice and organizational innovation at schools (Özdemir, 2013). However, when teachers follow argumentative avoidance style, there will be no contradictions or conflicts at the school, preventing the school to be open to development and change and hindering the formation of a democratic school environment. At the same time, employees argumentative approach style may have to pay heavy prices in this process as a result of their dissident behaviors (Uys, 2008). The reason why teachers stay away from dissent by exhibiting avoidant styles may be related to their shying from paying the price. However, if school administrators can guide teachers with argumentative approach style to vertical dissent behaviors, they can provide an opportunity to compete with other schools by providing more rapid change and innovation and will also show that those who are exhibiting avoidance behaviors will not experience adverse results.

While argumentative avoidance, a sub scale of argumentativeness, was found to significantly predict displaced dissent, a sub scale of organizational dissent, argumentative approach style did not affect displaced dissent. It may be considered normal for teachers who display avoidance to exhibit displaced dissent behaviors since they do not wish to take part in a controversial situations and therefore direct the subject to emotional issues. As a matter of fact, teachers who do not want to engage in discussions at the school will want to talk about their problems with their friends and family outside the school rather than their colleagues because the teachers with this argumentative style will be worried that the people around them may get a negative impression and they may not want to be together with teachers who do not agree with their ideas. Therefore, it may be natural for teachers who are in this situation to explain their dissent behaviors to their friends and family rather than their colleagues by avoiding vertical or horizontal dissent behaviors at the school.

While the argumentative approach had a statistically significant effect on organizational dissent, argumentative



avoidance did not predict organizational dissent. Teachers with argumentative avoidance style may think that the discussion will affect them negatively and this type of thinking may stop them from exhibiting dissent behaviors. On the other hand, teachers with argumentative approach have high motivation for discussion, feel energetic and enjoy discussions and therefore it will be easier for them to exhibit organizational dissent behaviors. It is expected that constructive opposition has a positive contribution in making the right decisions and in solving problems in organizations with common sense (Morrison, 2011). Teachers should have argumentative approach style in order to ensure the existence of constructive opposition at schools. In addition to providing the development and satisfaction of teachers, the opposition provides them with different paradigms and approaches (Sadykova and Tutar, 2014). For this reason, positive and constructive dissent behaviors of teachers with argumentative approach style are regarded to be positive in terms of the effectiveness of the school. Administrators can contribute to the development of their schools by caring about the positive and constructive dissent behaviors and turning these behaviors into opportunities.

The following suggestions were developed in line with study results:

- School administrators should create a school culture and climate in which teachers can demonstrate argumentative approach behaviors that may benefit the school.
- With the help of their administration styles, school administrators should create an environment in which teachers can share vertical dissent views and display argumentative approach behaviors and vertical and horizontal dissent behaviors in order to achieve success in school policies, education and training activities, in making joint decisions, in uncovering different ideas and identifying and eliminating problems at their schools.

References

- Akada, T. (2015). *Örgütsel muhalefete ilişkin öğretmen görüşleri*. Yüksek lisans tezi, Dokuz Eylül Üniversitesi Eğitim Bilimleri Enstitüsü, İzmir.
- Berber, A. (2013). *Klasik yönetim düşüncesi: Geleneksel ve klasik paradigmlarla klasik ve neo-klasik örgüt teorileri*. İstanbul: Alfa Yayınları.
- Dağlı, A. (2015). Örgütsel muhalefet ölçeğinin Türkçe'ye uyarlanması: geçerlik ve güvenirlik çalışması. *Elektronik Sosyal Bilimler Dergisi*, 3, 198-218.
- Dağlı, A. ve Ağalday, B. (2014). Öğretmenlerin örgütsel muhalif davranış biçimlerine ilişkin görüşleri. *Elektronik Sosyal Bilimler Dergisi*, 2, 112-128.
- Dağlı, A. ve Ağalday, A. (2018). Öğretmenlerin örgütsel muhalefetin nedenlerine ilişkin görüşleri. *İlköğretim Online*, 14(3), 885-898.
- Devine, T. & Maassarani, T. F. (2011). *The corporate whistleblower's survival guide a handbook for committing the truth*. San Francisco: Berrett-Koehler Publishers.
- Dooley, R. S. & Fryxell, G. E. (1999). Attaining Decision Quality and Commitment from Dissent: The Moderating Effects of Loyalty and Competence in Strategic Decision-Making Teams. *The Academy of Management Journal*, 42(4), 389-402.
- Ergün, H. ve Çelik, K. (2018). Örgütsel muhalelet ölçeği Türkçe uyarlaması. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, 48, 398-414.
- Graham, J. W. (1986). Principled Organizational Dissent: A Theoretical Essay. B. M. Staw & L. L. Cummings (Ed.), *Research in Organizational Behavior*, 8, 1-52.
- Hamilton, M. A. & Mineo, P. J. (2002). Argumentativeness and its effect on verbal aggressiveness: a meta-analytic review. İçinde M. Allen, R. W. Preiss, B. M. Gayle & N. Burrell (Eds.), *Interpersonal Communication Research: Advances through Meta-Analysis* (pp. 281-314). Mahwah, NJ: Lawrence Erlbaum.
- Infante, D. A. & Rancer, A. S. (1982). A conceptualization and measure of argumentativeness. *Journal of Personality Assessment*, 46, 72-80.
- Infante, D. A., Rancer, A. S. & Womack, D. F. (2003). *Building Communication Theory* (4th Edition). Prospect



- Heights, IL: Waveland Press.
- Karasar, N. (2005). *Bilimsel araştırma yöntemi*. Ankara: Nobel Yayın Dağıtım.
- Kassing, J. W. (1998). Development and validation of the organizational dissent scale. *Management Communication Quarterly*, 12(2), 183-229.
- Kassing, J. W. (2002). Speaking up: Identifying employees upward dissent strategies. *Management Communication Quarterly*, 16(2), 187-209.
- Kassing, J. W. (2011). Stressing out about dissent: examining the relationship between coping strategies and dissent expression. *Communication Research Reports*, 28(3), 225-234.
- Kassing, J. W. & Armstrong, T. A. (2002). Someone's Going to hear about this: examining the association between dissent-triggering events and employees. *Dissent Expression. Management Communication Quarterly*, 16(1), 39-65.
- Kavak, O. ve Kaygın, E. (2018). Örgütsel adalet algısının örgütsel muhalefet davranışı üzerindeki etkisi. *Balkan and Near Eastern Journal of Social Sciences*, 4(1), 33-51.
- Korucuoğlu, T. (2016). *Örgütsel güç oyunları ve örgütsel muhalefet arasındaki ilişki*. Yüksek lisans tezi, Eskişehir Osmangazi Üniversitesi Eğitim Bilimleri Enstitüsü, Eskişehir.
- Landier, A., Sraer, D. & Thesmar, D. (2009). Optimal dissent in organizations. *Review of Economic Studies*, 76(2), 761-794.
- Morrison, E. W. (2011). Employee voice behavior: integration and directions for future research. *The Academy of Management Annals*, 5(1), 373-412.
- Oral Ataç, L. ve Köse S. (2017). Örgütsel demokrasi ve örgütsel muhalefet ilişkisi: beyaz yakalılar üzerine bir araştırma. *Istanbul University Journal of the School of Business*, 46(1), 117-132.
- Ötken, A. B. ve Cenkçi, T. (2013). Beş faktör kişilik modeli ve örgütsel muhalefet arasındaki ilişki üzerine bir araştırma. *Öneri*, 10(39), 41-51.
- Özdemir, M. (2010). *Ankara ili kamu genel liselerinde görev yapan yönetici ve öğretmenlerin örgütsel muhalefete ilişkin görüşleri*. Doktora tezi, Ankara Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.
- Özdemir, M. (2013). Genel liselerde görev yapan öğretmenlerin örgütsel muhalefete ilişkin görüşleri (Ankara ili örneği). *Eğitim ve Bilim*, 38(168), 113-128.
- Rancer, A. S. (1998). Argumentativeness. In J.C. McCroskey, J. A. Daly, M.M. Martin ve M. J. Beatty (Eds.), *Communication and Personality: Trait Perspectives* (pp. 149-170). Cresskill, NJ: Hampton Press.
- Rancer, A. S. (2004). Argumentativeness, verbal aggressiveness and persuasion. In J. S. Seiter & R. H. Gass (Eds.), *Perspectives on Persuasion, Social Influence and Compliance-Gaining* (pp. 113-131). Boston: Allyn ve Bacon.
- Rancer, A. S. & Avtgis, T. A. (2006). *Argumentative and Aggressive Communication: Theory, Research and Application*. Sage Publications, Inc., Thousand Oaks: California.
- Rancer, A. S., Baukus, R. A. & Infante, D. A. (1985). Relations between argumentativeness and belief structures about arguing. *Communication Education*, 34, 37-47.
- Rancer, A. S., Kosberg, R. L. & Baukus, R. A. (1992). Beliefs about arguing as predictors of trait argumentativeness: implications for training in argument and conflict management. *Communication Education*, 41, 375-387.
- Sadykova, G. ve Tutar, H. (2014). Örgütsel demokrasi ve örgütsel muhalefet arasındaki ilişki üzerine bir inceleme. *İşletme Bilimi Dergisi* 2(1), 1-16.
- Stewart, R. & Roach, K. (1998). Argumentativeness and the theory of reasoned action. *Communication Quarterly*, 46, 177-193.
- Turunç, Ö., Eser, H. B. ve Dinç, M. (2018). Tartışmacı tutum ölçeği kısa formunun Türkçe geçerlilik ve güvenilirlik analizi. *OPUS-Uluslararası Toplum Araştırmaları Dergisi*, 9(16), 731-759.
- Uys, T. (2008). Rational loyalty and whistle blowing: The south African context. *Current Sociology*, 6, 904-921.
- Yıldız, K. (2014). Örgütsel Muhalefet. *Akademik Bakış Dergisi*, 43, 173-193.



Development of a Smart Environment as Support for Smart Education in the Future

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Abstract

Mobile technology in education is becoming an increasingly interesting option for the future. Smart and personal access to interactive multimedia content (IMC) requires a developed infrastructure for present and future Smart Cities. The arrival of 5G technology will significantly improve the existing smart learning models and enable significant involvement of IoT technology. Connecting IoT within 5G mobile networks will enhance Smart Learning Environments (SLE) for each user. SLE is physical and virtual environment that provides faster access to IMC, enriching the environment with contextual and adaptive digital devices that provide situations, events, interventions and perceptions needed to encourage users to learn, know, and resolve situations (identification), actively and virtually interact with the group, exercise and think. All these elements will not be able to provide adequate quality through existing models without an active student model supported by IoT technology. This paper discusses the possibilities and future implications of the new 5G technology, ubiquitous computing and IoT as components of Smart learning environments.

Keywords: mobile technology, personal smart learning environments, 5G, student models, contextual model

Introduction

The possibilities mobile technology currently offers have significantly improved the way people use computer technology in their everyday life. The reason for this is that mobile devices have, due to their availability, finally become "personal devices", and they now provide their users with a way to continuously interact and communicate with their device and its online and offline features. The development of mobile networks bandwidth has also allowed users to access various types of network content, communication and entertainment in a multimedia-based and interactive way. Today, we are witnessing the introduction of 5G mobile technology, something that will enhance this experience even further.

Apart from providing increased speed, it is expected that 5G will support the development of Internet of Things' (IoT) ecosystem, where networks could be used to satisfy the communication needs of billions of interconnected devices. These services will support a compromise between speed, bandwidth, latency and expenses (Mavromoustakis, Mastorakis, & Batalla, 2016). Unlike current standards, 5G introduces several important features such as low latency, allowing users to interact in real time, which is important for cloud services; low energy consumption, ensuring the longevity of quality services; and significant increase in mobile networks' speed and bandwidth. These features are the basis for future use of IoT devices and technology.

Eloff wrote about the Internet of future as far back as ten years ago: "The Future Internet will be based on mobile technology and consist of billions of digital devices, people, services and other physical objects having the



potential to seamlessly connect, interact and exchange information about themselves and their environment " (Eloff, Eloff, Dlamini, & Zieliński, 2009). Ten years later, this vision is becoming a reality. This is preceded by a continuous development of technology, but also by the development of a society able to accept technological changes. While this vision was quite advanced in its day and age, it is now a logical continuation of human society's and technology's evolution. In this and future synergistic development of society and technology, also known in scientific literature as IoPTS (Internet of People, Things and Services), i.e. Internet of People (IoP), Internet of Things (IoT) and Internet of Services (IoS), Internet of People shows how Internet of Things and Services will be used in the future (Al-Fuqaha, Guizani, Mohammadi, Aledhari, & Ayyash, 2015; Ejaz & Anpalagan, 2019).

Internet of Things and the smart learning environment

Advances in the field of mobile technology have directly impacted the development of IoT (Internet of Things) technology, which has become an important part of future Smart City environments. There are several points of view concerning IoT's definition, but one of the most precise and most complete ones is given by Gartner Inc¹, a research and advisory company, which states: "The Internet of Things (IoT) is the network of physical objects that contain embedded technology to communicate and sense or interact with their internal states or the external environment". In fact, we can consider various physical devices (objects) which possess the technology that allows them to collect data from their surroundings, have the ability to process data and based on that "communicate" or act in their environment. The number of those devices is continuously rising, and their number, type, place and purpose will surpass all our expectations in the future (Kale, 2018; Sun, Wang, & Ahmad, 2017). Apart from these basic functions the devices possess, we can expect to see new, interesting and more demanding features which will greatly rely on artificial intelligence (Sun et al., 2017). The development of this information and communication ecosystem has only just begun, and judging from the feats achieved so far, we can expect to see an advanced IoT information and communication ecosystem.

This unique environment composed of ubiquitous IoT devices creates an ICT environment that can significantly impact and advance learning and teaching processes. In such an environment we cannot be satisfied with mere access to information and simple learning and teaching support. Rather, we should aim for active participation in the learning process through guiding every student, by means of active instructions, by using proactive learning suggestions whose aim is to support and entice students in the right moment. It is therefore necessary to think about creating a "smart environment" that will entice learning and teaching processes. Even Ilkyu Ha and Chonggun Kim considered a smart learning environment to be a combination of technology and pedagogy whose goal is to create an ecosystem designed to provide evidence about changes in knowledge in real time and the sustainability and acquisition of skills which are imperceptibly transferred onto students when they move from one learning context into another (Bădică & Nguyen, 2013). Many authors, such as Chin (1997), state that a smart learning environment is focused on the student and based on applied information and communication technology. Chin states that this technology must have the following features: it should be able to adapt to different learning styles and abilities, provide support to students' development and support lifelong learning. This specific environment must contain modern pedagogical aspects and knowledge (Chin & Chen, 2013). The pedagogical aspects are aimed at the most recent research in the field of applied ICT technology in learning and teaching processes (Daniela, 2019; Lorenzo & Gallon, 2019).

Creating a smart learning environment for every student therefore becomes an intriguing idea we must aspire to. Authors such as Koper believe that smart learning environments are primarily physical environments enhanced with digital devices and adaptable contexts, with the goal of promoting better and faster learning (Koper, 2014). Klimova (2015) defined the concept of SLE as a smart learning environment supported by technology that can

¹ <https://www.gartner.com/it-glossary/internet-of-things/>



make adaptations and provide adequate support (L. Uskov, Howlett, & Jain, 2015). According to Zhu, it is emphasized that intelligent learning is based on two different types of technology, (1) intelligent devices and (2) intelligent technology (Z.-T. Zhu, Yu, & Riezebos, 2016). Zhu et al. set basic features of a smart learning environment through location awareness, context awareness, interoperability, seamless connection, adaptability, and ubiquitousness (Z. T. Zhu & Bin, 2012).

It is necessary to emphasize here that this paper stresses that smart learning environments have to become personal smart learning environments. Personal smart learning environments thus become interesting environments focused on an individual. The concepts of a smart classroom and a smart learning environment aim to make students' environments more efficient, adaptable and interesting. We can also view the smart learning classroom concept as a potential integration of individual smart environments. The model proposed here only partially considers this possibility, but it does provide further steps for developing a future model.

In accordance with these basic ideas, Zhu et al. created and described key elements that determine smart education as a product of a smart learning environment: location awareness (in smart learning, the location in real time is important data the systems need in order to adapt the content and situation to the student); context awareness (exploring different activity scenarios and information); social awareness (sensing social relationships); interoperability (setting standards for different resources, services and platforms); seamless connection (providing continuous service when any device connects); adaptability (pushing learning resources according to access, preference and demand); ubiquitousness (predicting student's demands until clearly expressed, providing visual and transparent access to learning resources and services); record completeness (recording learning path data to mine and analyse in depth, then providing reasonable assessment, suggestions and pushing on-demand service); natural interaction (transferring the senses of multimodal interaction, including position and facial expression recognition); high engagement (immersion in multidirectional interactive learning experiences in technology-enriched environments) (Z.-T. Zhu et al., 2016).

Zhu et al. also propose an interesting model of a smart environment set in an interesting surrounding. If we analyse the elements of the model, we can see that it is not completely focused on an individual but on the smart learning environment. The proposed elements are predictors which can point to future development of technology, adaptability and future focus on an individual and social environment. However, the question that has to be raised is whether the proposed model can be adapted to each and every student. Can every student, with all their specificities, fully utilize the elements?

Hwang created a smart learning environment model composed of the following modules:

- A learning status detecting module (which detects learners' real-world status, such as locations and learning behaviours, and environmental contexts such as temperature and humidity).
- A learning performance evaluation module (records and evaluates learner's performance).
- An adaptive learning task module (assigns learning tasks to learners based on their learning progress, learning performance, personal factors and their learning objectives).
- An adaptive learning content module (based on the learning progress, learning performance and other factors, the learning system recommends and organizes learning materials).
- A personal learning support module (learning support to learners based on their learning needs).
- A set of databases for keeping the learner profiles, learning portfolios, learning sheets (the learning portfolio databases contain students' learning schedules, learning progress, homework, assessment results and their interactions with peers and the learning system etc.).
- An inference engine and a knowledge base for determining the "value" of the candidate's learning tasks, strategies and tools as well as their possible combinations. The knowledge base is a collection of the tutoring knowledge and the experience of educators and learners. It can also contain decision-making rules generated



by analysing previous cases, including successful and unsuccessful ones.(Hwang, 2014)

Hwang's model is fully focused on the student and provides continuous support to the learning process. However, the model bases its support on strictly defined support systems and subsystems. The environmental context doesn't have an active role here, i.e. it does not support the interaction of the environment, only the strict subsystems inserted in the information-communication support system. The new ICT ecosystem developed within the confines of the new 5G broadband internet, such as IoT, ubiquitous computing, cloud computing etc., will provide new ways of accessing information from the environment, ways that are connected by different systems. It is a whole new ecosystem.

The personal smart learning environment model

IoT smart environments represent the basic element of creating a contextually aware environment. IoT information system promotes creation and usage of context-aware apps which can adapt to environment context, with or without user's intent. Context is therefore important because it has the primary role in executing apps within the IoT information system and in collecting important parameters during the interaction between users and their environment and forwarding that information to other elements which are of importance to the user (Das & Almhana, 2018). According to Dey, a system is aware of the context if it uses the context to provide relevant information and services to the user, with the relevance depending on the user's task (Dey, 2001). Feng points to the goal of interaction or to the interaction itself, but in the context of the environment and the user (Feng, 2018). Contextually aware apps can adapt their functions, content and interfaces to their user's current situation with less distractions for the user. More specifically, requests like that can reveal context information such as locations, networks, persons in the vicinity, physical parameters or objects etc.

A specific IoT information system that uses a contextual environment has the potential to provide support to the learning process regardless of time and place. In order to see the possibilities of learning in an environment, authors initially dealt with different options ambient learning² provides. The aim of this was to allow students to learn without interruption, i.e. to learn on the move. Research conducted on the matter and the available results point to some key ambient learning predictors that affect the development of context learning environments such as ubiquitous computing, specific personal students' devices that provide access to information, curriculum content design, learning guidelines, content integration, information on the environment and the place of learning, success evaluation etc. (Feng, 2018).

Just like we analysed the importance of the IoT environment when it comes to developing a smart learning environment at the beginning, we also have to underline the importance of the student model. The student model represents a series of predictors that allow the system to adapt in order to achieve the desired learning outcome in the best possible and most efficient way for every student. This is why the aim of the student model is interaction between the IoT context environment, set learning outcomes, interaction of the student with the system (publicly available information, scientific community, knowledge bases, access to learning objects etc.) and students' interaction with other participants in the learning process (other students, teachers) (Dumančić, 2019; Dumančić, Bakić-Tomić, & Đolo Celizic, 2012)

In order to facilitate the development of the personal student model in such an environment, it is necessary to develop a personal contextual model, too. Building or modelling the personal contextual model with the

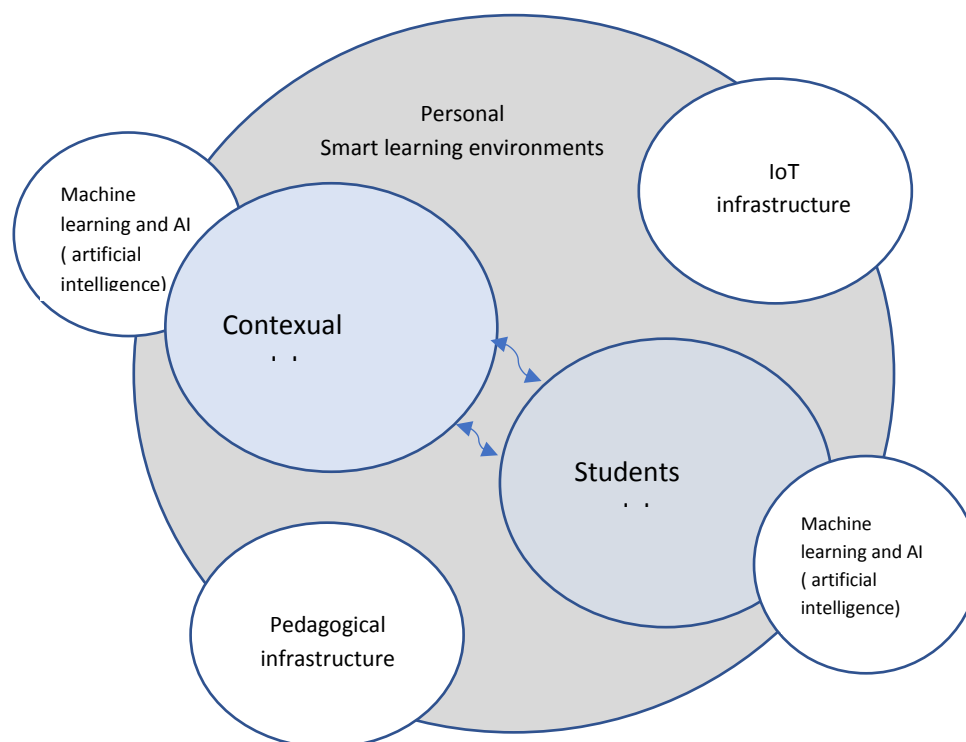
² Project - Ambient, multimodal and context-sensitive lifelong learning, 2006.
(http://www.ambientlearning.net/ambient/download/Files/AMBIENT_LEARNING_FINAL_REPORT.pdf)



application of IoT represents an important infrastructure for collecting different information, which then enables modelling of a personal context. Contextual modelling is necessary to understand a system and its components, and it also supports using and reusing information concerning the context between the apps of the system environment. The product of this interaction is the contextual model. Authors Temdee and Prasad also emphasize the importance of formal representation of the context so that it can be checked for consistency and reasonable judgement (Temdee & Prasad, 2018).

During the last few decades, many contextual models have been developed, from simple ones to complex models aiming for heterogeneity and context mobility. Contextual modelling also has to take into consideration the relationships and dependences of different types of contexts. Building a personal contextual model depends on the goal, i.e. the purpose of the model. The act of preparing information for modelling and the procedure of model creation and testing can be done by using machine learning³ algorithms and methods, as well as by actively using artificial intelligence.

In this paper, we are focused on a personal contextual model which will support smart learning environments. It is a specific contextual model which supports and upgrades the student model, but also depends on it at the same time.



Picture 1. *Personal Smart learning environment*

Every student, in fact, possesses a specific student model created on the basis of various physical, social, communicology-wise, pedagogical, educational and other features. Creating a student model allows every student to master learning objects, communicate with others etc. as efficiently as possible and in the best possible

³ The elements of machine learning include Representation, Evaluation and Optimization. More on that in papers by the other authors.



way. This model is not static – it is dynamic and is being continuously upgraded. The construction of such a model must greatly rely on using elements and procedures of artificial intelligence and machine learning due to the complexity of collecting and processing information about every individual student. The creation of a student model ceaselessly interacts with the personal contextual model, and the two complement each other.

Pedagogical infrastructure encompasses didactic and methodical approaches that promote active learning. Within the smart learning environment, a constructivist approach combined with social constructivism promotes students' active approach to the learning process and mastering the curriculum content, as well as to their societal role. A didactical approach to the constructivist approach interprets learning as an independent process of reality construction, which unfolds in interaction with the environment.

Learning is not mere accepting of knowledge, but a process of a student's integration into a knowledge-based society. It is therefore my belief that the smart learning environment arises as a need and as an option of the current and future knowledge-based society in which students will have an active role.

The proposed smart learning environment is a dynamic model in which all currently recognized elements form an adaptable and active system for every student. It is necessary to emphasize that the interaction between the personal contextual model and the student model and students themselves creates a smart learning environment.

Conclusions and Recommendations

Personal learning environments were created after an extensive study of scientific literature and after analysing the possibilities that new mobile and IoT technologies bring, possibilities that will directly impact the education process. Smart Cities greatly encourage the development of new technologies and everything that they will bring in the future. Education therefore becomes vital for that future; the planning and deliberation about it should encompass different technologies, methods and activities. Every individual matters and it is important to develop their need for lifelong education in the dynamic environment of the future. Despite technology and all the possibilities it brings, we need to examine learning and education as processes aimed at an individual and their needs, but also as something aimed at a community as a whole. Different technologies must fulfil the needs of every individual over the course of their life. This model needs to be re-examined, changed, proven time and time again and adapted to every single student or learner through various research. Within the confines of the model, key predictors of the relationship between the conceptual and the student model should also be examined with the support of new technologies.

In the near future, we will have to examine and define specific differences between smart learning environments and personal smart learning environments, together with the options current and future IoT technologies will provide. This is expressed as a scientific and personal research area of interest.

References

- Al-Fuqaha, A., Guizani, M., Mohammadi, M., Aledhari, M., & Ayyash, M. (2015). Internet of Things: A Survey on Enabling Technologies, Protocols, and Applications. *IEEE Communications Surveys & Tutorials*, 17(4), 2347–2376. <https://doi.org/10.1109/COMST.2015.2444095>
- Bădică, C., & Nguyen, N. T. (Eds.). (2013). *Computational collective intelligence: Technologies and applications*; 5th international conference, ICCCI 2013, Craiova, Romania, September 11 - 13, 2013; proceedings. Berlin: Springer.
- Chin, K.-Y., & Chen, Y.-L. (2013). A Mobile Learning Support System for Ubiquitous Learning Environments. *Procedia - Social and Behavioral Sciences*, 73, 14–21. <https://doi.org/10.1016/j.sbspro.2013.02.013>
- Daniela, L. (2019). *Didactics of Smart Pedagogy: Smart Pedagogy for Technology Enhanced Learning*. Retrieved from <http://sbiproxy.uqac.ca/login?url=https://doi.org/10.1007/978-3-030-01551-0>



- Das, B., & Almhana, J. (2018). Real-time Context-aware Learning System for IoT Applications. ArXiv:1810.11295 [Cs, Stat]. Retrieved from <http://arxiv.org/abs/1810.11295>
- Dey, A. K. (2001). Understanding and Using Context. *Personal and Ubiquitous Computing*, 5(1), 4–7. <https://doi.org/10.1007/s007790170019>
- Dumančić, M. (2019). Smart education in Smart City and Student model. <https://doi.org/DOI: 10.12753/2066-026x-19-077>
- Dumančić, M., Bakić-Tomić, L., & Đolo Celizic, K. (2012). Communication model of a life-long student ID card. *International Conference on Communication, Media, Technology and Design*, 1. Retrieved from <http://www.cmdconf.net>
- Ejaz, W., & Anpalagan, A. (2019). Internet of things for smart cities: Technologies, big data and security. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=1913193>
- Eloff, J. H. P., Eloff, M. M., Dlamini, M. T., & Zieliński, M. (2009). Internet of People, Things and Services—The Convergence of Security, Trust and Privacy.
- Feng, L. (2018). *Context-aware computing*. Berlin ; Boston: De Gruyter.
- Hwang, G. J. (2014). Definition, framework and research issues of smart learning environments-a context-aware ubiquitous learning perspective. *Smart Learning Environments*, 1. <https://doi.org/10.1186/s40561-014-0004-5>
- Kale, V. (2018). *Creating smart enterprises: Leveraging cloud, big data, web, social media, mobile and IoT technologies*. Boca Raton: CRC Press.
- Koper, R. (2014). Conditions for effective smart learning environments. *Smart Learning Environments*, 1. <https://doi.org/10.1186/s40561-014-0005-4>
- L. Uskov, V., Howlett, R. J., & Jain, L. C. (2015). Smart Education and Smart e-Learning. Retrieved from <http://dx.doi.org/10.1007/978-3-319-19875-0>
- Lorenzo, N., & Gallon, R. (2019). Smart Pedagogy for Smart Learning. In L. Daniela (Ed.), *Didactics of Smart Pedagogy* (pp. 41–69). https://doi.org/10.1007/978-3-030-01551-0_3
- Mavromoustakis, C. X., Mastorakis, G., & Batalla, J. M. (Eds.). (2016). *Internet of Things (IoT) in 5G Mobile Technologies*. <https://doi.org/10.1007/978-3-319-30913-2>
- Sun, H., Wang, C., & Ahmad, B. I. (Eds.). (2017). *From internet of things to smart cities: Enabling technologies*. Boca Raton London New York: CRC Press, Taylor & Francis Group, a Chapman & Hall book.
- Temdee, P., & Prasad, R. (2018). Context-aware communication and computing: Applications for smart environment. Retrieved from <http://public.eblib.com/choice/publicfullrecord.aspx?p=4891396>
- Zhu, Z. T., & Bin, H. (2012). Smart education: A new paradigm in educational technology. *Telecommunication Education*, 12.
- Zhu, Z.-T., Yu, M.-H., & Riezebos, P. (2016). A research framework of smart education. *Smart Learning Environments*, 3(1), 4. <https://doi.org/10.1186/s40561-016-0026-2>



Theoretical and Practical Parties of Sustainable Labor Market Regulation

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Abstract

The article is devoted studying the features of state regulation of the labor market. The essence of the labor market has been identified and legal regulation of the labor market and trends of its development are taken into consideration. At the current stage of economic development, it is necessary to improve labor market regulation not only in the republic and regions, but also in economic sectors. To achieve a positive outcome, there is a need for an integrated approach to its improvement, based on a qualitatively new level of the regulatory system. Regulation of the labor market should be based on application of modern technologies and timely adjustments to monitor the market situation. The main concepts and categories that reflect the processes in the employment area of the population are reflected in article in one or another way. In particular, factors and mechanisms affecting level of employment have been studied.

Keywords: economy, labor, market, development, mechanism

Introduction

In modern conditions, the most effective methods of employment and labor market regulation are used. The state regulates investments in various sectors of the economy, controls the retraining of employees, monitoring of employment, implements various programs to reduce unemployment, pays unemployment benefits, organizes public affairs. All measures taken to reduce unemployment or to help the unemployed people require a significant amount of additional costs, therefore, all countries can solve this problem in a timely and comprehensive manner.

Method

The methodological basis of the article is the works of economist scientists in domestic and foreign countries, the laws, programs, regulations and other normative legal acts in this field. In the research process, economic-statistical, monographic, targeted-program systematic approach, analysis and synthesis, summarization, induction, deduction and other methods were used.

Findings

The state regulation mechanism of the labor market can be considered as a sub-system of the economic system regulation as a whole. It's like a "balance mechanism". In regulating labor relations, all activities of the state should be transparent and open. The labor market is regulated by the state (1, p.118):

- Programs aimed at creating works in the public sector;
- Programs enabling the preparation and retraining of the labor force;



- Programs promoting employment;
- Government programs for public unemployment insurance.

The state mechanism for regulating the labor market can be classified as follows. Administrative methods - are essential elements of economic activity. Economic methods affect labor market participants and stimulate them economically. Therefore, it is possible to provide effective employment by correcting the behaviors of the participants. The state directly affects the direction of the labor market. This is done through the following instruments: employment measures financed by the state, tax incentives for businesses that create jobs and etc.

There are also organizational measures used by the state to create socio-economic conditions for all participants in the labor market. The tools used are: labor market forecasting, development of regional development plans, organization of employment services, etc.

The legislation plays an important role in the state regulation of the labor market. State policy is traditionally based on legislation. Because legislation, norms, and rules are required for the efficient functioning of the market. The main place of labor law resources is the Constitution of the Republic of Azerbaijan dated November 12, 1995. This document, which has the highest legal power, is the basis of the legislation, so that, all laws and other acts of state bodies are adopted on its basis and in accordance with it. The Constitution defines the basic principles of the legal regulation of labor. In accordance with these principles, Article 35 (right to work), Article 36 (Right to Holiday), Article 37 (Right to Rest), Article 38 (Right to Social Security), Article 41 (Right to Health) and other articles of the Basic Law form the basic meaning and content of national labor legislation. After the Constitution, the Labor Code of the Republic of Azerbaijan takes a major place in the system of labor legislation. The Labor Code of the Republic of Azerbaijan consists of 13 sections, 48 chapters and 317 articles approved by the Law of the Republic of Azerbaijan dated February 1, 1999, and entered into force on July 1, 1999. The Labor Law of the Republic of Azerbaijan is a legislative law that combines the legal norms regulating labor relations on the territory of the Republic and makes it systematic. The first important works to regulate the labor market in Azerbaijan has been done by the National Leader Heydar Aliyev. Then President Ilham Aliyev continued his policy in this direction. The main purpose of the policy of the socio-economic development pursued by the Azerbaijani President Ilham Aliyev is the development of human capital, the expansion of employment opportunities and the expansion of entrepreneurship activities, the creation of an inclusive labor market and the provision of good jobs in Azerbaijan. Presidential Decree dated October 26, 2005, "Employment Strategy of Azerbaijan (2006-2015)" was successfully implemented. During the implementation of this strategy, the unemployment rate fell from 7.3% to 5% and rate fell poverty from 29.3% to 4.9%, the population's income increased 5.2 times, the minimum wage increased by 3.5 times, the average monthly nominal wage increased by 3.8 times. Complex measures have been taken to identify trends in the labor market, to increase employment and to create favorable conditions for general economic activity, to increase the competitiveness of the workforce and other key areas. Under the relevant decree of President, the Commission on the regulation and coordination of labor relations was established and this Commission approved the Action Plan to prevent non-formal employment in Azerbaijan. Insurance coverage was initiated with the introduction of the unemployment insurance system. It is expected that the new employment strategy will have an important role in the development of public policy and in the transition to intensive development. This document analyzes the current situation and trends in the labor market in detail and reflects the priorities for 2019-2030. Economic development is the promotion of micro, small and medium enterprises, regulatory framework and institutional development, labor market regulation, labor force development and improvement of labor standards (8). Economic development envisages activities on support micro, small and medium enterprises, regulatory framework and institutional development of labor market regulation, development of labor force skills and improvement of labor standards (8).



It is also important to know certain definitions when improving labor market regulation issues. The conjuncture is a temporary situation that explains some of the signs of the current state of the labor market. An important element of the market mechanism is competition. Competition in the labor market allows with a large number of independent employers and workers to compete freely for prestigious work and skilled workers and allows to enter and to leave the market freely. It is important to maintain and support the citizens working on qualified education and restructuring, including the unemployed, state employment assistance agencies dealing with their social problems, personal services of enterprises and organizations, commercial and non-profit workers' exchange in the labor market infrastructure management. There are also some scientific classifications in this field (2, p.8).

The development of the labor market is closely related to regional development. The labor market is an important element in the regional system and ensures the implementation of the targeted regional rehabilitation process. Within the regional system, it cooperates primarily with finance, credit, and material resources, investments, consumer goods, information and knowledge markets. This involves the development of regional employment programs covering the social protection of the population. Regional programs should be based on the concept of labor market regulation, job creation, and maintenance (as a whole, socio-economic and demographic development of the region, production and occupational potential, etc.).

One of the most important issues in the regulation of the labor market is the serious consideration of human capital. The human factor is a complex, multifaceted, and very important concept. None of the areas such as general development of the society, understanding the laws, revealing the nature of secrets, creating complex robotic systems, conquering space, and so on cannot be achieved without human efforts. In modern conditions, intensification of production, an increase of its efficiency, strengthening of saving mode, and acceleration of socio-economic development are considered as the most important problem. Because of the efficient development of the economy, improving the living standards of the people, and the fulfillment of the tasks facing the society, first of all, depends on these factors. These factors include the capacity of natural resources, organization of production, level of production facilities, development of scientific and technical progress and etc. The extent to which these factors are used determines the dynamics of the development of each society. But the human factor triggers all these factors and is universal for all of them. Without human effort, it is impossible to mobilize any of these factors, to regulate them, and to lead the overall development of society (5, p.14).

The increased interest of the economy to human capital is due to the willingness to evaluate the effectiveness of the productive forces of the organization's employees. Human capital reflects the knowledge, skills, and abilities of people who are able to create personal, social and national well-being. This is a key concept for the successful development of any country in the post-industrial era.

Human capital is the most valuable resource. Human capital, factories, equipment, and production resources are the basic principle of competition, economic growth, and efficiency. Human capital in organizations is a major source of substantial and sustainable competitiveness. The main acceleration of the evolution of mutual relations in the market economy is competition. The successful outcome is the presence of an enterprise that can continue to compete internally and internationally. The most important factor in the market economy is the ability to compete, and people determine the types of economic activity (3, p.7). Therefore, proper execution of human capital assessment models directly affects the activities of enterprises. The role and place of a person in the process of social rehabilitation has been of great interest. Researchers have repeatedly sought to identify the characteristics of human capital, evaluated and characterized them qualitatively and quantitatively (4, p.8).

Proper implementation of human capital in the labor market necessitates labor contracts. Proper regulation of labor relations and continuous improvement of the legal and normative base in this area plays a special role in



the development of socio-economic relations. Thus, the proper management of labor relations on a legal basis reduces the social burden of the state and leads to increased productivity in enterprises and organizations. Considering all this, it can be assumed that general development, as well as personal characteristics on the fields, should be considered during labor relations regulation. The regulation of labor relations is directly related to the labor contract. The Labor Contract (The Employment) Agreement) is a written agreement between the employer and the employee. Based on this contract, the employer provides the employees with relevant work related to their employment functions, creates labor conditions in the Labor Code, other normative legal acts, collective agreement, pays their wage, and the employee undertakes to fulfill the contract of employment. Thus, a labor contract is an important document that reflects all aspects of the current business relationship between the employer and the employee. This document reflects the fundamental rights and fundamental responsibilities of the employee, as well as the fundamental rights and obligations of the employer and the responsibilities of the employer. Each employer must sign a written employment contract with at least two copies. Improvement of the employment contract system has special importance in improving labor market regulation mechanisms. In modern conditions of the labor market, the optimal ratio issues of development and demand is of particular importance. Traditionally, factors related to wage level were determined in the study and implementation of labor supply formation processes. Further development of labor market theory provides for the research and disclosure of the content of the proposal (6, p.1). As a rule, the labor market supply implies the number of labor services that can be offered at a certain time on a certain salary market. (7, pp. 114). Trends and volatility trends can be adjusted depending on the qualitative and quantitative indicators of the proposal's topics. For example, the educational characteristics of the labor force may be the basis for adaptation of supply and demand in the labor market. Therefore, the most important methodological problem in labor market theory is to determine the factors affecting the supply potential in local, regional and national labor markets. Traditionally, classical economic theory determines that labor largely depends on the level of payment. [6, p. 114].

The analysis of the situation in our national space related to the labor market improvement mechanism is also important. Azerbaijan's labor market is constantly developing and at the same time facing structural changes. Small and medium-sized enterprises have started to play a very important role in the economy, the workplaces created in this segment are constantly increasing. The growth of small and medium-sized enterprises is also a serious problem in terms of compliance with labor protection and security measures. In this respect, ILO partners provide technical assistance to develop and implement effective strategies that meet new challenges in this area.

Results, Conclusions and Recommendations

Creating an effective system of state regulation of the labor market is one of the major social goals of reform. In the context of modern socio-economic development, the state policy in the labor market should, in order of priority, fulfill the following tasks:

1. The necessity for the ability to work for increasing labor productivity, improving the quality of products and services;
2. renewal of staff potential as a result of the employment of young people receiving modern vocational training;
3. Strengthening the role of professional labor correlation in increasing employee income and relevant changes in labor motivation (highly productive work - high wages);
4. considering the ability to work economically, prophylactic and proactive vocational educating, training and retraining of economically active citizens in order to provide competitiveness;
5. the inclusion of unemployed citizens in public and other temporary workplaces;
6. providing effective interactions to coordinate the ways in which employees, employers, and government agencies can solve employment problems\$



7. the development of an effective mechanism for the expansion of social partnerships in the creation and protection of workplaces, targeted support for creation and protection of workplaces for non-competitive citizens;
8. Implies that, strengthen the integration of the employment policy program at the regional level, which includes the general plan of socio-economic development, focusing on labor market issues at the regional level. The purpose of this policy is to have an exceptional significance for adapting the HR policy of enterprises and organizations (if labor efficiency is one of the key priorities of the public employment policy). The policy aimed at the shaping of a well-functioning labor market is related to the need to eliminate deformations in the labor market and to the inevitable struggle against unemployment which requires a great investment in the maintenance and development of human capital.
9. As a result of the development of new technologies, cities' labor market is open to competition due to limited workplaces and low demands. The rural population has a lot of chances to find workplaces in the city's industry and service sectors. But how should this be adapted to the need for urban labor? Does the city provide a guarantee for adequate workplaces? These questions should be answered systematically.

References

- Bogatryyova, V. V. Financial management of the reproduction of human capital in an innovative economy: theory, methodology, modeling / V. V. Bogatryyova. - Novopolotsk: PGU, 2013. - 400 seconds
- Bylkov V. G. Proposal In The Labor Market: Methodology, Nature Of Formation. // Baikal Research Journal. 2017. Vol. 8, No. 4, p. 1-12
- Chaynikova L.N. Competitiveness of the enterprise. Tambov: Publishing House Tamb. state tech. University, 2007. - 192 s,
- Gildingersh M.G. Unemployment in Russia: the nature, forms, social consequences in the transition to a market / Ed. A.I. Muravyev. SPb., 1995
- Guluzade Mahmud Memmed. Human factor and acceleration of socio-economic development of the Republic of Azerbaijan. Monograph. - Baku: "Economic University" Publishing House, 2015. - 299 page.
- Guluzade Mahmud Memmed. Human factor and acceleration of socio-economic development of the Republic of Azerbaijan. Monograph. - Baku: "Economic University" Publishing House, 2015. - 299 page.
- Kulman A. Economic mechanisms. M. 2015 Labor market / ed. V. S. Bulanova, N. A. Volgina. - 3rd ed., Pererab. and add. - M.: Exam, 2007. - 479 p.
- Muradova A. « Labor market problems in the Republic of Azerbaijan in modern conditions». Monograph «Elm» Publishing House, Baku, 2000
- New employment strategy will help to move to an intensive stage of development of the labor market in Azerbaijan - <https://www.trend.az/business/economy/2974045.html>
- Полищук Е.А. Организационно-экономический механизм регулирования рынка труда молодежи Российской Федерации / Е. А. Полищук // Фундаментальные исследования.– 2016. – № 4-2. – С. 424-430



Lifelong Education as a Challenge of Digital Era

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Abstract

Digital trends in social and economic development change the labour concepts and attitudes towards careers. Through the life course people more often change their job, residence, specialty. That circumstance implies the need for new skills or retraining within the space of lifetime. This study is based on the assessment of the continuity of Azerbaijani education in the digital economy. The work was performed within the framework of the methodology proposed by the World Bank and aimed at interpreting and combining particular outputs of statistical studies, since a comprehensive statistical survey of the digitization of education has not yet been carried out. The results, on the one hand, indicate great promise in terms of system enhancements and expansion of lifelong education opportunities for all categories of citizens through development of the Azerbaijani digital space and increase the number of training organizations. On the other hand, the development of this direction is weak and of an ad hoc nature: specific goals and objectives, supply and demand, formal and informal methods in each field of Azerbaijani education are not fully taken into account.

Key words: Digital Economy, Information Technologies, Continuing Education, Ongoing Build-up of Digital Literacy

Introduction

Throughout the entire existence of mankind, society in its development went through three stages: agrarian stage with a predominance of agriculture and manual labor, industrial stage with industry dominance and post-industrial or digital stage, which is characterized by the dominance of services in the economy and the emergence of information technologies.

The digital economy, namely the emergence of new opportunities certainly has a positive effect on a person's life.

In this study, one of the tasks under consideration is identifying a number of problems in the digital economy from the perspective of lifelong education in order to maintain a coherent system of rational management. Those objectives include an analysis of the minuses that emerged with the introduction of the "digits" in the life of mankind. Among them we call rising unemployment in the labor market, since the risk of disappearance of some professions and even industries increase: for example, many experts seriously believe that the banking system will disappear over the next ten years (Charungkaittikul, 2018). This will be possible due to the further spread of information technology and its products, such as: shops with electronic cash registers, bots serving customers,



self-driving cars and other things. It is also necessary to note the “digital divide” – the gap in digital education, in terms of access to digital services and products, and, as a result, the gap in the level of well-being of people. So lifelong education is crucial, but at the same time, is the weakest link in the developed national educational systems.

As hypotheses of research on the successful creation and improvement of the system of lifelong education in the digital economy, the authors state the following assumptions:

- In its content, form and functional derivatives, the external and internal continuity in the system “secondary school – higher school – work – pension” should contain digital conditions for the formation of students’ activities and model the internal logic of its development;
- The development of research activities of students should be an integrated and prolonged educational process, accompanied by the formation of the subjective position of the future specialist;
- The educational space “secondary school-higher school-work-pension” should be represented in a single integrative educational system, including organizational-functional, logical-informative and personal subsystems.
- the backbone of lifelong education should be a university complex, which provides the structural and substantive integration of scientific, educational and other institutions.

Research methods

The aim of the research is seeking new approaches to boosting the growth of the educational (general and professional) potential of an individual throughout life in the framework of using the system of state and public institutions and in accordance with the needs of the individual and society, as well as ways of using modern digital and educational technologies to meet the needs in the digital age.

The objective of the presented research is to assess the continuity of education in Azerbaijan in the conditions of a developing digital economy based on modern methods and results of theoretical and statistical researches.

The work is performed within the framework of the methodology proposed by the World Bank, which includes an assessment of five groups of indicators: the continuity of the use of information technology in the educational process; training of teachers for the use of information technology in education; informatization of education management; higher education information infrastructure; regulatory support of digitalization of education. The factual basis of the study is data from official statistics and universities (Fantom & Serajuddin, 2016).

The solution of a wide range of tasks in the process of forming high-quality lifelong education under universal digitalization should be based on the principle of connectedness. Thus, **analysis techniques** of this research allow combining the entire educational structure into a common, usable cascade digital circuit with the necessary degree of aggregation and detailing.

The role of universities in the transformation of education in the digital economy: from knowledge to skills

The digital economy is fundamentally changing the labor market: where a computer can replace a person, it will replace it. Self-employment is a way out for people who have lost their jobs, especially since digital technologies provide new opportunities for organizing and developing business. Thus, the concept of lifelong education received an impulse for development a little more than 30 years ago and the last decade has been actively developing. The task of expanding access to continuing education is driven by the need to create a competitive and knowledge-based economy environment. Lifelong learning, among other things, contributes to the personal self-fulfillment and labor adaptation of the adult population, improves the quality of the human capital.

Furthermore, in the near future, a regular change of profession will become the norm, although even being in the same professional field will require receptiveness to education more and more. The concept of continuing



education assumes that a person's life is not strictly divided into a period of study (before graduation) and work, and learning is an ongoing process throughout life.

Universities should seek ways for maintaining their competitiveness by best preparing students for the real world. Yesterday, in the industrial economy, the effective solution of this task was a list of the curriculum that universities taught their students. However, today, in the conditions of a digitized economy, such training, based on fundamental knowledge, is no longer enough. Therefore, the best universities can give their students today is to teach them continuously learn, to interest them in the lifelong process of education and self-education.

Today, students' willingness for life in the real world is determined by their readiness for a continuous process of education, throughout their careers; their preparedness for the continuous process of self-reequipping. Otherwise, without giving priority to education and self-education, a person becomes obsolete as quickly as high technology.

Therefore, in a rapidly changing digitized world, only those organizations that care about involving their staff in a continuous education process are competitive. Thus, these organizations maintain up to date their ability to "take a digital wave", to adapt to market changes flexibly and quickly.

In order lifelong education to become the life norm, the structure of online education must evolve and the attitude of society towards learning should change. In addition, if the first task is directly related to the development of online platforms, software, content digitization, the second task is the development of a person's inner motivation to learn. As Kovalchuck's research has shown, the main reason why adults do not go to learn new things is the lack of an internal need for it (Kovalchuck & Vorotnykova, 2017).

On the one hand, researches in Azerbaijan indicate a high level of provision of universities with personal computers and Internet access, and on the other hand, they demonstrate a lack of automation of administrative and educational processes of the university (Rzayev & Suleymanov, 2018). Despite the continuous development of technologies and the emergence of new educational web services, as well as a long-term government policy on the formation of the information educational space, its potential is partially used by universities. Only a third of university students are trained using e-learning or distance learning technologies (Shirzadova, 2016). At the same time, non-state educational institutions provide most of the online educational services available to students (Shirzadova, 2016). In general, the share of online education in the market of educational services in Azerbaijan is small and amounts to 1.8% for higher education programs and 6.7% for additional professional education. 82% of students enrolled in programs with the exclusive use of e-learning are students of private universities (Shirzadova, 2016). The use of technology even in the blended learning format in addition to the IT infrastructure requires appropriate training of teachers and students.

However, a further impediment for participation in lifelong education is a lack of time (workload or family responsibilities). According to the authors, the realization of an individual approach to the organization of training and creation of a more flexible schedule for the possibility of combining work and study can stimulate the adult population to become more actively involved in learning and education.

But, basic or fundamental skills are highlighted in almost all studies, which, as a rule, are laid in the early stages of educational processes. The development of basic skills serves as the foundation for the development of the required skills for lifelong learning. Generally, knowledge have always been the end product of education, but in the digital economy the demand for skills has acquired a systematic, massive and at the same time specific nature.

Skills have a direct connection with the work position and workplace. Otherwise they do not make sense. In view of the high dynamics of the processes of the digital economy, today the skills are characterized by the dynamics of their lifetime, tied to the life cycle of the workplace, and this distinguishes them from the "petrified"



competencies. Therefore, the formation of specific skills should be carried out, firstly, as soon as possible while they are still relevant, and, secondly, given the fact that they can adapt to new conditions and develop.

Further, another factor that we call polydisciplinary of experience is that the content of skills can cover several different convergent subject areas, which naturally makes it difficult to learn these skills. For the development of such skills, the university environment seems to be very suitable, which is very fruitful for interdisciplinary research and development.

The next factor is the rapid development of the workplace ecosystem, the increase in the volume of scientific and technical information associated with the labor functions, the emergence of fundamentally new ways of working (Evans & Haffenden, 1988). All this requires constant updating of complementary skills.

It is also necessary to mention the factors of mobility and competitiveness of skills, which, as a rule, will be combined in a virtual space to solve common problems, bypassing administrative and international boundaries. Finally, authors note the factor of the increasing role of international standards, the comprehensive system of which is being formed by the world community (Kupriyanovskiy et al, 2017).

In the framework of basic skills, the entire spectrum of digital experience that make up digital literacy is shaped. Digital literacy is the ability to create and use content lading with digital technologies, including computer programming skills, searching and sharing information, and communicating with other people. There are different criteria for the development of digital literacy. For example, Henry Jenkins believes that digital literacy includes the ability to work with a hardware (human interaction with a digital technology), an understanding the features of the device and the ways of dissemination of digital information (that is, the ability to work with software), an awareness of network community and social media features (Jenkins, 2006).

Doug Belshaw singles out eight elements of digital literacy, including an understanding of the cultural context of the Internet environment, the ability of communicating in online communities, the ability of creating and distributing content, skills for using digital technologies for self-development (Belshaw, 2012).

Authors of various digital literacy concepts agree on one thing: only understanding how digital reality works can teach a person to control “information noise” and make interaction with digital technologies into a source of development, but not stress.

Lifelong professional education in the context of the digital economy of Azerbaijan

The observed growth in demand for digital literacy once again emphasizes the profound transformation of society from the industrial structure of society to a society based on knowledge, and in the result the knowledge becomes the main asset and must be continuously regenerated through training and production. Employees in the digital economy should be able to create and process complex information; think systematically and critically; make decisions on a multi-criteria basis; understand the essence of the ongoing processes of a multidisciplinary nature; be adaptive and flexible to new information; be creative; be able to identify and solve real problems of the digital world. But the digitalization of the education system cannot be limited by creating a digital copy of familiar textbooks, digitizing documents and providing all schools with access to high-speed Internet.

“The National Strategy for the Development of the Information Society in Azerbaijan for 2014-2020” (<http://www.mincom.gov.az/upload/files/7127fa87906a4d9af22415aaac9b16ae.PDF>) along with the existing concepts of “information society”, “knowledge society” introduces the concepts of “digital economy”, “ecosystem of digital economy”. Inevitably, new terms appear in education, for example, digital education and lifelong education. A disseminated interpretation of lifelong education is the process of learning the necessary competitive competencies, preparing human capital for the digital economy. Analogy with generally accepted



categories such as “technical education”, “economic education”, “medical education”, etc. is hampered, as there is no clear selection of the subject area for lifelong learning.

Later authors consider the basic direction that affects personnel and lifelong education in the context of development of digital economy of Azerbaijan. The field of education has always been and remains a key element in the global competition of states for economic power and political influence. The “State Strategy for the Development of Education in the Republic of Azerbaijan” (<https://edu.gov.az/ru/page/69>) defined goals and objectives, the solution of which is a necessary condition for Azerbaijan to remain a full-fledged, independent and respected member of the world community.

Along with the above, there is a need to implement new steps to ensure that the education system in the rapidly modernizing Azerbaijan Republic meets the challenges of human capital development, bringing the quality indicators of general education in line with European standards. To improve the quality of education, the restructuring of the education management system and the development of human resources in this area are necessary.

In the conditions of the digital economy formation, the authors propose the following directions for the improvement of personnel in education:

1. The scheme of certification of personnel competencies in terms of continuity of education should be variable and consistent with professional educational standards, the national qualifications system.
2. The system of basic educational programs should ensure digital literacy of the population, training for the digital economy and use its tools and environments.
3. A lifelong education strategy, retraining, advanced training and involvement in the digital economy of public servants over 50 years of age should be implemented.

Suggestions

To achieve these goals, it is necessary to create a system of descriptions of continuous competencies of the digital economy, integrated into the national system of qualifications, interrelated with professional and educational standards. This includes the mandatory creation of a regulatory framework or the “Digital Labor Code” and infrastructure for continuous, flexible, distance employment.

Next comes the problem of personal digital recording of the continuous development of citizens, including the recording of labor and educational processes. To this end, it is necessary to develop and introduce alternative certification systems of “adult education” that are adequate to the tasks of the digital economy. The introduction of the system of lifelong education includes the improvement of additional education.

The goal of lifelong education is not only to teach a person all his life, but also a motivation of teaching himself. Many scientists believe that the formation of stimulating environment should begin as early as elementary school, taking into account the physiological and mental characteristics of a child’s age (Boonloy, 2018). Future changes cannot but influence the educational sector at the initial level, therefore one of the directions should be personnel and program changes in general educational organizations for children.

Discussion

Continuing education is a holistic process consisting of sequential stages of specially organized educational activities that create favorable living conditions. Nevertheless, at present, lifelong education in Azerbaijan is still not treated as a unified system of state and public educational institutions, which ensure organizational, meaningful cohesion and consistency of all levels of education.



Life has its own requirements - developing the ability of a person to quickly respond to all changes, take initiative, expanding communication skills, etc. According to statistics from Azerbaijan, only 97% of university students are under the age of 25 (Silova, Johnson, & Heyneman, 2007). The rest of the population is adults, burdened with family and business concerns, who have either completed their formal training or those who were unable to complete their education. The system of continuous education in Azerbaijan does not meet the requirements of modern life, especially if we consider not only transport costs, but also the costs of organizing the entire system of full-time study. We have been able to observe the growing interest in full-time education with elements of distance education technologies, or, in general, the learning in full distance format. The use of technology even in the blended learning format in addition to the IT infrastructure requires appropriate training of teachers and students. The training of teachers for the use of IT in education, including teaching directly to work with IT themselves, should be complemented by training in methodical work in the information educational space (Shabanov & Quliyev, 2016).

Despite the positive changes in providing the country's educational institutions with computer equipment, in general, the level of information infrastructure of the education system is far from being perfect. Over the past 3 years in general education schools, 12232 teachers have completed special preparatory courses on ICT, which are only 7% of the teaching staff. Over the past 5 years, out of 12,367 people of the teaching staff of higher educational institutions, 391 people (3.2%) completed special training courses in ICT, the indicator for the specialized secondary schools was 90 (1.3%).

Conclusion

Summing up the research, we can say that in terms of automation of various production processes, which led to the complete or partial disappearance of a number of specialties, as well as a massive shortage of specialists with digital knowledge, skills, and abilities, Azerbaijani educational infrastructure should be adapted to new requirements. In the education system, it is necessary to develop and introduce fundamentally new approaches to learning, which will ensure a high level of basic digital literacy of the population. To solve such ambitious tasks, first of all, personnel who possess distinctive social and professional characteristics are necessary. In the information age, the teachers of educational institutions must adapt to the possibilities and limitations of the digital economy, use its benefits on a daily basis and feel comfortable when faced with the digital shock of the future, learning continuously throughout life. On the other hand, the teacher must act as a citizen who interacts responsibly with digital government, digital media, and as an employee with the necessary competencies for effective and continuous activity in the digital economy (including the field of culture and research), using activities in the digital environment and digital tools as a learner and professional.

References

- Belshaw, D. (2012). What is 'digital literacy'? A Pragmatic investigation. Doctoral thesis, Durham University.
- Boonloy, W. (2018). Promotion of Lifelong Education for Children in the Digital Era. *Proceedings of the International Conference of Early Childhood Education (ICECE 2017)*. doi:10.2991/icece-17.2018.50
- by Income. *Policy Research Working Paper*, 7528
- Charungkaittikul, S. (2018). Guidelines for Lifelong Education Management to Mobilize Learning Community. *International Journal of Adult Vocational Education and Technology*, 9(1), 31-41. doi:10.4018/ijavet.2018010103
- Evans, K., & Haffenden, I. (1988). Karen Evans Education for Young Adults in Developing Countries: some emerging issues. *Educational Review*, 40(2), 211-218. doi:10.1080/0013191880400207
- Fantom, N., & Serajuddin, U. (2016) The World Bank's Classification of Countries
- Jenkins, H., & Deuze, M. (2006). Convergence Culture. *The International Journal of Research into New Media Technologies*, 14(1), 5-12



- Kovalchuck, V., & Vorotnykova, I. (2017). E-Coaching, E-Mentoring for Lifelong Professional Development of Teachers within the System of Post-Graduate Pedagogical Education. *Turkish Online Journal of Distance Education*, 214-214. doi:10.17718/tojde.328956
- Kupriyanovskiy V.P., Sukhomlin V.A., Dobrynin A.P., Raikov A.N., Shkurov F.V., Drozhzhinov V.I., Fedorova N.O., & Namiot D.E. (2017). Skills in the digital economy and the challenges of the education system. *International Journal of Open Information Technologies*, 5 (1), 19-25
- Rzayev, A., & Suleymanov, T. (2018). Application of ICTs in Teaching, Learning and Management at State University in Azerbaijan Case of Azerbaijan State University of Economics. *SSRN Electronic Journal*. doi:10.2139/ssrn.3160286
- Shabanov, S., & Quliyev, F. (2016). Expert approach to statistical assessment of education quality: The case of Azerbaijan. *IEEE 10th International Conference on Application of Information and Communication Technologies (AICT)*. doi:10.1109/icaict.2016.7991791
- Shirzadova, M. (2016). Transformations and perspectives of development of the system Pre-school education in Azerbaijan. *European Journal of Education and Applied Psychology*, 16-20. doi:10.20534/ejeap-16-2-16-20
- Silova, I., Johnson, M., & Heyneman, S. (2007). Education and the Crisis of Social Cohesion in Azerbaijan and Central Asia. *Comparative Education Review*, 51(2), 159-180. doi:10.1086/512022
- URL: <http://www.mincom.gov.az/upload/files/7127fa87906a4d9af22415aaac9b16ae.PDF>
- URL: <https://edu.gov.az/ru/page/69>



The State of Application of Electronic Education System in Azerbaijan

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Abstract

The article deals with the application of electronic management systems in the higher education system, the increase of electronic resources, the ways to ensure employment and convenience for teachers and students, the implementation of social reading programs apart from traditional lectures in the training classes, provision of information security, and elimination of electronic backwardness. The article also discusses the use analysis of electronic education system in Azerbaijani higher education institutions and evaluation methods of its economic effectiveness. Created a questionnaire to analyze e-learning, traditional training, and mixed learning. The questionnaire covers 20 electronic resources. The level of use of electronic means in the training process was analyzed based on the survey questionnaire. Survey questionnaire was conducted between teachers and students of higher education institutions.

Cluster, regression, SWOT, and PEST analysis methods were used in the process of query processing. As a result, it was recommended to develop a strategy for the electronic education system and to develop a human resources training system for innovative Technologies.

Key words: LMS, SWOT, PEST, cluster, electronic resources.

Introduction

Establishment of Information Society in Azerbaijan is one of the main priorities of the state policy. The main tasks of the formation of information society are the creation of legal bases of information and knowledge society, the development of human factor, the right of citizens to receive, disseminate and use information, the formation of electronic government, electronic commerce, strengthening of economic, social and intellectual potential of the country, establishment of information and knowledge-based, competitive economy, creation of modern information and communication infrastructure, formation of uniform national electronic information space, implementation of electronic governance systems in higher education system, increase of electronic resources, determining the ways to ensure employment and convenience for teachers and students, implementation of social reading programs apart from traditional lectures in the training classes, provision of information security, and elimination of electronic backwardness.

The tendency of global informatization of the society is directly related to the development of educational institutions. This requires the creation of a continuing education system that ensures that everyone has access to quality basic education, as well as to the wishes and demands of everyone at any time and place, from the point of view of the availability of education. It is important to use electronic education (e-education) technologies to build such education system. E-education technologies are the most effective tool for managing new types of education and developing the necessary knowledge and skills in the future for lifelong education. E-education creates a bridge between labor activity and education and creates extensive opportunities for lifelong education.

Metod

In recent years, the ways in which people have interacted with each other has undoubtedly changed. The use of



public network utilities, such as face-to-face dialogue and telephone conversations, continues to increase. Facebook and Twitter. Nothing is different from this phenomenon. It should be noted that students are not separated from smart phones that can update their status.

Note that today there are considerable improvements in internet resources development in Azerbaijan. The main reason for this is the increased interest of the pedagogical staff in the medium and higher education of using the internet as the educational tool. Today, higher education institutions are provided with computer and internet in Azerbaijan. The results of the analyzes show that they are used effectively in the education process. Today's teachers are interested in the development of electronic resources in electronic governance systems. The Azerbaijani state is not indifferent to these issues.

1. Current situation

The State Strategy for the Development of Education in the Republic of Azerbaijan was approved by the Decree 13 of October 24, 2013. The decree states: "In modern times the role of education in economic life has significantly increased. At the moment, education should be accompanied by the introduction of the required knowledge and skills in the economy, as well as the comprehensive training of the person to future life and integration into the society¹. The most important of all is the factor that raises the role of education in economic life. At the same time, rapid technological advancement requires regular updates of knowledge and skills. This increases the demand for new smart educational technologies and more appropriate qualifications and competitiveness. Based on knowledge, the education system occupies a special place in the development of the economy".

The society of information and knowledge creates enormous opportunities for publicizing the individual knowledge with the help of the Internet. At present, a number of reforms are being carried out in Azerbaijan in the direction of formation of information and knowledge society. Adopted by the Decree of the President of the Republic of Azerbaijan dated December 29, 2012², "Azerbaijan 2020: Outlook for the Future" Development Concept and "Strategic Roadmap for the National Economy Perspective of the Republic of Azerbaijan" approved by Decree of the President of the Republic of Azerbaijan dated December 6, 2016 has been accepted. These state programs also give impulse to the development of other knowledge-based economics infrastructure - high quality education, effective fundamental science, knowledge production and high technologies, effective science-technical business venture, and implementation of ideas and transfer. The important role of e-education in the development of national education systems has been reflected in relevant documents confirmed in our country. Thus, the Law of Republic of Azerbaijan on education "833-IIIQ of June 19, 2009" was approved³.

2. Analysis of electronic education system in Azerbaijan and methods of their economic efficiency evaluation

The core of the modern electronic education system is the **LMS (Learning Management System)** or the training process management system. **LMS** is designed for a large number of students and focuses on cooperative training in educational institutions. The main feature is the ability of the trainee to pass a certain part of the course, the date of entry into the course, the number of visits, and to control the process of passing the course. This system allows the user to sign up for listening the course. Sends the registered user a reminder of the next online course. The trainee can check his or her own values. Also, has the ability to chat, participate in different social groups.

¹ "State strategy under development of education in Azerbaijan Republic" by Order No.13 dated 24.10.2013. Baku, Azerbaijan. 2013, <https://edu.gov.az/en/page/473>

² Development Concept "Azerbaijan 2020: The View to the Future", 29 December 2012

³ National Strategy for the Development of Information Society in the Republic of Azerbaijan for 2014-2020 https://president.az/files/future_en.pdf



Here are some examples of electronic education systems currently available around the world:

1. **e LEARNING 3000** - (eLearning Server 4G + RLS + TinCan API for the mobile training). The program uses more universities. Integrated: BD, Active Directories, Navision, 1C, Lotus, SAP
<http://hypermethod.ru/>
2. **Web TUTOR** - (supports the international standards such as SCORM 1.2, SCORM 2004, AICC, TinCan). Working with IE və Mozilla FireFox browsers.
http://websoft.ru/db/wb/root_id/webtutor_sdo/doc.html
3. **MOODLE** 2.6 - (GNU General Public License) shared by license. Integrated: Joomla. 30% of higher education institutions in US, and Czech, Slovak, Hungarian and Thai schools are using it.

It is known that the implementation of advanced technologies in the education system serves to innovative development. The implementation of the LMS system and the Moodle, which has been used to improve the quality of education and dynamic development in our country, has become widespread. Attention is paid to the existing problems and ways to resolve them, discussion of the advantages and perspectives of development, and study the international experience. It is noted that in the modern world, the application of advanced technologies in any field of activity, including education, has a great importance in terms of improving quality in this area, achieving positive quality indicators and dynamic development. It is also noted, that MOODLE LMS is more widely used in the world in comparison with the Blackboard and Sakai LMSs.

At present, the LMS system is implemented in our country. In the UNEC (ASUE), Prometheus has been prepared for 20 observation surveys in the 2015 academic year with 30 teachers and students and 30 secondary education providers in the electronic education system.

As a result, **SWOT** analysis method was used in the processing of surveys, 2 (two) tables were developed on the general state of teachers and students' use of electronic education system.

Table 1. Analysis of teachers' use of electronic education system

Strong sides	Weak sides
Traditional	Online
Hybrid	Offline
Socialnet	Forum
Webinar	Video-lesson
e-lecture	Youtube
e-book	Real time mode
Work in search systems	Wikipediya
	Online-simulation
	Use of e-databases on materials posted online

Table 2. Analysis of students' use of electronic education system

Strong sides	Weak sides
Online	Traditional
Offline	Hybrid
Forum	Work in search systems
Video-lesson	Webinar
Youtube	e-lecture
Real time mode	e-book
Wikipediya	
Online-simulation	
Use of e-databases on materials posted online	



Socialnet

As we see from the analysis, students are more interested in using electronic education system than teachers. On the other hand, although many countries around the world are using electronic education system and using the LMS system, the issue of the importance of establishing this system in our country is reflected only in government programs. Establishing the LMS system will result in more benefits for students.

Let's look at the regression model to calculate the effects of survey results on each other. For this purpose we will process the request data after the survey has been completed.

Table 3 Assessment of survey results

N	e-resources	High school teachers	Middle school teachers	Students	Pupils
1.	Youtube	14	19	11	17
2.	Video-lesson	12	21	10	4
3.	Webinar	9	3	2	6
4.	Forum	4	6	2	2
5.	e-book	30	28	15	24
6.	e-library	11	8	3	9
7.	Wikipediya	10	12	8	13
8.	Real time mode	10	13	3	14
9.	e-materials	11	14	5	6
10.	sos.net	24	21	19	8
11.	Online-simulation	8	7	4	8
12.	Search	5	12	7	17
13.	Hybrid	12	25	12	10
14.	traditional	24	23	23	10
15.	e-base	10	7	2	10
16.	e-lecture	9	18	6	6
17.	Online	5	8	3	8
18.	Offline	2	9	6	4
19.	e-mail	25	26	16	28
20.	Chat	29	27	18	30

To ensure the convenience of the processing, let's codify the result parameters in the survey questionnaire and determine the coded informatics indicators. Codify data in survey form as e-resource and divide them into clusters:

Table 4 . Grouping of e-resources according to usage level

N	e-resources	Result indicator High teacher	Middle teacher	Factor indexes Student	Pupil
Cluster 1 (usage level of network technology)					
1.	Chat (mob.)	29	27	18	30
2.	Sos.net	24	21	19	8
3.	Forum	4	6	2	2
4.	Webinar	9	3	2	6
5.	e-mail	25	26	16	28
6.	Youtube	14	19	11	17
Cluster 2 (usage level of e-training materials)					
7.	Video-lesson	12	21	10	4
8.	e-book	30	28	15	24
9.	Online simulation	8	7	4	8
10.	e- material	11	14	5	6



11. e-lecture	9	18	6	6
12. Wikipediya	10	12	8	13
13. e-base	10	7	2	10
14. e-library	11	8	3	9
15. Search	5	12	7	17
Cluster 3 (priority level of e-education)				
16. Traditional	24	23	23	10
17. Hybrid	12	25	12	10
18. Real time mode	10	13	3	14
19. Online	5	8	3	8
20. Offline	2	9	6	4
Average result	13,2	15,35	8,75	11,7

The table summarizes the result indicator and the factor indexes of the e-resources divided into cluster groups. As you can see, the result indicator of the electronic resources listed in Cluster 1 and the factor indexes are high. Because 99% of the population of Azerbaijan is a mobile phone user. There is a disparity between the value of the result indicator and the value of the factor index on electronic resources found in Cluster 2. Thus, the high teacher's parameters value is lower than the factor index value. In the field of education, there is a great need for creative staff, who work with innovations.

Innovation potential in Azerbaijan is weak. Finally, Cluster 3 usage levels of parameters value are quite low. Because, the azerbaijani-language electronic resources are quite low. No methodological resources have been developed for the use of electronic resources in Azerbaijan. Generally, there is no normative legal document in this field.

Thus, the high teacher's index is calculated based on 20 indicators of 3 factor indexes. Here, e-resources differ from each other by the value of factor groups. For example the average values showing the level of use of e-resources on factor groups were calculated and diagram based on it was calculated.

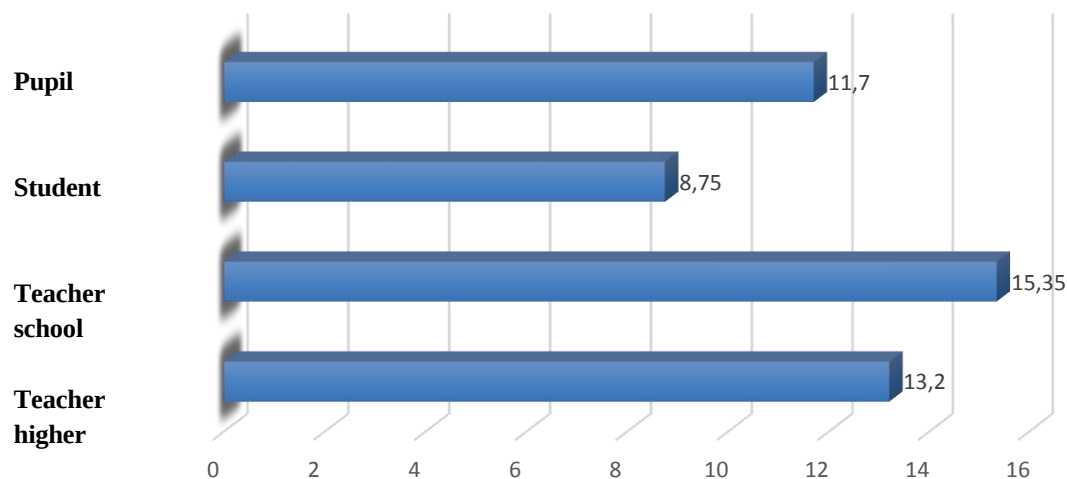


Figure 1. Comparison of factor index.

Regression models are set up on the interaction between the middle teacher, student and pupil factors and the high teacher factor of indicators included in the group of factor indexes. As a result, all units became equal. Let's take a look at the impact of the survey results on each other.

The obtained equality of values and statistics are given in Table 5. The linear regression model is designed for the



following indicators:

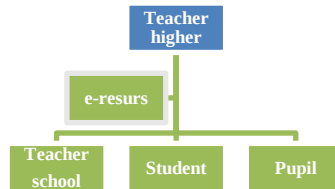


Figure 2. Regression model indicators

Interaction between the high teacher's factor and the other 3 (three) factors – the middle teacher, student, and pupil is determined by the index of the use of 20 electronic resources.

Table 5. Linear regression equations for the group of factors

Factor group	Linear regression equation	Determination coefficient	Darbin-Outson coefficient
Teacher schol	$Y_i = 5,1851 + 0,7701 X_{i \text{ Middle teacher}}$	$R^2 = 0,6683$	DW=2,11
Student	$Y_i = 3.0584 + 0.6547 X_{i \text{ Student}}$	$R^2=0,4913$	DW=1,58
Pupil	$Y_i = 0,1786 + 0,6494 X_{i \text{ Pupil}}$	$R^2 = 0,7199$	DW=1,89

It should be noted that the determinant coefficient depends entirely on the indications of result index value of the high teacher. The determinant coefficient of middle teacher factor indicates that 67% of high teacher depend on a middle teacher. Darbin-Watson's coefficient is smaller than 2, meaning that autocorrecting is adequate for indicators of equality. The determinant coefficients in the high teacher's coefficient, middle teacher, student, and student-dependency models show that the high teacher's result indicator depend on the indicators included in the model: at least 49% of the student factor and 71% of the pupil factor⁴.

The problem of reducing the usage level of electronic resources by teachers has been identified as a result of the regression model based on the questionnaire survey. To analyze the cause of the problem, we need to use the macro environment analysis, in other words PEST analysis. PEST is a political, economic, social and technological environment. Macro-environment is political, legal, economic, demographic, social, cultural, technological and environmental changes in our society's life . We will look at the economic and political environment together because the interaction between them makes it difficult to identify individual effects that are often taken separately. Political change in one sphere creates economic change in other spheres, and changes in the economy can accelerate political activities and changes in general.

Table 6 . PEST analysis

POLITICAL Factor	Impact on institutions	PEST educational Planned event
State does not provide teachers with free internet	The teacher can not work on it	Teachers will be given a workshop on e-mail usage
ECONOMICAL IT department is closing Low funding from public sector	Budget reduction Demand for employers in multi-profile courses	Control over budget spending reduction Requirement for quality improvement, skilled workers search Testing of teachers

⁴ Model evaluation of an Innovative Capital, OCT 12-14, 2016, 607-609. Web of Science
<https://ieeexplore.ieee.org/document/7991775>



IT + health		
SOCIAL		
Rise of salary	Preparation for distance lessons	Appropriate salary
	Preparing graduates for a global career	Work experience on Lonardoo / Erasmus schemes
TECHNOLOGICAL		
Webcam, networking, social networking and online students	Web demand for web-teachers in online social student groups	An electronic warehouse that stores educational facilities, Open Source Web 2.0 new website for students and teachers to use interactivity

In Table 6, we need to look at all the factors in the PEST analysis and to analyze the impact on their higher education institutions by choosing the important ones, and in the end, the most positive and most negative factor that will affect the university's overall macro environment. PEST analysis was based on questionnaire survey. Strategic conditions created by external environment affecting the low level of use of e-resources by teachers in higher education institutions were assessed.

Conclusions

The possibilities for e-learning in Azerbaijan are quite complicated. Development of methodology and normative base is at a low level. The uncertainty of the criteria for the quality of electronic courses, complicates the implementation of electron education.

In the course of the study, the current situation has been analyzed and suggestions have been made to address the problem⁵.

The efficiency of training on the basis of information resources depends on the quality and quantity of resources and information technologies used by teachers and students. Furthermore, the economic effect of electronic courses depends on the number of students.

Electronic training is offered by the government to provide e-standards for new generation technologies, support broadband effective and other emerging technology systems, accelerate technical work required for the national e-portfolio development, and elaborate electronic education methodological plans. In addition, it is recommended that a strategy for the electron training system be developed to expand the national electron education network and create a system of personnel training on innovative technologies.

References

- Development Concept "Azerbaijan 2020: The View to the Future", 29 December 2012,
"State strategy under development of education in Azerbaijan Republic" by Order No.13 dated 24.10.2013.
Baku, Azerbaijan. 2013.
- National Strategy for the Development of Information Society in the Republic of Azerbaijan for 2014-2020.
Baku, 02.04.2014.
- Huseynova Arzu, Salifova Tarana, Mazanova Ophelya, Estimation of innovation activity of the regions of the Azerbaijan republic. 37th International Scientific Conference on Economic and Social Development –

⁵ Lynne S. Wolbert, Doret J. De Ruyter & Anders Schinkel. What kind of theory should theory on education for human flourishing be? British Journal of Educational Studies 2017, Lynne S. Wolbert, Doret J. De Ruyter & Anders Schinkel. What kind of theory should theory on education for human flourishing be? British Journal of Educational Studies 2017



- "Socio Economic Problems of Sustainable Development" - Baku, 14-15 February 2019,41-50; Web of Science.
- Huseynova Arzu "Analysis of innovation potential in Azerbaijan", "Science and education" Baku, 2013, 224-240.
- Huseynova Arzu, Mazanova Ofelya Scientific News of Azerbaijan State Economic University (İSSN 2306-8426), JEL Classification Codes O32; Q55, "Theoretical and Methodological Aspects of Innovative Technologies in the Development of Knowledge Economy", Year 1, Volume 1, January-March 2013, 107-112.
- Huseynova Arzu, Mazanova, Ophelya, Model evaluation of an Innovative Capital, Conference: 10th IEEE International Conference on Application of Information and Communication Technologies (AICT) Place: Baku, AZERBAIJAN Publ.: OCT 12-14, 2016, 607-609 Web of Science.
- Hasanova Zohra, Huseynova Arzu, Mazanova Ophelya, The state of application of electronic systems in higher Education in Azerbaijan. 37th International Scientific Conference on Economic and Social Development –"Socio Economic Problems of Sustainable Development" - Baku, 14-15 February 2019,528-531; Web of Science.
- Mehdialiyeu, AghaMehdi; Mazanova Ophelia, Ieee. On some problems of the creation and development of green technologies in Azerbaijan. 2013 7th International conference on application of information and communication technologies (AICT) Book series: International Conference on Application of Information and Communication Technologies. 2013; Web of Science, Google Scholar: 438–442.
- Matthew D. Dean (2016) A call to embrace social reading in higher education, innovations in Education and Teaching International, 53:3, 296-305, <http://dx.doi.org/10.1080/14703297.2014.991934>
- Mayke W. C. Vereijken, Roeland M. van der Rijst, Arnout Jan de Beaufort, Jan H. van Driel & Friedo W. Dekker. Fostering first-year student learning through research integration into teaching: Student perceptions, beliefs about the value of research and student achievement. Innovations in Education and Teaching International.2018; 55: 425-432
- Lynne S. Wolbert, Doret J. De Ruyter & Anders Schinkel. What kind of theory should theory on education for human flourishing be? British Journal of Educational Studies 2017, pp. 1–15
<http://edu.gov.az/az/page/72/302>



Sustainability on Energy Governance, Recent Trends of the Electricity Sector in Azerbaijan

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Abstract

Our aim is to analyze sustainability on energy governance, recent trends of the electricity sector in Azerbaijan. In particular, the degree of efficiency of the electricity system and the tariff structure to give recommendations for future development and perspectives of liberalization. We argue that government policy should be oriented towards identification of those factors that seek energy efficiency for sustainable development, uncover several laws, ensuring energy security and encourage electricity market. Besides that, by comparing electricity tariffs in Azerbaijan with some other European countries we find advantages in the Azerbaijan-EU partnership on the energy field, thus we propose appropriate forms of cooperation regarding to European Neighborhood Policy.

Key words: sustainable development, energy, Azerbaijan, regulatory authority, electricity sector, transmission, distribution, tariffs, generation.

Introduction

The main objective of the Azerbaijani Government in the energy sector has been to become self-sufficient in terms of meeting the energy demand. This objective has been achieved for oil since 1998 and for gas and electricity since 2007. Moreover, in addition to traditional fossil fuels exports, there is also currently potential of renewable energy deployment especially of wind power and solar photovoltaic energy. According to Action Plan 2011–2015, approved for the implementation of the State Program on Poverty Reduction and Sustainable Development (2008–2015), (2015–2030) the country begin liberalization of enterprises in the fuel and energy sector. Liberalization of some projects in energy fields could bring a synchronized development of small and medium-sized enterprises (SME). Especially the electricity sector which ensures the energy security of the country becomes more important for improvement. Substantial measures were taken for the formation of legislative basis in the power engineering sector, and improvement of legal basis concerning this field. Several laws were passed on power engineering, including the law on “Power Engineering”, “The Use of Energy Resources”, “Electrical Power Engineering” and “Electric and Thermal stations”. Azerbaijan become a regional leader in managing the energy system and raise its export and transit potential in this field. A short-term target should be to prevent wasting natural resources and to develop an alternative, renewable energy for internal needs.³ Baku city and its provisions mostly located on the coast could be supplied with wind and solar photovoltaic energy set using innovative solar heating system in all residential buildings and industrial constructions.

Method

The method of the research is based on a technical-legal analysis of the statistical data on energy sector in Azerbaijan, which is drawn up by the Azerbaijan Ministry of Energy and other regulatory Authorities such as tariff council. Other

¹ Especially in Absheron peninsula (coast of Caspian Sea where is located capital city Baku) where annual sunny and windy days prevail.



strategy to give a comparative analysis in power generation capacity and production, the electricity consumption and dynamics of export and import in Azerbaijan.

1. Institutional structure and legislation

A significant feature is that today Azerbaijan does not depend on foreign resources in the energy sector. Thus, it is a privileged starting point for sustainable development. It provides 100% of its gross energy consumption through domestic production, which is currently largely reliant on the exploitation of the country's hydrocarbon reserves. On the other hand, Azerbaijan cannot depend solely on its energy sector. It must promote sectors as well to build a robust economy for the future. Over the last years, Azerbaijan has successfully identified political development and administrative reform as national priorities in order to increase economic growth, alleviate poverty and decrease unemployment. Azerbaijan has significantly improved its performance and competitiveness in the economy. It is currently the best result among the CIS countries; ranking 39th among 140 countries⁴. The European Union (EU) has endorsed these national development plans of the Government of Azerbaijan and is currently supporting their implementation through the European Neighborhood Policy.

The Ministry of Energy (MIE) is the central executive authority implementing state policy and regulation for the energy sector. Regulatory policy is implemented primarily by the MIE, and also by the Ministry of Economy and Industry and the Tariff Council. The MIE is largely responsible for implementing the various regulations, orders and decrees issued by the government. The MIE has a board, approved by the Cabinet of Ministers, and has authority to issue orders and decrees within its area of competence. Such competence extends to most areas within the energy sector, but not to tariff regulation, which is within the area of competence of the energy regulator, the Tariff Council.

The Tariff Council acts pursuant to authority granted to it by Presidential Decree (26 December 2005), the Regulations on the Tariff (Pricing) Council, and the Resolution by the Cabinet of Ministers (9 March 2006). The Tariff Council establishes the tariff methodology, approves the tariff level proposed by regulated companies (including but not limited to energy), proposes changes to the legal framework as it relates to pricing; and settles disputes regarding price regulation and tariff application. It may act upon its own initiative within its tariff jurisdiction. The Tariff Council has a Chairman and 12 additional Council members who serve in a Council not a staff capacity. The Chairperson is the Minister of Economic Development and the 12 Council members are Deputy Ministers (10 members) and deputy heads of Committees (2 members). In the event that the President, pursuant to a decree, replaces the Minister and deputy heads of ministries and committees, that decree automatically replaces the Council Chairperson and Council members. There are no fixed terms, with the Chairman and members serving for the duration of their appointment by the President.

The main legislative acts regulating the power sector are the Energy Resources Law, dated 30 March 1996, the Law on Electrical Energy (the Electricity Law), dated 13 June 1998, and the Law on Electricity and Heat Power Stations (the Power Station Law), dated 28 December 1999. To satisfy the public's need for electricity and gas, the government adopted the State Program on the Development of Fuel-Energetic Complex of Azerbaijan (2005-2015)⁵. To address the growing global concerns over air-polluting emissions, in 2004, the president approved the "State Program on the Use of Alternative and Renewable Energy Sources in Azerbaijan Republic". Till the 2020 it's expected to increase alternative and nuclear energy percentage of total energy use in Azerbaijan.

According to the Electricity Law, the energy system of the Azerbaijan Republic should make provision for the following. The State Electrical Enterprise operates transmission lines of more than 110 kV, dispatching centers and

⁴ Elshan Ahmadov (2013) Azerbaijan in the context of competitiveness, sustainable development and green economy. Materials of the Baku International Humanitarian Forum, p.259.

⁵ State program on development of fuel-energy sector in Azerbaijan Republic (in 2005-2015 years) (in Azerbaijan language, zip. 1227 kB) http://www.azenerji.com/az/powersystem/law/Dovlet_enerji_proqrami.pdf

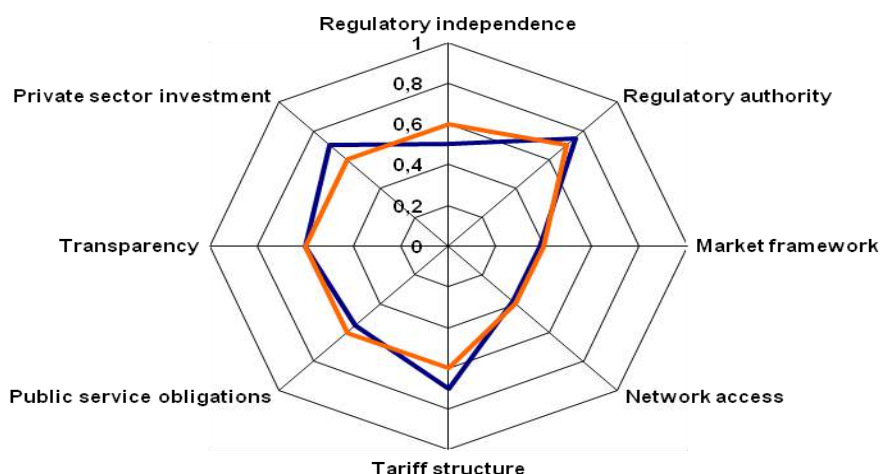


energy production enterprises; second, The State Electrical Enterprise purchases energy produced by independent energy producers for its transportation through the transmission network, and conducts interstate energy exchanges; third Energy suppliers, which purchase electricity from the State Electrical Enterprise or other independent energy producers and sell it to consumers; and finally independent energy producers, which are economically and organizationally independent legal entities and are not part of the common state electrical energy system. These producers generate energy and supply it to consumers directly through their own distribution networks or via the State Electrical Enterprise or energy suppliers. These entities may also export their power.

The main objectives of state regulation of tariffs for electricity are ensuring energy security of the country; maintain a reliable power supply to consumers, set tariffs at a level that ensures the interests of consumers and producers of electricity, to favor investment in power generation facilities and develop interconnections. Moreover, to ensure direct state regulation of prices (tariffs), pricing authorized by the Government of a public authority and establishing methods for calculating tariffs to order their approval and to which all regulatory authorities and businesses. In this way reduction of prices, tariffs and losses, establishing free market and private power plants. Improving the quality of service and improving competitive conditions. Besides that, adapting to Europe standards, harmonization of legislative framework to the Directive and the Regulation of the European Parliament legislative framework and project implementation on transmission and distribution are the tasks set to the government. Besides these regulatory factors, there are many organizational and behavioral factors that influence the choices of project developers⁶. In Section 4 we discuss in more detail the tariff system.

Figure 1 presents the electricity sector results of Azerbaijan, in accordance with the benchmarks and indicators identified in the assessment model. The extremity of each axis represents an optimum score of 1.0, that is, full compliance with international best practices. The fuller the “web”, the closer the overall electricity regulatory framework approximates international best practices. The results for Azerbaijan are represented by blue line.

Figure 1. Electricity spider graph of Azerbaijan⁷



⁶ Sonja Luthi, Thomas Prassler (2011) Analyzing policy support instruments and regulatory risk factors for wind energy deployment - A developers' perspective, Energy Policy 39 pp. 4876–4892

⁷ European Bank for Reconstruction and Development, Group C Countries Report, 2010, p. 197., and In-Depth Review of the Energy Efficiency Policy of Azerbaijan. Energy Charter Secretariat, 2013, Brussels. P.50-66.



For comparison purposes, the red line presents the electricity sector average of the Group C countries (EBRD, 2009). Substantial measures were taken for the formation of legislative basis in the power engineering sector, and improvement of legal basis concerning this field. Several laws were passed on power engineering, including the law on “Power Engineering”, “The Use of Energy Resources”, “Electrical Power Engineering”, “Electric and Thermal stations”, etc.

The Electricity Law requires that individuals and legal entities obtain special permission for conducting activities in the generation, transportation and distribution of electricity if not otherwise determined by law. As a general rule, special permission to carry out activities in the power sector is granted, and the contractors determined, on a competitive basis. The law provides that in certain cases permission may be issued without a tender on the decision of the MIE. The Electricity Law also provides that high-voltage installations cannot be constructed and put into operation without prior special permission unless otherwise provided by law.

2. Electricity prices

The regulated entities are required to provide economic justification for the expenses which make up part of prices (tariffs).⁸ The calculated tariffs are reviewed by the Tariff Council and published upon approval. A uniform tariff for the residential use and other tariffs for commercial and industrial enterprises are in force. In legal terms foreign capital investment in energy assets/companies is permitted and not restricted. Investments in new generating capacities are encouraged, and long-term electricity procurement is guaranteed.

The government has established a medium-term tariff policy that incorporates a transition to full cost recovery for utility service providers with a 10% return on equity. This will enable the utilities to become financially self-sustaining. The Tariff Council chaired by the Minister of Economic Development determines the retail and wholesale tariffs as well as the gas and fuel supply prices. The Tariff Council has powers to set tariffs for any kind of renewable energy, but only wind energy and mini hydro power tariffs have been set. There is no difference in tariffs between cogeneration and traditional power systems. At present, a uniform tariff is applied. The Ministry of Economy of Azerbaijan informed about ongoing discussion in the Tariff Council concerning possible adoption of support schemes (such as feed-in tariffs and feed-in premiums) for the development of renewable energy sector.

The regulated entities are required to provide economic substantiation of the expenses that are part of prices (tariffs). The calculated tariffs are reviewed by the Tariff Council and published upon approval. A uniform tariff for the population and other tariffs for commercial and industrial enterprises are in force. The following types of tariffs exist in the electricity sector: tariffs for the purchase of electricity from producers; wholesale electricity sale tariffs; retail electricity sale tariffs; export and import electricity tariffs.

Tariffs are calculated on a cost-benefit basis, using reports for previous years and actual data, as well as forecasted data, taking into account estimations by the utility companies. Table 1 reports tariffs for electric power and services including wholesale, retail rates and tariffs for consumers' day time and night time

Table 1. Tariffs of electric power, (Manat (AZN),9 Euro)¹⁰

⁸ The Tariff (Price) Council of Azerbaijan Republic <http://www.tariffcouncil.gov.az/?/az/content/44/>

⁹ Central Bank of the Republic of Azerbaijan, 1 Euro = 1,91 AZN (2015) <http://en.cbar.az/pages/national-currency/banknotes/azn/>

¹⁰ Decision № 17 of the Tariffs (Price) council of Azerbaijan Republic. <http://www.tariff.gov.az/?/az/content/70/>



The name of services		Tariffs for 1 kVt/h (VAT included)
I.	Wholesale Rates	
1.2.	Power of Azerenerji JSC	5,7 AZN (3) EUR
1.3.	Private production of small hydro power plants	5,0 AZN (2,6) EUR
1.4.	Wind Power Stations	5,5 AZN (2,9) EUR
II.	Retail rates	
2.1.	For all consumers (monthly consumption up to 300 kVt) with a monthly consumption of more than 300 kW	7,0 AZN (3,6) EUR 11,0 AZN (5,8) EUR
III.	Transit transmission tariffs	
3.1.	Electricity transmission	0,2 AZN (0,11) EUR
IV.	Carried out directly on the power supply lines 35 and 110 square meters, which is stable demand for trucks per day, chemical and aluminum industry, mining based production of steel melting that the average energy consumption for the purposes of producing is not less than 5 million kilowatt/hour	
4.1.	Time of day (morning till 08.00-22.00)	5,8 AZN 3,1 EUR
4.2.	Night time (from 22.00 till 08.00)	2,8 AZN 1,75 EUR

3. Electricity system and power generation capacity

The power sector, along with the oil and gas sectors, has a leading role in the economy of Azerbaijan. Its importance is strengthening energy efficiency and to enrich the development of energy network in Azerbaijan economy. Azerbaijan is fully electrified, and electrical power is the third most utilized energy source (first is natural gas and second is oil) for domestic and industrial use. The sustainable development of the power sector is a top policy priority for the government. Table 2 reports the evolution of the installed capacity and generation of electricity from 1995 until 2013 in Azerbaijan.

Table 2. Electricity generation capacity (MWt) (1995 – 2013)¹¹

Years	The capacity of power plants at the end of the year (MWt)	TPP generation	HPS generation
1995	5 044	4 256	787,7
2000	4 912	3 990	921,9
2005	5 157	4 187	970,1
2010	6 396	5 401	995
2013	7 310	6 227	1083
2015	7 806	6 652	1 103
2016	7 910	6 726	1 105
2017	7 941	6 748	1 106

¹¹ State Statistical Committee of the Republic of Azerbaijan http://www.stat.gov.az/source/balance_fuel/



Azerbaijan's electricity sector is dominated by a vertically integrated company, Azerenergy JSC, which is a 100% state-owned enterprise. Azerenergy was established by Executive Order of the President No. 423 of 17 June 1996. It is the largest electrical power producer in Azerbaijan. Azerenergy JSC produces, transports, distributes and sells electricity throughout the whole country, except in the city of Baku where the electricity distribution is performed by Bakuelektrikshebeke (Bakuelectricnetwork) SC. Azerenergy is entitled to submit proposals on tariff increases and to take part in the tariff regulation process, but the final authority with regard to tariff determination in the electricity sector lies with the Tariff Council.

Azerenergy owns over 200 substations as well as 14 hydro power plants and 13 thermal power plants. Much attention should be paid to the issues of renovation and replacement of the outdated generating capacities of the power transmission system. The important aspect of the problem is close location of the utilities and the consumers to the generating capacities with a view to avoid loss in the energy system. Construction of some new power plants and substations and capital repair of available facilities are planned in the future.

Majority of Azerenergy electrical generation is done at thermal power plants where fossil fuels, mostly heavy fuel oil and natural gas, are used to power steam turbines or gas turbines. Coal powered generation ceased in 1991. Azerenergy has neither nuclear power nor geothermal generating capacity. Hydropower is for now the most important renewable energy (RE) resource in Azerbaijan and in 2010 hydropower satisfied about 18% of the need for electricity generation. Azerbaijan has about 1000 MW of operating hydropower capacity and an additional 62 MW of planned hydropower capacity.¹²

Although there has been little implementation of wind energy in Azerbaijan until the present day, interest has been growing. Its use has huge prospects in some regions of Azerbaijan. Calculations suggest that in Azerbaijan the economically feasible potential to produce about 800 MW of wind power. There are already planned projects of wind energy (Figure 2). The main potential is in the southeast around the Caspian coast.¹³ Wind turbines are one of the most technologically viable and cost-effective options (Morthorst and Chandler, 2004). However, land-use planning challenges pose a significant barrier to the further development of on-shore wind energy in many countries. When making determinations on new wind energy project applications, local planning authorities must balance the needs and views of the local public with the broader national targets and guidance for renewable energy development¹⁴.

Figure 2. Planning projects by the years 2014 – 2020¹⁵

¹² The largest Hydro Power Plant "Mingachevir" in Mingachevir city on the Kura River, renovated in 2001, 360MW; Some of the Hydro Power Plants reconstruction are completed, many of them is under construction and some of them in need of reconstruction.

¹³ Brenda Shaffer (2010), Caspian energy phase II: Beyond 2005. Energy Policy 38 (2010) 7209–7215

¹⁴ Joyce McLaren Loring, (2007), Wind energy planning in England, Wales and Denmark: Factors influencing project success Energy Policy 35 (2007) 2648–2660.

¹⁵ State Agency on Alternative and Renewable Energy Sources (SAARES) <http://area.gov.az/>



The estimates of the solar, biomass and geothermal potential are more uncertain. Even though there is sufficient space to install solar panels, the estimated potential of 5000 MW can only be a long-term goal due to the relatively high upfront investment cost. Biomass utilization is equally unlikely without an incentive system in place. There exists only the potential of geothermal energy for heat supply, due to the relatively low temperatures of the wells.

The main barrier to RES development is the low tariffs with 3.2 US\$/kWh for small hydropower plants (HPPs) and 5.7 US\$/kWh for wind. Another barrier is the lack of a legal basis for connection rules.¹⁶ In order to overcome the barriers to developing RES in Azerbaijan two projects are relevant. The preparation and implementation of an action plan for RE and EE.¹⁷ Second is the improvement of legislation in the field of RE and EE, and compliance with the law of the European Union. This project is ongoing on the part of SAARES in co-operation with the International Academy of Ecoenergy. Azerbaijan is interested in finding solutions to the problems regarding environmental protection and the rational utilisation of natural resources. In support of Azerbaijan's environmental protection goals, a number of important laws, legal documents and state programmes have been developed and approved in order to improve the ecological situation in the country.

4. Dynamics of consumption-production and export-import

Today Azerbaijan's electricity generating capacities allow to completely ensuring the country's peak demand for electric energy. The country's generating capacities are used in various amounts and at different times, which depends on demand, weather conditions and seasons. Nonetheless, Azerbaijan has enough capacity to completely ensure the electricity supply. There are enough resources to ensure the peak energy demand of the country. It also allows exporting electrical power abroad. See the changes on electricity production in last 20 years on (Table 3).

Table 3. Electricity production in Azerbaijan (billion kWt/h) (1995-2017)¹⁸

Years	Electricity generation, billion.kWt/hour	TPP generation	HPS generation	non-energy facilities	through generators	wind power	solar photovoltaic energy
1995	17 044	15401	1 556	86,6	...	-	-

¹⁶ Azerbaijan. Follow-UP IN-DEPTH Review of the Investment Climate and Market Structure in the Energy Sector. Energy Charter Secretariat, 2011, Brussels.

¹⁷ Khazar Consulting Agency (USAID, 2013)

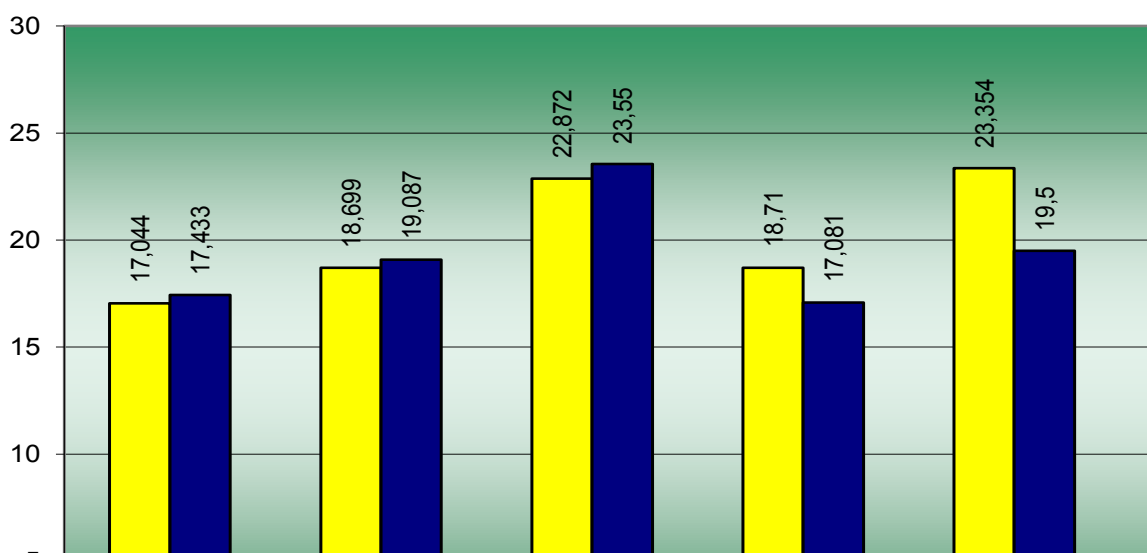
¹⁸ State Statistical Committee of the Republic of Azerbaijan http://www.stat.gov.az/source/balance_fuel/



2000	18 699	17 069	1 534	83,1	13,0	-	-
2005	22 872	19 344	3 009	430,5	88,0	-	-
2008	21 642	19 090	2 232	319,6	-	-	-
2010	18 710	15 003	3 446	259,7	-	0,5	-
2013	23 354	20 065	1 489	1798	-	0,8	0,8
2015	24 688,4	20 904,6	1 637,5	1 955,3			
2016	24 952,9	20 699,0	1 959,3	2 062,0			
2017	24 320,9	20 445,4	1 746,4	1 899,5			

Figure 4¹⁹ shows that how the balance changes after the year 2006. If before 2006 domestic consumption exceeded production, after 2006 the balance changes in favor of production. It gave opportunity to focus on export capabilities. However, one of the reasons for the fall in demand was substantial rises in tariffs tripled in January 2007 coupled with the implementation of the government's policy to install meters and increase bill collection, especially in the recent years for the Azerbaijan government has targeted to become an exporter of power generation in the region. This government program mainly played role to be targeted on preventing transmission and distribution losses, reforming energy legislation and framework to reach an energy efficiency result in economy. In other words, substantial rises in tariffs in January 2007 from 24 \$/MWh to 75 \$/MWh was not so significant if we compare the prices on Table 1 with the prices on Figure 3.

Figure 3. Dynamics of consumption and production of electricity in Azerbaijan for the years, (1995-2018), billion kWt/h²⁰



All above aspects promote the country to open a new stage of development strategy till 2020 in Azerbaijan. Securing long-term energy independence is a stated policy goal for fostering economic growth. One of the main goals was to

¹⁹ State Statistical Committee of the Republic of Azerbaijan http://www.stat.gov.az/source/balance_fuel/

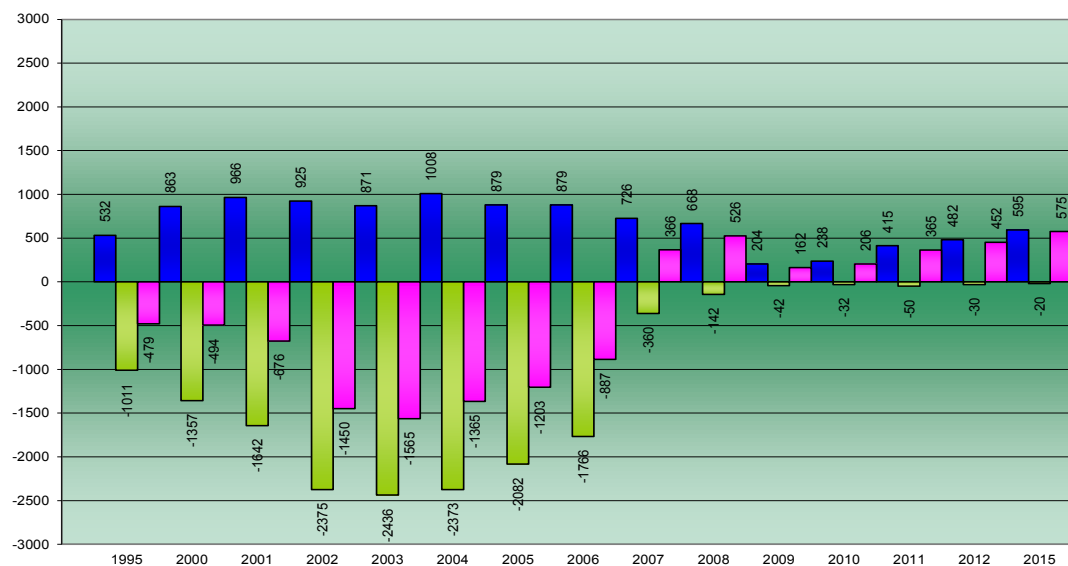
²⁰ Ministry of Energy of the Republic of Azerbaijan <http://www.minenergy.gov.az/?e=526&a=2>, and Index Mundi, Azerbaijan Electricity - consumption <http://www.indexmundi.com/g/g.aspx?c=aj&v=81>



reduce domestic dependence from gas and oil energy supply. Strengthening power generation and renewable energy construction became an important goal to perform.

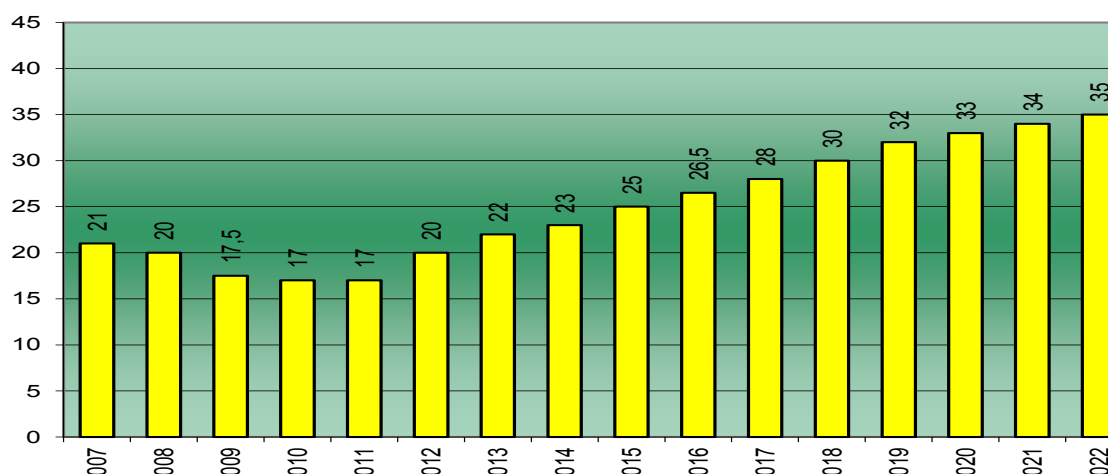
Figure 4 shows the import-export dynamics of electricity power from 1995 to 2015. After 2006 the balance had changed. In 2007 Azerbaijan became an exporter of electricity power. In recent years the government has targeted to increase role of non-oil and gas sectors of economy.

Figure 4. Dynamics of export and import of electricity in Azerbaijan for the years (1994-2011)²¹



The demand on electricity is expected to double between 2012 and 2022, and to increase by almost 140% by 2025 (see Figure 5). The peak demand is also expected to double by 2022–2023 (USAID, 2013)

Figure 5. Demand projection for Azerbaijan²²



5. Transmission system; interconnections with neighbouring countries

²¹ Ministry of Energy of the Republic of Azerbaijan <http://www.minenergy.gov.az/?e=526&a=2> and Index Mundi, Azerbaijan Electricity Imports by Year <http://www.indexmundi.com/energy.aspx?country=az&product=electricity&graph=imports>

²² Azerenergy JSC, <http://www.azenerji.com/en/powersystem/powerlines.html>



Azerbaijan historically has been part of the transmission grid IPS/UPS of CIS countries with a common mode of operation and centralized supervisory control. It has an installed generation capacity of 300 GW, and produces 1,200 TWh per year for its 280 million customers. The IPS includes the national networks of Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Mongolia, Tajikistan and Ukraine. The Russian portion of the interconnection is known as Unified power system of Russia (UPS) and includes six regional transmission operators: ECO Center, ECO South, ECO North-West, ECO Middle Volga, ECO Urals and ECO Siberia. IPS/UPS is synchronously interconnected with the Baltic countries. In addition, it has an inter-link with the Nordic system via a back to back High Voltage Direct Current (HVDC) connection in Finland with a capacity of 1420 megawatts. Increasing transmission capacity and expanding the market by uniting with neighboring synchronous networks will make such manipulations more difficult.

Azerbaijan has a direct border with Russia, Iran, Turkey, Georgia and Armenia on the land and border with Russia, Iran, Turkmenistan and Kazakhstan by the Caspian Sea. Azerbaijan currently has one 330-kV line, one 110-kV line interconnection with Georgia, a 330-kV line, with another 330-kV line planned with Russia. Interconnection with Armenia includes a 330-kV line, one 220-kV line, and three 110-kV lines, all of which have been out of use since the Nagorno-Karabakh dispute. There are two 154-kV lines to Nakhchivan, one 132-kV line between Parsabad (Iran) and Imishli (Azerbaijan) and one 132-kV line at Astara (Azerbaijan). Finally, Turkey one 150-kV line and one 220-230-kV line via Iran both to Nakhchivan (Azerbaijan) and there exist plans to build a 500-kV line the following interconnections with its neighbors (Table 4).

Table 4. Azerbaijan Interconnections

Country	Type of Connection	Maximum Capacity (MW)	Current Status of Line
Armenia	One line 330 kV	420	non operational
	One line 330 kV		non operational
	Two lines 110 kV		non operational
Georgia	One line 500 kV	850	operational
	One line 330 kV	250	operational
Russia		500	operational
Iran			operational
			operational
Turkey		100	operational
		40	operational

Source: Own construction according to data of USAID hydropower investment promotion project (HIPP) Regional Electricity Market Oversight. (2013)

Conclusions

Energy market grow and liberalization is a long process that requires strong and sustained political commitment, extensive and detailed preparation, and continuous development to allow for necessary improvements while sustaining ongoing investment. It is, in fact, a process that has not yet been completed anywhere in the world. In recent years some elements of dynamism have been introduced in the electricity sector through the privatization of mini-power plants and the establishment of two independent regional electricity distribution companies in Azerbaijan. With prospects of sustained demand growth through to 2020, the power sector will require substantial investment for the construction of new electric generation plants, refurbishment of existing facilities and strengthening of the power grid. The rehabilitation of the generation, transmission and distribution assets in the power sectors need to continue. This



will maximize the fuel burning efficiency and minimize the technical transmission and distribution losses. Also, future energy strategies and policies should be transparent and consistent with long-term goals and should consider initiating programs for energy efficiency and setting objectives for key sectors. In the future it will be necessary to ensure renewal of the capacities of the Azerbaijani thermal electric power station, which has been in service for 30 years, or provide alternative generating capacities. Besides that, wind power and solar photovoltaic energy must be developed as well as at the state level and at the household level in every apartment, especially in capital city where annual sunny and windy days exceed. It could contribute to energy efficiency of capital city, sustainable development, ecological issues and faster socio-economic development.

Implementing a good electricity sector liberalization program is a technical, institutional and political challenge. Furthermore, it is necessary to enhance energy security by increasing conventional and unconventional fuels production, utilizing renewable energy potential and maximizing energy efficiency gains and diversifying energy supplies via new interconnections with neighboring markets. Also, to increase a consumer excess potentially competitive segments as generation, marketing and retail supply could be vertically separated from segments that will continue to be regulated (distribution, transmission, system operations) either structurally or functionally. These changes are thought to be necessary to guard against cross-subsidization of competitive businesses from regulated businesses and discriminatory policies affecting access to distribution and transmission networks upon which all competitive suppliers depend. But in horizontal restructuring of the generation segment, to create an adequate number of competing generators to mitigate market power and to ensure that wholesale markets are reasonably competitive. In this way the application of regulatory rules and supporting network institutions to promote efficient access to the transmission network by wholesale buyers and sellers in order to facilitate efficient competitive production and exchange. This includes mechanisms efficiently to allocate scarce transmission capacity among competing network users, and to provide for efficient siting and interconnection of new generating facilities. Finally creation of independent regulatory agencies with good information about the costs, service quality and comparative performance of the firms supplying regulated network services, the authority to enforce regulatory requirements, and an expert staff to use this information and authority to regulate effectively the prices charged by distribution and transmission companies and the terms and conditions of access to these networks by wholesale and retail suppliers of power, are also an important but underappreciated component of successful reforms. Transition mechanisms must be put in place to move from the old system to the new system. These mechanisms should be compatible with the development of well-functioning competitive markets.

References

- DEL RIO,P., UNRUH, G., 2007. Overcoming the lock out of renewable energy technologies in Spain: the cases of wind and solar electricity. *Renew. Sustain. Energy Rev.* 11, 1498–1513.
- ELSHAN AHMADOV (2017) / Smart water management in planning sustainable development. Proceedings of the “Man and Biosphere” (MaB, UNESCO) Azerbaijan National Committee. Annual Edition / Ecological Civilization, Sustainable Development, Environment.
- FEGAN ALIYEV,. Azerbaijan national case study for promoting energy efficiency investment. An analysis of the Policy Reform Impact on Sustainable Energy Use in Buildings
- FOUQUET, D., JOHANSSON, T., 2008. European renewable energy policy at cross roads: focus on electricity support mechanisms. *Energy Policy* 36, 4079–4092.
- LÜTHI, S., PRÄSSLER, T., 2011. Analyzing policy support instrument sand regulatory risk factors for wind energy deployment - a developers' perspective. *Energy Policy* 39, 4876–4892.
- MALAGUETA, D., SZKLO,A., BORBA,B., SORIA,R., ARAGÃO,R., SCHAEFFER,R., DUTRA,R.,2013. Assessing incentive policies for integrating centralized solar power generation in the Brazilian electric power system. *Energy Policy* 59,198–212.
- Memorandum of understanding on a strategic partnership between the European Union and the Republic of Azerbaijan. Brussels, 2006.



- MHAIRI AITKEN., 2010. Why west still don't understand the social aspects of wind power: A critique of key assumptions within the literature., *Energy Policy* 38 (2010) pp. 1834-1841
- PAUL L. JOSKOW, Lessons Learned From Electricity Market Liberalization, *The Energy Journal*
<http://economics.mit.edu/files/2093>
- Rules for Utilization of Electric Energy (in Azerbaijan language, pdf. 1089 kb)
http://www.azenerji.com/az/powersystem/law/EEI_gaydalari.pdf
- Rules of Use of Electric Power, approved by 18th Decree of Cabinet of Ministers of the Republic of Azerbaijan, 2005. Secretariat, 2013, Brussels.
http://www.encharter.org/fileadmin/user_upload/Publications/Azerbaijan_EE_2013_ENG.pdf
- URHAN ALAKBAROV., (2014) Effective Management of Resources to Support Sustainable Development and Move towards Ecological Civilization: Experience of the Republic of Azerbaijan. *Journal of Human Resource and Sustainability* <http://dx.doi.org/10.4236/jhrss.2014.23012>



The Effect of Terror on Education in Turkey

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Abstract

The question of providing national and international security is a problem of high importance for nation-states. As terror-sourced threats cross national borders and target a larger geography of countries or even the entire world in the sequel of globalization, governments are inclined to make a greater effort to provide both national and global stability. Within this scope, the costs that are being faced with to reimburse the economic and social destruction caused by terror and to prevent further terrorist incidents significantly disrupt the economic development processes of countries. As a country with high risks of internal and external threats to security in consequence of its geographical position, Turkey is enduring considerable economic and social costs as well as making significant efforts in fight against terror. One important factor separating developed countries from developing countries is the human capital. Human capital is the knowledge, abilities and skills of a person that helps increase productivity in economic activities. Education is one of the most important elements of human capital. Terrorist incidents cause the implementation of economic development projects to remain inconclusive by posing an obstacle to education, which is a significant element of overall economic development. For this reason, it is becoming increasingly important to investigate the effects of terror on education to be able to maintain economic growth and development.

For this purpose, the effects of terror on education were investigated with the help of a time series analysis and the annual data from 1978–2017 of Turkey's economy. The findings obtained from the study suggested that a rise in terror led to a decline in expenditure on education. In this context, the reduction of terror in a country can help the realization of economic growth and development by having a positive effect on many important factors, especially education.

Key Words: Education, Terror, Time Series Analysis, FMOLS.

Introduction

It is known that terrorism, which became one of the leading concerns of public opinion at the international level, is deeply rooted in history. It has cut across all boundaries with the advancements in technology and has become one of the leading shared problems of the globe. Violent acts caused by terrorism have been threatening humanity in differing ways and scales for centuries.

Over the years, especially in the past century, there has been a constant change in the action patterns, objectives, strategies and weapons of terrorism. While the problem of terror arose largely from the political arguments early in the modern age, it has lately been featuring ethnic and religious differences in consequence of the structural changes it went through (Laqueur 1996: 25).

The issue of terrorism, on which states do not seem to be able to come to an agreement, has been increasingly discussed internationally since the beginning of the 21st century. With the advances in technology, terrorist groups emerging in different types and formats became increasingly more dangerous and destructive through the strict and quality training they undergo (Bal, 2006: 1). There are typically two suggestions to reduce the negative outcomes caused by terrorism. One of these suggestions is increasing the amount of funds reserved for defense



expenditures, and the other is to invest in educational and health expenditures to increase the welfare level of persons who might be affiliated with or sympathize terrorist organizations (Sezgin et al., 2008: 5).

In countries facing the problem of terrorism, the environment of trust and stability deteriorates, which results in interruptions in investments, especially in essential requirements such as employment, education and health. Thus, limited funds in the country are canalized into the defense sector, which drastically reduces the funds being used in other more active sectors. These circumstances pose an obstacle to progress in underdeveloped countries. Direct and indirect investments and human capital investments such as education and health are only possible through security and stability, which are the prerequisites for development and progress. Increases in general quality of life and social and cultural investments in the progress of society, especially in educational opportunities, form the basis of economic progress.

Progress is a far-reaching progress that involves quantitative increases in national income and production, fundamental changes in institutions, reforms in economic and social structures and changes in standards of judgments and behavioral patterns. To speak of progress in a country, there needs to be positive changes in people's mental structures and social habits as well as economic, social and cultural improvements in the society (Güner, 1978: 177).

A major element contributing to the development and progression of countries is education. Education has various positive effects including enhancing public awareness, promoting critical and analytical thinking, helping speed up technological advancements and promoting enhancement of sociocultural skills. Education also paves the way for the sustainability of economic growth and technological advancements by contributing to the development of intellectual advanced thought as well as to skilled labor that can adapt to changing life standards. Thus, it is crucial to increase the funds reserved for education while using these funds effectively to ensure social and socioeconomic development (Gündüz, 2017: 58).

Education is a process of providing knowledge and skills and contributing to the social adjustment of the individual. Education, in a broad sense, involves all modes of learning. More specifically, it refers to knowledge transferred in educational institutions. As far as the economic aspect is concerned, it is important to express how educational qualities are used in the production process and what they are beneficial for (Ünal, 1993: 225).

Being an input of production process, education contributes to economic progress and gives rise to positive changes in individual and social conduct. Besides its close relationship to economic progress, education is also highly important for providing social unity. Education is considered a crucial element in strengthening social unity, especially in ethnically, culturally and socially diverse countries. It is known that as the level of education in a society increases, crime and terrorism rates decrease rapidly, and governments acquire a more democratic stance. This in turn ensures a rather smooth economic development and progress (Krueger & Lindahl, 2001: 1107).

Levels of development in different countries can be evaluated based on various indicators. Two of the most significant of these indicators are the real GDP per capita and educational and health expenditures, which are also referred to as current investments of progress.

As far as studies investigating the relationship of terrorism and education are concerned, it is seen that theoretical studies are limited. Studies involving econometric analyses, on the other hand, are only rare. The findings that these studies provide suggest that the relationship between education and terrorism differ from country to country and that increase in educational funds has a deterrent effect on terrorist incidents. Major empirical studies of this particular context in the literature are mentioned below.



Krueger & Maleckova (2003) investigated the relationship between education, poverty and terrorism. Their study suggests that neither a high level of education nor poverty has a direct link to terrorism. It is mentioned in the study that many terrorists come from well-educated families and are financially well-off. Another model put forward in the study points to a negative correlation between per capita income and number of individuals involved in terrorism in the country.

Testas (2004) indicated in their study investigating data from 37 Muslim countries over the years 1968 to 1991 that internal conflicts, per capita income and education played a crucial role in the emergence of terrorism, which they stated to be a controversial subject. The level of education appeared to be a positive indicator of terrorism, whereas per capita income was a negative indicator. Increasing level of education leads to better trained terrorists and to more destructive terrorist acts being carried out.

Azam & Thelen (2008) focused on the importance of education. In their study looking into data from 176 countries over the years 1990 to 2004, they suggested that Western countries should support education in other countries through external funds to be protected from terrorist attacks.

In their study of Bosnia and Herzegovina, Swee (2009) stated that there was less participation in secondary education in areas more intensely affected by war and that boys were less likely than girls to participate in education. Shemyakina (2011) stated that the civil war that took place in Tajikistan from 1992 to 1998 has significantly and negatively affected the participation of children aged 7 to 15 in education. This effect was more evident in girls. Singh & Shemyakina (2013) indicated that the civil war that took place in Punjab region from 1981 to 1993 significantly declined enrollments in school and that this decline was significantly higher for girls.

Güvercin (2018) investigated the impact of terrorism on education practically for 80 cities in Turkey. In the study where the terrorism index was used as the independent variable, it was found that the decrease in participation in secondary education was much higher in the Eastern cities of Turkey compared to the cities in other regions.

Analysis

Research Period and Data Set

The present study aims to determine the impact of terrorism on education in Turkey through a time-series analysis. In accordance with this purpose, variables will be generated considering annual series of the period of 1978 – 2017. In empirical studies using macroeconomic variables, it is common to take logarithms of series. One important reason for this is to stabilize the variance of the series that is demonstrating an exponential change at level by transforming it to a linear function. For this reason, all series in this study have their logarithms taken.

The model used in the present study is as follows:

$$LEDU_t = \beta_1 + \beta_2(LTER)_t + \beta_3(LGDPP)_t + \beta_4(LSTU)_t + u_t$$

Definitions and ways of acquisition of variables used in the model are given below:

LEDU: Involves all public expenditures for education. It is acquired from World Bank database in the nominal (USD) form and is converted into the real form through the GDP deflator of the country.

LTER: Refers to the terrorism index for Turkey. It is compiled from the Global Terrorism Database set of START, which is an internationally acclaimed research and education center.

LGDPP: Refers to real GDP per capita. The number is acquired from World Bank database in real (USD) values.



LSTU: Refers to the total number of enrolled students in Turkey as acquired from the websites of Turkish Statistical Institute and Council of Higher Education. Descriptions and sources of variables will be summarized below in a table.

Table 1. Variables and Sources

Variables	Definition of Variables	Data Sources
LEDU	Real Education Expenditures	World Development Indicators
LTER	<i>Terrorism Index (Turkey)</i>	<i>Global Terrorism Database</i>
LGDP	Real Gross Domestic Product Per Capita	World Development Indicators
LSTU	<i>Total Number of Students</i>	<i>Turkish Statistical Institute and Council of Higher Education (Turkey)</i>

Unit Root Tests

To obtain reliable results from time series analyses, it is primarily necessary to investigate the stationarity of the series. Regression analyses conducted without being subject to unit root tests are bound to lose their reliability, and it is not going to be possible to test whether the series are cointegrated (Feltham & Giles, 2003: 153).

ADF and PP Unit Root Tests and Results

Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) unit root tests are among the most widely used tests in determining the stationarity of series in time series analyses. Thus, these two tests were the preferred methods of analysis in the present study. Table 2 below shows the results of ADF and PP unit root tests applied for the series.

Table 2. Results of ADF and PP Unit Root Tests

Variables	ADF		PP	
	Intercept	Intercept and Trend Level	Intercept	Intercept and Trend
LEDU	-0.31	-2.57	-0.28	-2.27
LTER	-1.55	-1.61	-1.84	-1.89
LGDP	-0.60	-2.00	-0.52	-2.02
LSTU	-0.59	-2.37	-0.54	-2.49
First Difference				
LEDU	-6.27*	-6.19*	-6.29*	-6.21*
LTER	-5.47*	-5.46*	-5.48*	-5.46*
LGDP	-6.26*	-6.17*	-6.29*	-6.19*
LSTU	-6.08*	-6.01*	-6.35*	-6.29*
Critical Values				
% 1	-3.65	-4.26	-3.65	-4.26
% 5	-2.95	-3.55	-2.95	-3.55
% 10	-2.62	-3.21	-2.62	-3.21

Note: The asterisk (*) indicates that the variables are stationary at the 1% significance level. Critical values in ADF and PP tests were based on the critical table values by MacKinnon (1996).



When Table 2 is considered, it is apparent that all series used in the models are stationary at the first difference [I (1)]. Thus, Johansen Cointegration Test is to be used to investigate the cointegration relationship between the series.

Johansen Cointegration Test and Results

The first study on the theory of cointegration is the single-equation cointegration analysis by Engle & Granger (1987). This analysis was later further developed by Johansen (1988) as ‘multiple-equation’ consisting of a system of simultaneous equations. Johansen cointegration method, which is based on vector autoregression (VAR), is considered to be more powerful in determining cointegration relationships in case of multiple independent variables. The advantage of Johansen cointegration analysis over the Engle-Granger method is that the series contain more information due to the use of level values related to the series in long-term analyses. The greatest limitation in Johansen analysis is the need for the series to be included in the analysis to be stationary at the same order (Doğan et al., 2016: 415-416).

In this method, characteristic root numbers are calculated using the following two statistical methods:

$$\Lambda_{\text{iz(trace)}} = -T \sum_{i=r+1}^m \ln(1 - \lambda_i)$$

$$\Lambda_{\text{max}} = -T \ln(1 - \lambda_{r+1})$$

λ_i , estimated above refers to estimated values of eigenvalues acquired from the π matrix, while T refers to number of observations given in the model. The trace statistics test the alternative hypothesis of “there are more than r cointegrated vectors” against the null hypothesis of “there are maximum r number of cointegrated vectors”. Maximum eigenvalue statistics on the other hand test the alternative hypothesis of “there are $r+1$ number of cointegrated vectors” against the null hypothesis of “there are r number of cointegrated vectors” (Love & Chandra, 2004: 487).

Johansen cointegration test assumes all variables to be endogenous. Therefore, it is necessary that estimations are made via matrices and vectors. For this reason, it is primarily essential to estimate the VAR model and to determine optimal lag lengths (Sevüktekin & Çınar, 2014: 593).

Table 3. Lag Length Test Results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-16.43438	NA	3.55e-05	1.104561	1.278714	1.165958
1	121.3626	238.3515*	4.94e-08*	-5.479060*	-4.608293*	-5.172074*
2	126.3997	7.623780	9.23e-08	-4.886473	-3.319093	-4.333898
3	137.6241	14.56132	1.30e-07	-4.628329	-2.364337	-3.830166

Note: (*), indicates the optimal lag length for each model selection criterion.

Referring to Table 3 above, it is apparent that the optimal lag length is one (1) in terms of all information criteria.

Table 4. Johansen Cointegration Test Results

Cointegration Rank Test (Trace)				
(H ₀)	Eigenvalue	Trace Statistic	0.05 Critical Value	Probability
$r = 0$	0.514526	46.95656	40.17493	0.0090*
$r \leq 1$	0.270742	20.21930	24.27596	0.1493
$r \leq 2$	0.202062	8.537352	12.32090	0.1979
$r \leq 3$	0.005003	0.185564	4.129906	0.7210
Cointegration Rank Test (Maximum Eigenvalue)				
(H ₀)	Eigenvalue	Max- Eigen Statistic	0.05 Critical Value	Probability



r = 0	0.514526	26.73726	24.15921	0.0219*
r ≤ 1	0.270742	11.68195	17.79730	0.3253
r ≤ 2	0.202062	8.351788	11.22480	0.1532
r ≤ 3	0.005003	0.185564	4.129906	0.7210

Note: (*), shows that the H_0 basic hypothesis at 5% significance level is rejected and that the test statistics are significant.

When the results in Table 4 above are evaluated, it is seen that there is a long-termed relationship between series that are investigated through both maximum eigenvalue test and trace test. Since the maximum eigenvalue test values and the maximum trace test values are greater than the critical value at 5% significance level, H_0 hypothesis suggesting 'no cointegration' is refuted for this significance level. Thus, there is a cointegration relationship between the variables.

While a cointegration exists between variables, and as they are first-order stationary, estimating such a model with the ordinary least squares method (OLS) causes deviations from the actual properties of OLS, which is unbiased, consistent and efficient. Besides, once the properties of the OLS estimators are disrupted, the efficiency of the technique to be applied is also disrupted; so, the hypothesis tests are no longer valid. Thus, while the two variables are cointegrated, the relationship between the explanatory variables and error terms emerges and leads to the problem of endogeneity. In this case, variables lose their asymptotic properties. The FMOLS method was suggested to overcome this problem (Berke, 2012: 250-251). The results of estimations regarding long run coefficients are given in Table 5 below.

Table 5. Long Run Coefficients Forecast Results

<i>Model : $LEDU_t = \beta_0 + \beta_1 LTER_t + \beta_2 LGDPP_t + \beta_3 LSTU_t + u_t$</i>				
Variables	Coefficient	Standard Error / Probability	R^2	Adj- R^2
LTER	-0.54*	0.013 (0.0002)	0.847	0.838
LGDPP	0.47*	0.001 (0.0000)		
LSTU	0.57*	0.167 (0.0018)		
C	0.01	0.005 (0.5421)		

Note: (*), indicates the significance level of 1%.

FMOLS results used to estimate long run cointegration coefficients are given in Table 5. According to the FMOLS results, the coefficients of all independent variables are as expected and are statistically significant. The results of the estimation suggest that a 1% increase in terrorism results in a 0.54% decrease in educational expenditures. In addition, it was found that a 1% increase in real GDP per capita led to approximately 0.47% increase in educational expenditure, whereas a similar 1% increase in total number of students produced an approximate 0.57% increase in educational expenditure. The model had an explanatory power of $R^2 \cong 0.84$, suggesting that the independent variables accounted for the presence of the dependent variable at a rate of approximately 84%.

Discussion and Conclusion

Education is one of the leading elements in preparing individuals to become members of society. Education tries to adapt individuals into society by preparing them for social life. The level of development of a society is closely linked to the access the people in that society have to a quality education through which they can give back to their community. Studies in the field of education prove it to be the most effective factor for socio-economic progress. Education is crucial not only for economic progress but also for political and cultural development, technological innovation and global competitive power. An important element through which



developed countries differ from others is their level of education and knowledge. Falling behind in education qualitatively or quantitatively either due to terrorism or economic reasons hinders social development and progress. Thus, before anything else, it is necessary to transfer economic sources into sectors with high output, with education being in the first place.

The present study investigated the effects of terrorism on education. The findings of the study produced similar findings to those investigating the relationship between educational expenditure and terrorism with the use of econometric analyses. A significant decrease in educational expenditure parallel with an increase in terrorist acts was identified in Turkey. This finding reveals the effect of terrorism on education at present in Turkey and provides important warnings for countries facing similar problems.

Thus, it is crucial for countries to improve their understanding of social state to reduce the negative outcomes of terrorism. One of the major duties of a social state is to provide fundamental needs such as education, health and security to their citizens in a fair manner. Otherwise, the image of a country that is insecure and distant from its people in national and international spheres make economic growth and progress difficult.

Initially, it is necessary to increase the level of education in the society through increasing the share of national income reserved for education, therefore reducing sympathy for terrorism, which results in great destruction. It can be foreseen that, in the contrary case, the destructive effect of terrorism will increasingly continue.

References

- Azam, J. P., Thelen, V. (2008). The roles of foreign aid and education in the war on terror. *Public Choice*, 135, 375-397.
- Bal, İ. (2006). *Türkiye'nin Terörle Mücadele Deneyimi: Hizbullah Terör Örgütü Örneği. İçinde İhsan Bal (Ed.), Terörizm: Terör, Terörizm ve Küresel Terörle Mücadelede Ulusal ve Bölgesel Deneyimler (pp. 25-48). Ankara: USAK Yayınları.*
- Berke, B. (2012). Döviz kuru ve imkb100 endeksi ilişkisi: Yeni bir test. *Maliye Dergisi*, 163, 243-257.
- Doğan, B., Eroğlu, Ö., Değer, O. (2016). Enflasyon ve faiz oranı arasındaki nedensellik ilişkisi: Türkiye örneği. *Çankırı Karatekin Üniversitesi İİBF Dergisi*, 6(1), 405-425.
- Feltham, S. G., Giles, D. E. A. (2003). *Testing for Unit Roots in Semiannual Data. In David E. A. Giles (Ed.), Computer-Aided Econometrics (pp. 153-177). New York, NY: Routledge.*
- Gündüz, A. Y. (2017). Ülke kalkınmasında üniversitelerin rolü: Doğu ve Güneydoğu Anadolu üniversiteleri örneği. *Sakarya İktisat Dergisi*, 6(1), 56-69.
- Güner, A. O. (1978). *Türkiye'nin Kalkınması ve İktisadi Devlet Teşekkülleri. İstanbul: Damla Yayınevi.*
- Güvercin, D. (2018). Terörizmin, eğitimde toplumsal cinsiyet eşitsizliğine etkilerini incelemeye yönelik uygulamalı çalışma: Türkiye örneği. *Journal of Yasar University*, 13(51), 281-292.
- Krueger, A. B., Lindahl, M. (2001). Education for growth: Why and for whom?. *Journal of Economic Literature*, 39(4), 1101-1136.
- Krueger, A. B., Maleckova J. (2003). Education, poverty, and terrorism: Is there a causal connection?. *Journal of Economic Perspectives*, 17(4), 119-144.
- Laqueur, W. (1996). Postmodern terrorism. *Foreign Affairs*, 75(2), 24-36.
- Love, J., Chandra, R. (2004). Testing export-led growth in India, Pakistan and Sri Lanka using a multivariate framework. *The Manchester School*, 72(4), 483-496.
- Sevüktekin, M., Çınar, M. (2014). *Ekonometrik Zaman Serileri Analizi: Evviews Uygulamalı. Bursa: Dora Yayıncılık.*
- Sezgin, Ş., Gündüz, N., Sezgin, S. (2008). Güneydoğu terör olaylarının ekonomik sonuçları. *Akademik İncelemeler Dergisi*, 3(1), 5-6.



- Shemyakina, O. (2011). The effect of armed conflict on accumulation of schooling: Results from Tajikistan. *Journal of Development Economics*, 95, 186-200.
- Singh, P., Shemyakina, O. (2013). Gender-differential effects of conflict on education: The case of the 1981-1993 Punjab insurgency. *Available at SSRN 2253382*.
- Swee, E. (2009). On war and schooling attainment: The case of Bosnia Herzegovina. *Households in Conflict Network Working Paper*, 57.
- Testas, A. (2004). Determinants of terrorism in the Muslim world: An empirical cross-sectional analysis. *Terrorism and Political Violence*, 16(2), 253-273.
- Ünal, L. I. (1993). *Eğitimin Ekonomik Rolü ve Türkiye ile İlgili Bulgular, III. İzmir İktisat Kongresi, 4-7 Haziran 1992, Sosyal Değişim ve Sosyal Gelişme Stratejileri*. Ankara: DPT Yayını, 225-234.



The Causes and Consequences of the Devaluation of National Currencies

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Abstract

At present, issues of devaluation of national currencies are becoming relevant due to the need for many governments to stimulate economic development. Devaluation is primarily due to macroeconomic factors. The subjects of research are the current state of the monetary system of various countries, the reasons for the devaluation of national currencies, the impact of the change in the key rate of the US Federal Reserve on the economies of other countries. A direct depreciation of the currency is made on the basis of a decision of the central bank or other regulatory authority of the country. Such a decision can be made in the form of an official depreciation of the national currency, refusal to support the exchange rate, refusal from the currency corridor, or from pegging the national currency to other countries' exchange rates or to currency baskets. The main objectives of the devaluation are to reduce the deficit of payment balance, increase the competitiveness of national goods on the world market, and stimulate domestic production. A significant increase in the volatility of the national currency rate, caused by both the devaluation of national currencies and the change in key rates of central banks, requires more careful study. The monetary authorities of any country constantly have to choose how to conduct an independent monetary policy. In one case, they should refuse to regulate the exchange rate, in the other they should adhere to the fixed exchange rate regime at the price of abandoning independent monetary policy.

The reasons for the devaluation are different in countries depending on the cost of raw materials extracted and countries where the economy is focused on the production of goods and their sale in foreign markets. In the first case, this is the execution of the budget, and in the second - the protection of domestic producers. The decision of the National Bank to devalue the national currency indicates that this method is resorted to when traditional levers of influence on the economy do not work. The devaluation of the national currencies of major economies suggests the beginning of currency wars between major economic powers. The current practice of devaluations suggests that, as in the past century, the main objectives are to increase competitiveness and the formation of a deficit-free budget. States with market economies always strive to balance their economies, including the way of devaluing the national currency. Devaluation becomes relevant in the context of uneven inflation in an open market economy, that is, due to macroeconomic factors. The goals and the level of devaluation are different in different countries. The level of devaluation of the national currency is influenced by gold and foreign exchange

reserves, the dependence of the country's budget on the cost of resources sold, diversification of the economy and other factors.

Keywords: devaluation, hidden devaluation, national currency, exchange rate, inflation, monetary policy, budget deficit, central bank, gold and foreign exchange reserves

1. Introduction

The Great Depression in the early 1930s led to the rapid refusal of all countries from the gold standard, with the exception of the United States. Although formally the gold content of the currency could be preserved, but only as an exchange rate indicator relative to other currencies. In the United States, however, during this period, gold was legally removed from private ownership. At the same time, trying to counter the deepening of the economic downturn, all participants of international trade took the path of sharply increasing tariff and non-tariff barriers, as well as restrictions on cross-border capital movements. In such conditions, the simplest way to ensure net exports was a competitive devaluation. Since practically all countries have taken this path, this phenomenon was later called currency wars [1]. However, a sharp rejection of the gold collateral for their currencies and competitive devaluations caused even greater difficulties in servicing foreign trade payments. As a result, the share of barter in international trade increased, and clearing unions were created to solve the problems of net-importers through the organization of offsets. In such conditions, the currency in international trade from an objective indicator of the balance of supply and demand for goods, services and capital between different countries gradually began to turn into a policy-based means of payment.

The active use of the exchange rate of a number of countries as an instrument of the state's economic policy in order to establish macroeconomic equilibrium in the national economy requires studying how the causes, ways, and degree of goal achievement are achieved. At present, the issues of devaluation of national currencies are becoming relevant in connection with the emergence of the need in many governments to stimulate economic development. Devaluation is due to previous aggregate macroeconomic factors. Direct depreciation is based on a central decision of the bank or other regulatory body of the country. Such a decision can be made in the form of official devaluation of the national currency, refusal to support the exchange rate, currency corridor or pegging the national currency to other exchange rates of countries or to currency baskets. The main objectives of the devaluation are to reduce the balance of payments deficit, increase the competitiveness of domestic goods on the world market, and stimulate domestic production. The term "devaluation" refers to the process of depreciation of the national currency, that is, the main currency for settlements in one territory. Devaluation is the official state-recognized depreciation of the national currency against foreign currency rates.

In a globalized world financial system, devaluation processes go beyond the limits of one country and describe the ratio of exchange rates relative to each other. This is the main difference from inflation, which describes the dynamics of prices strictly within one country. After the abolition of the gold money equivalent, devaluation became the main means of manipulating currency to increase the internal competitiveness of commodity producers. In the XX century, there were more than 400 devaluations of national currencies. In all countries, growth processes occur continuously, or currency depreciation occurs. It is believed that the depreciation of any currency can be called a devaluation if it is significant enough.

2. Methodology

Using the methods of observation, grouping, induction, deduction, and classification, we analyzed the devaluations in different countries.

3. Literature Review

Historically, devaluation analysis has focused on potential income and employment effects. Devaluation was primarily seen as a means of supporting national exports and improving the competitiveness of exported goods on the international market. In the 1930s, countries facing domestic pressure decided to devalue their national currencies in the hope of easing domestic pressure.

There are a number of modern scientific research on the development and improvement of theories that study the devaluation of national currencies. If it is theoretically assumed that financial globalization will lead to full capital mobility, then, in accordance with economics, ideas about the effectiveness of monetary policy are primarily due to the chosen exchange rate regime. This presentation is mainly based on the Mandell-Fleming model, which is an extended version of the IS-LM model of neoclassical synthesis for an open economy [2]. It should be noted that the model of application of Mandell-Fleming is becoming traditional for assessing the effectiveness of monetary policy in the specified conditions. The monetary authorities of any country constantly have to choose how to conduct an independent monetary policy.

In one case, they have to abandon the regulation of the exchange rate, in the other, to adhere to a fixed waiver of the exchange rate with the price of an independent monetary policy. This choice was a textbook and received the name of the position of the so-called impossible trinity (impossible trinity). This implies that the economy can not simultaneously be present at a fixed exchange rate, full capital mobility and monetary policy aimed at achieving domestic goals. The changing conditions in the global economy associated with the growth of capital between countries have responded to two main areas: the continuation of the line of R. Kahn and J.M. Keynes[3,4]. The influence of the central bank on economic activity in the short term is limited by the rapid growth of short-term mobile capital flows. When central banks lower interest rates, they leave the country in search of higher returns, which have a huge impact on economic development.

In the long run, capital outflows due to monetary policy easing can lead to a fall in the exchange rate. As a result, on one hand, exports will be stimulated, and on the other, inflation will be accelerated, including through rising prices for imported goods. Therefore, we agree with those scientists who believe that the effectiveness of monetary policy is directly dependent on the choice of the exchange rate regime. This process itself plays an important role in the context of financial globalization, especially in that monetary policy, including the devaluation of the national currency, is becoming increasingly interconnected with the ongoing monetary policy in the country. Practice shows that the liberalization of currency restrictions should be carried out in a more balanced way, since it carries additional risks. At the same time, a double task falls on the national central banks: maintaining the stability of the domestic monetary sphere and the financial system. An important remark was made by M. Aglietti and A. Orleans: the time of the inflation round was replaced by the volatility of prices for financial assets at the same time as the potentially deflationary effect for the economy in the event of a sharp fall in interest rates on financial markets [5]. According to the researchers, this is what contributes to resolving tensions in highly centralized national financial systems. These scholars are focusing on the deflationary nature of economic crises, noting that under these conditions there is a fall in asset prices, which means that we have to talk about trends in the rise of deflation. The situation in economically developed countries influences modern inflationary processes in other countries. This leads to the inability of national governments to service debt in foreign currency at current rates. The result is the likelihood that leading countries will be able to restructure the debt burden on their own budgets and thereby lose trust borrowers and investors. As a result, any budget deficit will sooner or later be monetized by currency devaluation. Some scholars are considering a new scheme; the functioning of monetary zones is not based on the demand for money, but on the supply and demand of borrowed funds provided by banks, and paying considerable attention to institutions. Thus, according to their concept, there is the possibility of active monetary policy even in the context of financial globalization, leading to a gradual leveling of interest rates.

The fact is that in these conditions the national central bank may provide funds to commercial banks in the country and thereby affect the loan offer. However, as Russian practice shows, interest rates on devaluation and interest rate deduction can lead to additional devaluation, since borrowing money from commercial banks of the central bank does not lend to the economy, and withdrawing money to the foreign exchange market for speculation. Therefore, in modern economics, trying to study the causes and consequences of changes in exchange rates, there are different directions, schools and directions. Nevertheless, we agree with the conclusions of M.A. Panilova that the whole diversity of exchange rate theories can be reduced to two approaches: regulatory and positive [6]. A positive approach assumes the exchange rate of research as a given goal, then its dynamics are studied and future values are predicted. The regulatory approach considers what the exchange rate should be in terms of optimal economic policy. Valuation issues are also addressed in the ever-

improving balance of payments theories. E.M. Petrikova, having studied the existing basic billing theories of balance, comes to the conclusion that in the new world the monetary system should satisfy a number of conditions:

- its operation should not be dependent on any national or interstate financial institutions;
- it is designed to promote effective international payments and build financial and economic relations between countries;
- it should automatically smooth out payment imbalances and minimize the occurrence of financial crises in the global economy [7].

There are many reasons that cause the devaluation. Usually this phenomenon occurs under the influence of various macroeconomic factors. Reasons that lead to a fall in the value of the national currency include the payment deficit (the state does not have enough funds to pay its own obligations to other countries), deterioration in the country's trade balance when imports exceed exports, and high inflation. Devaluation can also occur due to the weakening of the state's economy as a result of crises, wars, natural disasters, and major technological accidents.

4. Analysis of the problem

Consider how countries are oriented, resorting to the devaluation of the national currency. The Basel Bank for International Settlements has published a report stating that in a number of leading Western countries, basic discount rates are at a record low, which has already led to a certain imbalance in economic development, debt growth and, as a result, financial risks. Productivity becomes too weak, and the room for maneuver in macroeconomic policy is limited [7].

The report also notes that the decline in oil prices has already led to certain structural changes in the economy. Now it should take advantage of the central banks of the leading countries of the world and move away from policies that focused solely on monetary regulation. As you know, there is a Keynesian approach, and then the operational use of money as a tool for daily management of the economic situation and the pace of stimulating economic development. The Basel Bank for International Settlements proposes to limit the effect of spontaneous market stabilizers. One of the ways to stimulate the economic development maneuver is the devaluation of the national currency. The current practice of devaluation suggests that, as in the past century, the main objectives are improving competitiveness and the formation of an adequate budget. Market economies always strive to balance their economies, including by devaluing the national currency. For example, the National Bank of Switzerland (SNB) in early March 2009 took a number of measures to weaken the national currency. This happened after he stated that a strong national currency creates an “inadequate complication of monetary conditions” during a period when the central bank is struggling with a recession in the Swiss economy. Pursuing the goal of supporting domestic producers in the current crisis conditions in the hope of increasing the competitiveness of the national economy, the Swiss central bank deliberately devalued the national currency. Thus, Switzerland deliberately went to the depreciation of its franc against other currencies. The intervention of such a large central market activity of the bank actually opened the way for other central banks to follow their example. Analysts say that this step contributed to the beginning of competition between countries in the field of devaluation.

The central banks of different countries periodically implement various programs to stimulate their economies through monetary measures. However, the example of a Swiss bank that tied the franc to euro values of 1.2 showed that the use of hard pegs even for economically developed countries is fraught with risk. The fact is that the debt crisis in Europe made the Swiss franc an interesting currency for keeping funds. However, such a hard relationship required the acquisition by the National Bank of Switzerland of increasing the amount of the euro and spending its gold reserves. In the spring of 2015, the SNB abandoned the hard peg and intentionally went to strengthen the national currency.

Such a rigid peg to any currency, even through devaluation, makes the currency of a given country dependent on the monetary policy of other countries. Japan is one of the most economically developed countries actively using

the devaluation of the national currency to restore its economy. The peculiarity of the Japanese economy is that it has a minimum of natural resources. On one hand, this reduces the dependence of the national currency and budget on the cost of hydrocarbons. At the same time, the indirect costs of hydrocarbons affect the economy of Japan, as it is forced to buy oil products abroad.

The economic revival under the leadership of Japanese Prime Minister Shinzo Abe has even been given the name “abonomics” when it emerges from deflation traps; the printing press is used as the main incentive measure. The essence of monetary policy was not to prevent inflation, but to overcome the negative consequences for deflation of the economy (inhibition of consumer and investment demand). As a result, the competitiveness of export-oriented producers increased in Japan. However, the monetary policy pursued in this direction forced investors to withdraw funds from Japanese securities and invest money in euro denominated bonds. At some point, this led to the creation of illusions for overcoming the crisis in a number of European countries (Italy, Spain, etc.). At the same time, Asian countries have reacted negatively to Japan’s monetary policy. Another reason for the devaluation is the need to form the country's budget deficit and its balance. This basis for devaluation is observed in countries where budgeting depends on hydrocarbon prices. Russia and the Republic of Azerbaijan belong to this group.

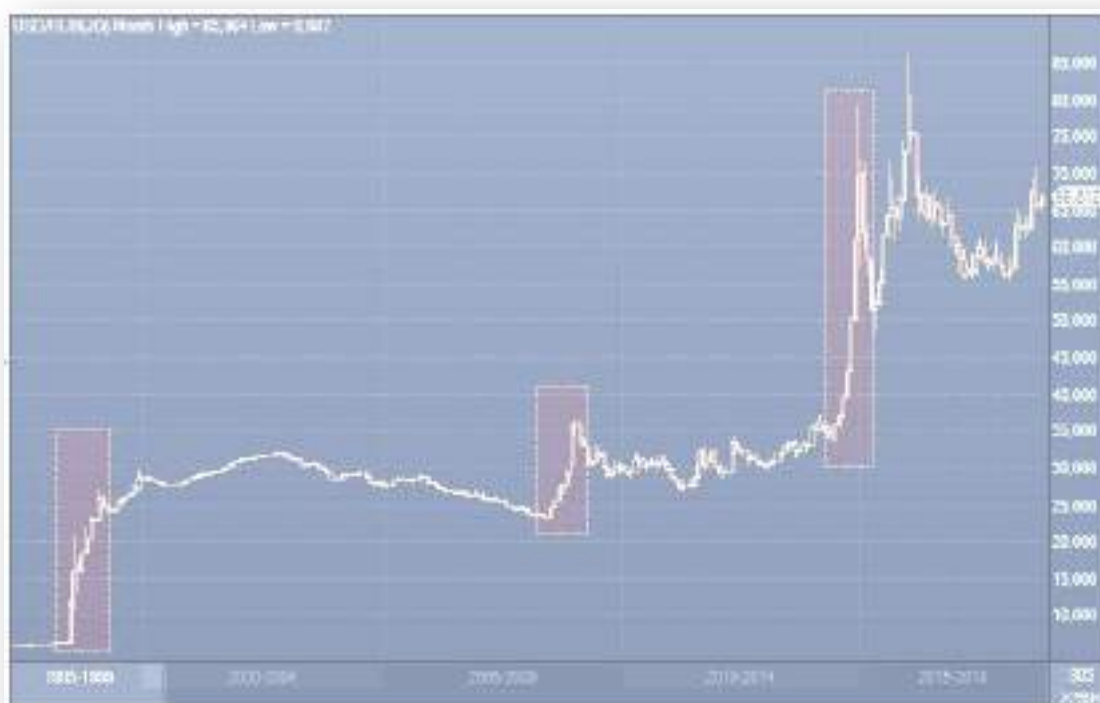


Figure 1. The dynamics of the dollar-ruble [9].

In August-September 1998, the dollar exchange rate soared 3, 4 times in Russia from 6.18 to 21 rubles. In January 2000, it was already 29.5 (4.8 times as compared with August 1998). In the period from August 2008 to January 2009, the dollar soared 1.6 times from 23.40 to 36.45. July- December 2014 the rise of the USD / RUB rate 2.35 times from 33, 70 to 79.25 (see figure 1). The peculiarity of Russia lies in the fact that a model of economic growth has been formed, focused on the conversion of oil and gas in the form of super-profits in domestic demand. She was provided with a rapid increase in wages in all sectors and social transfers, increasing macroeconomic stability. But business strategies turned out to be focused on expanding production, and increasing efficiency did not become a priority.

Devaluation in Turkey, Russia, Iran, Kazakhstan, Ukraine, Belarus, Georgia and other neighboring countries has resulted in an increase in the prices of products produced in Azerbaijan compared with the products produced in

these countries, while reducing the volume of exports of such products from the country, the increase in imports from neighboring countries had a negative impact on the foreign trade balance and caused a currency outflow from the country. At the same time, domestic and foreign investors invested their assets in Azerbaijan by selling their assets in Azerbaijan, using high-valued assets in Azerbaijan to strengthen their foreign exchange flow. Increased import volumes, declining export volumes, increased foreign exchange demand in the foreign exchange market, in turn, increased the pressure on the manat [10].

The government hoping that oil prices would rise again soon as it was in 2008-2009, only the Central Bank's monetary reserves were only pursuing a policy aimed at maintaining the exchange rate of manat against foreign currencies in the foreign exchange market in January 2015 - January 2015 the Central Bank's foreign exchange reserves decreased by 16.5% in absolute terms and in absolute terms by US \$ 2513.4 million to US \$ 12680 million [8]. Consequently, the foreign exchange reserves of the Central Bank, saving stock and improving the competitiveness of products produced in the country, on February 21, 2015, the Central Bank decided to devalue the manat and converted 1 dollar to 1.05 manat, 1euro = 1.19 As a result of the devaluation, the US dollar appreciated by 34.6% against the manat, while euro by 33.7% . The rise in foreign currency caused some problems in the socio-economic life of the country. There were problems with payment of foreign currency loans, the prices of imported products began to rise. Changes in exchange actualized the increase in prices for the products produced in the country.

Devaluation has further aggravated existing problems in the agricultural sector. It turned out that the production of wheat flour produced in the country was inefficient, and both flour and wheat was imported from abroad to meet the demand. Therefore, at the end of March, a 25% drop in bread prices was observed, which touched the interests and resulted in dissatisfaction of the massive population whose nominal income remained unchanged. To eliminate this problem, value added tax (VAT) on wheat import was abolished according to the relevant decree of country's President. The measures taken by the President on the artificial price increases were strengthened. The devaluation of the manat will allow the State Budget to deduce from the Oil Fund. Thus, the amount of transfers from the Oil Fund in the budget draft for 2015 was estimated at 10388 million manats, which would have been \$ 13317.95 million (\$ 1 = 0.78 manats) in US dollars [11]. After the first devaluation of manat, the Oil Fund had to use \$ 9893.33 million to get 10388 million manats to be transferred to the state budget, which would save 3424.62 million dollars.

After the February devaluation, it was assumed that the pressure on the manat would end and the stability in the currency market would continue. But not everything was as expected. Thus, in March-December 2015, intervention of the Central Bank (CB) into the currency market was continued in order to preserve the new exchange rate of manat. As a result, during the month of February 2015, the CB's foreign exchange reserves in absolute terms amounted to 4758.8 million dollars, and relative expression decreased by 1.76 times. Negative processes in the currency market and exhaustion of foreign exchange reserves in the currency market forced the Azerbaijani government to make a decision on the new devaluation of the manat by shifting to floating exchange rate policy. On December 21, 2015, \$1 = 1.55, and at 1 euro = 1.7 manats were assigned. According to the official data of the CB of Azerbaijan, the rate of manat on December 21, 2015 increased by 47.63% or 0.501 AZN compared to December 18 and accounted for 1.55 AZN [12,13]. As for the euro exchange rate, the single currency of the Euro Zone has increased by 47.88% or 0.5456 manat and accounted for 1.6850 manats. The rate of Russian ruble against the manat increased by 47.3% or 0.007 manats, which accounted for 0.0218 manats. In general, as a result of devaluations in 2015, the manat was 98.7% against the dollar and 91% against the euro. CB transition to floating exchange rate and re-devaluation of manat further aggravated the problem of credit debts in foreign currency in the banking sector. The devaluation of manat in some sense has caused a disturbance among the population, and those who lost their trust in the national currency decided to convert all that is left to foreign currency, which, in turn, increased foreign exchange demand in currency market.

A similar model is used in the Venezuelan economy. Since currency regulation here has its specifics (the dollar circulation in the country is limited), a sharp decline in oil prices aggravated the situation in the economy. More than 90% of Venezuelan exports go to the oil, and when its price drops by more than 50%, the country is approaching default. Analysis of the largest oil exporters in the world in 2008 indicates that in different

countries the exchange rate regime was different. The majority of the OPEC countries preferred saving a fixed exchange rate to the national currency of the United States. Thus, they haven't used devaluation even despite the fall in oil prices (Saudi Arabia, UAE) or used it, but at a minimum amount (Kuwait, Qatar). For them monetary stability turned out to be more important. A group of other countries (Venezuela, Iran, Malaysia, Turkmenistan) is not a market for national currency formation. The inability to convert national currency together with the possibility of manipulating trade and investment flows at various rates allowed this country to depreciate their currencies by no more than 3-3.5%. The countries in the third group, where a floating exchange rate was used, carried out a massive devaluation. In the group of oil exporters, the devaluation since mid-2008 was 24-27%, and in the group of gas exporters 21-25%. In our opinion, one of the important aspects of devaluation's success is its speed. The Central Banks of Norway and Australia rapidly devalued, and the rate was 0.25-0.31%. The Russian ruble depreciated against the dollar by almost double- 0.18 per share. As the experience of Norway and Australia shows, a quick devaluation allows you to adapt to the changing conditions of international commodity markets. A cursory depreciation of the Norwegian and Australian currencies ended in the late 2008 and changed the stabilization and strengthening.

A closed economy with a significant drop in commodity prices and budget imbalances, as well as the lack of reserve funds formed in the country during the period of high hydrocarbon prices, is forced to devalue the national currency. For example, in Venezuela in February 2013, the national currency devalued against the US dollar by 46.5%. This decision was made due to the need to increase the financial performance of the government and minimize budget expenditures. Devaluation is designed to optimize revenues, especially aimed at financing social programs for the poor in Venezuela. Most of the economic work devoted to the success of Norway and the positive experience in dealing with the "raw curse" was that the main reason for the success of the policy was the development of the institutional environment in the broadest sense of the word. Consequently, the Norwegian way is to create a developed economic environment with a low level of corruption while protecting market and competitive mechanisms.

A number of countries that are not oil exporters also had to devalue the national currency in 2014. For example, the new Israeli shekel was devalued by 12.7% at the end of July 2014. Local economists point out that the country's economy was directly affected by the economic downturn in Russia. Israeli goods worth \$ 3 billion were imported into the country annually, primarily agricultural products (fruits, vegetables, flowers). In 2014, the National Bank of Kazakhstan also devalued the tenge. The main reasons cited were the bad economic situation in the BRICS countries, capital outflows from developing countries, the transition to the free formation of the Russian ruble exchange rate. In 2014, in total imports to Kazakhstan, goods from Russia accounted for 36.2%. The export of goods from Kazakhstan to Russia is three times less than this volume. Thus, the National Bank of Kazakhstan devalued, pursuing the main goal-to protect domestic producers. As you can see, the devaluation of the national currencies of oil exporters leads to the need to devalue the currencies of the countries economically related to them. And some spend it in order to preserve the supply of their products to the country's market, devaluing their currency, others - to protect domestic producers. About 20 developing countries devalued national currencies in 2014–2015.

БАЛКОТЫ							
РосФинанс.пл: консолидированный прогноз (медиан) ведущих банков и инвест. компаний							
02.11.2018	Счет	4 кв. 2018	1 кв. 2019	2 кв. 2019	3 кв. 2019	2019	2020
EURRUB	74,9177	75,87	76,03	77,06	78,06	79,01	87,80
USD RUB	66,5752	66,30	66,00	66,00	66,05	66,00	65,10
EURUSD	1,1424	1,16	1,18	1,20	1,22	1,24	1,28
GBPUSD	1,3807	1,30	1,33	1,35	1,36	1,40	1,46
USDJPY	112,93	112,00	112,00	110,50	109,00	108,00	100,00
USDCHE	1,0016	0,99	0,98	0,98	0,97	0,96	0,93
EURGBP	0,87031	0,89	0,88	0,89	0,88	0,89	0,90
EURJPY	129,07	130,00	131,00	133,00	133,50	135,00	132,00
EURCHF	1,14423	1,14	1,15	1,16	1,18	1,19	1,20
AUDUSD	0,7244	0,72	0,73	0,74	0,75	0,75	0,76
USDCAD	1,3071	1,29	1,28	1,26	1,25	1,25	1,20

Fig. 2. Consolidated forecast of leading banks and investment companies [9].

Separately, the National Bank of China made a decision on the devaluation of the national currency. This was primarily due to the need to support the country's economy, since the traditional levers almost ceased to operate. The devaluation of the Yuan has become a tool that will solve economic problems.

It should also be noted that the decision of the People's Bank of China followed the refusal of the International Monetary Fund to recognize the currency reserve of China. After that, the PRC became free in making decisions about promoting its exports. However, we believe that the Bank of China is ahead of the US Federal Reserve in the increase of interest rates in the fall of 2015. This allows you to talk about the beginning of currency wars between the largest economic powers in the world.

Devaluation in developing countries in recent years has attracted the attention of economists of the Financial Times. Their study of changes in national exchange rates of 107 countries in 2013–2015 and their export and import in subsequent years showed that there is no statistical link between currency devaluation and export volume, so the former does not lead to an increase in the latter [14].

We believe that this study to some extent replaces the ultimate goal of the devaluation of the national currency, primarily as a result of the fact that in this case the volume of oil supplies was measured, not the value in national currency. The sale is carried out in dollars, and domestically this revenue is converted at a new rate, which allows the budget to be executed with a minimum deficit.

An overview of national currencies shows that targets and levels of devaluation are not the same in different countries. However, the objectives of devaluation include:

- protection of domestic producers;
- ensuring the execution of a deficit-free budget;
- preservation of foreign exchange reserves.

The level of devaluation of the national currency is influenced by:

- ✓ the level of foreign exchange reserves and, accordingly, the ability to support the budget;
- ✓ the dependence of the country's budget on the cost of resources sold;
- ✓ economic diversification;
- ✓ the dependence of the national economy on the economic policies of countries devaluing their currencies.

5. Conclusions and suggestions

Devaluation, being an economic process, has its pros and cons. The emergence of devaluation entails a number of risks for the state economy.

The disadvantages include the consequences of devaluation:

- loss of business reputation, the country becomes less attractive for foreign partners;
- a significant decrease in the standard of living and purchasing power of citizens of the country;
- reduction of social payments;
- loss of confidence in the national currency;
- decline in imports. Due to the high price, imported goods become uncompetitive;
- reduction of investments and production resources attracted from abroad;
- withdrawal of funds abroad;
- acceleration of inflation. Usually, devaluation is accompanied by inflation — price increase for consumer goods are mainly imported;
- massive transfer of savings to more stable foreign currencies;
- early closure of bank deposits, unwillingness to keep funds in accounts;
- a significant weakening of the financial and banking services market.

The advantages include the consequences of devaluation:

- improving the country's balance of payments;
- a significant increase in revenue derived from export currency transactions. To sell goods for depreciating national currency in the domestic market becomes unprofitable, which leads to an increase in exports of goods.

This, in turn, increases the inflow of "hard" currencies into the country;

- reduction of gold and foreign exchange reserves. With devaluation, there is no need to support the artificial exchange rate of the national currency at the expense of gold and foreign exchange reserves.
- a significant increase in demand for national products and goods of own production;
- a significant increase and a significant increase in its own production.

Due to the realization of any part of the above options, the value of foreign currency is artificially reduced, the population stops the mass exchange in US dollars and euro and starts to buy local goods for the national currency. Cashless payments by bank cards stimulate the process of returning the money supply to non-cash accounts.

As the experience of devaluation shows, the functioning of the global financial system depends primarily on the conduct of monetary policy pursued in the interests of the economy of a particular state.

The reasons for the devaluation in countries that depend on the cost of raw materials produced, and in countries where the economy is focused on the production of goods and their implementation in foreign markets, are different. In the first case, this is the execution of the budget, and in the second - the protection of domestic producers. The decision of the People's Bank of China to devalue the national currency suggests that this method is resorted to when traditional levers of influence on the economy do not work. The devaluation of the Yuan allows us to talk about the beginning of currency wars between the major economic powers.

Devaluation becomes relevant in conditions of uneven inflation in an open market economy, that is, due to macroeconomic factors. The objectives and the level of devaluation are different in different countries. The level of national currency devaluation is influenced by gold reserves, the country's budget dependence on the cost of sold resources, economic diversification and other factors.

6. References

- Rickards J. Currency Wars: the Making of the Next global crisis/James Rickards. – L.: Penguin Books Ltd., 2011, 304.
- Lavrov E.I., Kapoguzov E.A. Economic Growth: Theories and Problems: A Training Manual. - Omsk: Publishing House of Omsk State University, 2006, 112-120
- Kan R. "Notes on Liquidity Preference": Some Notes on Liquidity Preference, 1954, 123.
- Veselova N.V. Macroeconomics. Electronic training manual: <http://window.edu.ru/resource.2012>, 41-60.
- Aglietta M., Orleans A. "Money between violence and trust". M.: State University Higher School of Economics, 2006, 355.
- Panilov M.A. "Development of exchange rate theories and the evolution of the principles of its modeling" // Audit and financial analysis. 2009. No. 4. p. 261–284.
- Mankew N.G. Macroeconomics / Trans. from English M.: MGU, 1994, 217-219
- Petrikova E.M. Payment Theories Trends balance//Economic analysis: theory and practice. 2012, № 15, 9–21. <http://www.profinance.ru/news/2018/11/09/bpl2-devalvatsiya-rublya-2019-strashilki-smi-ili-realnyj-risk-obvala.html>
- http://www.cbar.az/infoblocks/money_reserve_usd
- <http://maliyye.gov.az/node/>
- <http://rtv.az/news/>
- R.C.Javadov: "Statistical Assessment of Socio-Economic Implications of the National Currency Devaluation" Audit Magazine, Azerbaijan, Baku, 2016 №4, 33-38

Tret'yakova S.N., Shevchenko I.V. "The modern concept of monetary regulation housekeeper"// Economy of sustainable development. 2015. № 1, 183–189.



Evaluation of Quality of Educational Activity of the Higher Education of Ukraine and Azerbaijan on the Competence Approach and BSC-systems

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Abstract

The development of the higher education is one of the most important tasks of Economics. Modern tendencies of development put forward new demands, namely on the quality of education. Therefore, there is a need for a systematic study of higher education development priorities, directions and models of Ukraine and Azerbaijan. Among the issues discussed in this article is the renovation of the sphere of higher education in these countries, the transfer of attention from the learning process to the result, focus on a competent approach and the search for effective mechanisms for its implementation. The purpose of the article is the results of approbation of methods and models for assessing the quality of educational activities on the basis of a competent approach, which allow taking into account the mutual influence of the directions of activity of universities, as well as their influence on the results of studying students. The article presents the template of the model of competences taking into account the modular two-level organization of the higher education system. The methodology for evaluating the quality of educational activities is based on the competence approach. Among the methods that have been used are: system and competence approaches, BSC analysis and comparison, generalization, etc. The application of these methods of analysis enabled us to trace how the entire chain of causation in the form of a vertical vector is gradually reflected in all components of the BSC.

The main results of this study indicate that the quality of the organization of the university affects the level of competence of students. A BSC-analysis was conducted in eight directions of the university's activity, which allowed to reflect its strengths and weaknesses.

At the same time one can consider different variants of the change of activity and choose the one which will allow to form the highest level of competencies for students. Using a model to assess the quality of learning activities can predict the level of competence of students depending on the quality of the organization of the educational process, as well as identify areas of activity that need improvement and which can affect the formation. a certain level of competence.

Key words: education, system, models, evaluation.

Introduction.

The development of the economy in the sphere of higher education is one of the most important tasks of Economics. Crisis phenomena that accompany the formation of the domestic market economy, indicate the need to find ways and solutions to the problems of higher education development. Therefore, there is a need for a



systematic study of the theory of economic development, which is related to the need to determine the priorities, directions and models of higher education development in Ukraine. Modern tendencies of development put forward new demands, namely on the quality of education. One of the vectors for solving these issues is the renovation of the higher education sphere, the transfer of attention from the learning process to its outcome, focusing on a competence approach and the search for effective mechanisms for its implementation.

Purpose.

The paper examines the results of the approbation of mathematical methods and models for assessing the quality of educational activities on the basis of the competence approach, which allow taking into account the mutual influence of the directions of the university activities, as well as their influence on the results of students' studying, which allow taking into account the mutual influence of the directions of the university activities, as well as their influence on the results of students' studying.

Methods

Competence approach, mathematical methods and models, the method of assessing the quality of educational activity, neural network approach.

Findings

Considered methods and models for assessing the quality of educational activities on the basis of the competence approach allow taking into account the mutual influence of the directions of the university activities, as well as their influence on the results of students' studying. The model of a balanced map of indicators of higher education that includes the strategic goal - improving the quality of education, as well as eight options that describe the main directions of the university was proposed.

It is determined that the quality of the organization of the university affects the level of students' competencies. The conducted experiment showed that the application of the neural network approach will allow higher education institutions to predict the achievement of a given level of competencies, depending on the quality of organization in higher educational institutions. At the same time, it is possible to consider various variants of the change of activity and choose the one which will allow to form the highest level of competencies for students. The use of the model for assessing the quality of educational activities allows to predict the level of competencies of students, depending on the quality of the organization of the educational process, as well as identify areas of activity that need improvement and which can affect the formation of a given level of competencies.

Introduction. The study of economic development in the sphere of higher education is one of the most important tasks of Economics. The contradictory nature of the processes of economic development in Ukraine and the crisis phenomena that accompany the formation of the domestic market economy indicate the need to find ways and solve problems of the development of the higher education. The need for systematic study of the theory of economic development is connected with the necessity of determining the priorities, directions and models of the development of the higher education of Ukraine [5].

The main objective of higher education is to prepare a qualified specialist of the appropriate level and profile, competitive in the labor market, competent, the one who is fluent professionally and is familiar with related fields of activity, ready for permanent professional growth, professional mobility. One of the ways to address this is to renovate the sphere of higher education, shifting attention from the learning process to its outcome, focusing on a competence approach and the search for effective mechanisms for its implementation.

Within the Bologna process, European universities, differently and with varying degrees of enthusiasm are



mastering competent approach, which is seen as a kind of tool for strengthening the social interaction of the higher education with the world of work as a means of deepening their cooperation and recovery in the new conditions of mutual trust [6].

Ukraine began to focus on the competence approach within the development of standards for higher education of the second generation. It was then that an attempt was made to move from the existing system-activity approach to competence. However, the standards of the current generation do not use a competent approach.

Literature review. The theoretical and methodological basis consists of the works of domestic and foreign specialists in the sphere of the quality of assessment of students' knowledge of higher educational institutions on the basis of competence approach, assessment of activities, mathematical methods and models. In the work we use the principles, developed by foreign authors: T. Durand [5], R. Kaplan, D. Noton [9], P. Niven [4].

From the domestic authors these issues addressed V. Baidenko [2, 3], O. Zablotska [8], I. Zymnia [9], A. Kozlov [11], V. Luhovyi [12], etc.

The educational standards were based on the methods proposed in the TUNING project, launched in 2000 and actively supported financially and morally by the European Commission, and now the project covers the vast majority of countries that have signed the Bologna Declaration [16]. According to these recommendations, third-generation draft standards have been developed, in which the results of education are reflected differently from their predecessors: these standards have a loan-competent format.

Methodology and the aim of the article is the results of the approbation of mathematical methods and models for assessing the quality of educational activities on the basis of competence approach, which allow taking into account the mutual influence of the activity directions of the universities, as well as their influence on the results of students' studying.

The main results of the study. In order to promote the Bologna process in Ukraine, it is necessary to develop recommendations, in which the main place should be taken by the norm of quality of the result, which a competence orientation is able to give them. It is necessary to develop the main characteristics of the quality standards of the result, composition and levels, formed by students and graduates of relevant and perspective competencies (requirements for academic and professional preparedness of graduates). Educational standards in the outlined conceptual model will contribute to the development of the quality assurance system at the University, National and European levels. [1].

We should not simplify the implementation of a competent approach in the domestic high school to the level of borrowing of those implemented in European universities of universal and subject-specific competencies. It should be emphasized that only individual academic disciplines or even the content of the entire educational program can not be responsible for the formation of some competencies. Competencies are also a result of educational technologies, methods, forms organization, learning environment, and so on.

Fig. 1 presents a template of competence model which takes into account the modular two-level organization of the higher education system.

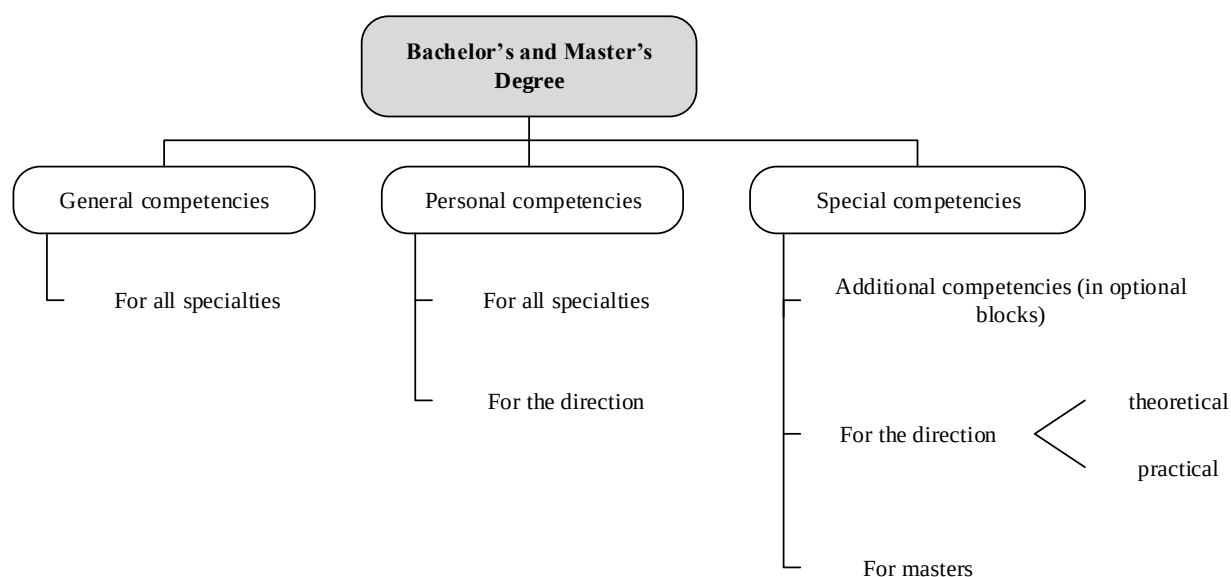


Fig. 1. Template of competency model.

The experience in creating projects of the state educational standards of higher education of a new generation testifies to the diversity of methodological approaches [6,7].

Two proposed classes of competencies will also be present in the proposed template, but their content will be slightly different. In the process of education, any student specifying in any fields receives two blocks of knowledge:

- the first one concerns general scientific approaches and methods, basic concepts and definitions;
- the second unit belongs directly to his specialty, and the knowledge and skills that he will receive will be developed by special competencies.

Consequently, in this template there will be general competencies that are characteristic of all areas of study, as well as special ones that relate to a particular direction.

In addition to these two classes, it is necessary to allocate another class of competencies - the personal. This class of competencies can be characterized as skills and rather it characterizes directly the student himself, but its self-development, as well as the composition depends on the subjects studied by the student.

Thus, the template of a competence model initially includes only general competencies and general personal competencies.

Indicators used in these procedures could become the source of a balanced system of indicators (BSC). BSC is something more than a simple set of key indicators or basic success factors. The multidimensional indicators in a properly constructed system should consist of interrelated goals and assessment criteria for their achievement, which are consistently complementary.

A balanced system of performance indicators is the interdependence of causal relations with the criteria for evaluating the results and the factors for achieving it. BSC developers have identified four components: finances, customers, internal processes, training and staff development. These components have been designed to meet the requirements of a wide variety of organizations and industries. However, these components are an example, not a



dogma. There is no such mathematical theorem that could prove that the four components of the BSC are necessary and sufficient; they «should be regarded as a template, not as a rigid scheme» [12].

It is clear that the components for a balanced system should be chosen, guided by the knowledge of the strategy. To select the components of the BSC it is necessary to determine the key components that will describe the strategy.

The four constituents are wide enough to cover most of the components [10]. However, it is possible that an organization receives a competitive advantage through relationships or processes based on another component. In this case, you can add a constituent to display this component. For example, the effectiveness of a university can largely depend on the quality of carrying out scientific work. Adding a constituent that reflects scientific activity will be of great significance for this organization.

Based on the findings of the BSC developers that the four constituents are merely an example, in the construction of a university activity assessment system, it is suggested that eight constituents be assigned to fig. 2.

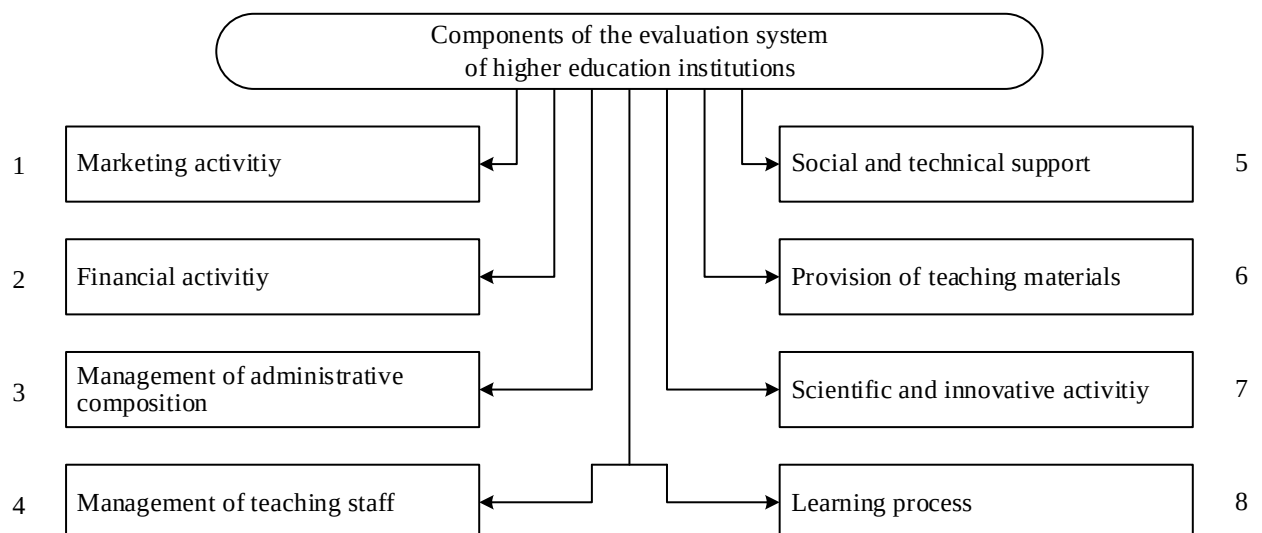


Fig. 2. Components of the evaluation system of the university activity

The purpose of the BSC is to assess the quality of the organization of the learning process. For successful students' training, it is necessary that the main directions of the higher education institutions function at an appropriate level of quality. So, these directions should be included in the BSC.

It should be borne in mind that the resource components should be located on the lower levels of the BSC. The BSC proposed by us will evaluate the availability of university in two directions:

1. «Social and technical provision» – takes into account the provision of students and teachers with social and technical goods (food, accommodation, etc.).
2. «Educational and methodological provision» – takes into account the availability of the literature in the university.

The last component below the «Learning Process» (see Fig. 2) refers to the development and assessment of the



scientific potential of the university. Without the development of science, the university is unlikely to be able to supply its students with new and relevant knowledge, and, consequently, the learning process should be based on the results obtained in the implementation of scientific research, experiments and projects. The top of the model is a component, the assessment of which will reflect the level and quality of the organization of the educational process in universities.

The chain of causation, being the main element in the construction of the BSC, runs through all the components of this system [13]. Thus, it is possible to trace how the whole chain of causation in the form of a vertical vector is gradually reflected in all components of the BSC (see Fig. 2).

Two models can be used to assess the quality of education in HEIs:

1. Competence model - to assess the quality of graduates knowledge.
2. Balanced Scorecard (BSC) – to assess the quality of the educational process organization.

Assessing the quality of education on the basis of these models will give a certain result, but it will not be objective due to the fact that these models are used separately, without any binding to each other.

The competency model and the model of the activities of higher educational institutions, described with the help of a balanced scorecard, affect each other and can not be considered separately.

Combining balanced scorecards and a competency model by establishing a link between a specific purpose of the BSC and a specific competence is a very difficult task since an individual goal has an impact on the competency model as a whole, rather than on its individual elements. Combining models with this method will not fully reflect the impact of the quality of the organization's areas of activity on the quality of student knowledge, expressed as a set of competencies.

However, the relationship between these models can be set at the level of BSC options and competency groups(Figure3).

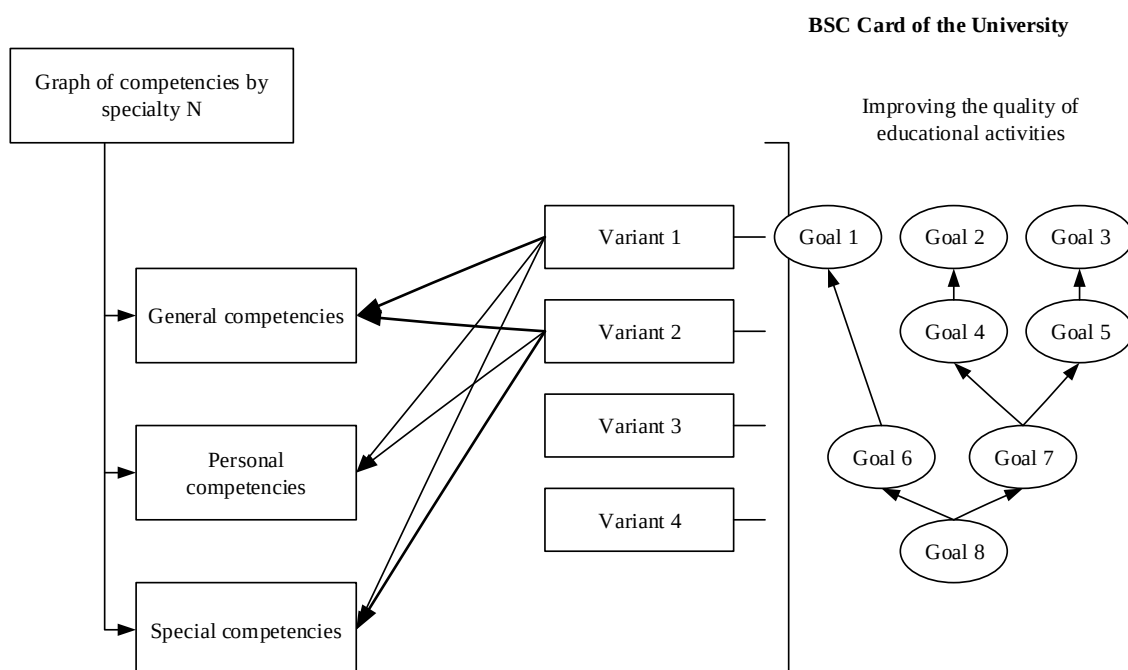




Fig. 3. Interconnection of BSC card and competency model of student.

In order to bind the BSC and the competency model, it is necessary to form some kind of mathematical relationship between the groups of competences and the BSC variants, which will allow determining the competence values depending on the contents of the options for the composition of the BSC. Detection of such a dependency is a non-trivial task, because each indicator varies in different ways on the competence of students, and therefore the dependence will be described by different functions. Theoretically, it is possible to find an averaged function, which to some extent will be suitable for each particular variant, but again it will have a high degree of inaccuracy.

Determining the relationship between the series of values of competencies and variants of the BSC card is possible only through the use of a neural network approach that works on the principle of biological neural networks – networks of nerve cells of a living organism.

The final value of the degree of implementation of the component was calculated as the sum of the stages values of the goals:

$$x_l = \sum_{j=1}^m c_{jl}$$

In order to validate the model of education quality assessment, its testing was carried out on the basis of the National Academy of Management.

The conducted experiment confirmed that the use of a developed model for assessing the quality of education based on BSC and a competent approach will allow predicting the level of students' competencies, depending on the quality of the organization of the educational process.

Results, Conclusions and Recommendations

A mathematical model for assessing the quality of educational activity in higher educational institutions, that is centered on the neural network which is based on the logistic function, is developed. The proposed model of a balanced map of indicators of higher education includes one strategic goal – improving the quality of education, as well as eight options that describe the main directions of the university. The proposed BSC card template is not a standard and may vary depending on the size, purpose and direction of the university.

The developed questionnaire allowed to assess the level of competence of graduates.

Each of the elements of the developed model: the competence tree and the BSC card provide an opportunity to evaluate and identify improvements in the quality of education in higher education institutions.

The BSC map allows to monitor the main directions of the University's activities by setting goals and indicators that reflect the performance of each direction. Applying this model, one can identify a set of directions, where the state of the goals that determine this direction do not meet the norm. The unsatisfactory state of any purpose implies the need to adjust the activity controlled by this goal as well as the purposes that underlie the desired goal. For example, when testing the developed model with the help of the BSC card, it was discovered that the goal «Increase the level of projects implemented by graduates», which is part of the «Educational process» direction, is lower than the norm. Therefore, it is necessary to pay attention to the preparation of students who will graduate, namely – the provision of students with materials for writing master's thesis, the quality of organizing events in the framework of preparation for protection, the quality of advice of scientific managers. In addition, the goal «Increasing the level of projects implemented by graduates» is based on the goal «Provision of students with laboratory equipment», and therefore the leadership of the university needs either to upgrade



laboratory equipment or to make it current or major repairs.

It was noted that the quality of the university organization affects the level of competence of students. Therefore, the elimination of problems in the organization of activities should lead to an increase in the quality of competencies. If an expert on the quality of higher education in the analysis of the student's competence tree finds the inconsistency of the norm of certain values of competencies, while all the directions of the BSC card are in line with the norm, then he needs to pay attention to the quality of the content or the quality of teaching subjects that develop this competence.

The conducted experiment showed that the application of the neural network approach will allow higher education institutions to predict the achievement of a given level of competence, depending on the quality of organization of activities in higher educational institutions.

Applying the neural network approach, the university has the ability to predict the level of competency values that students will receive in case of changes to certain areas of higher education. At the same time, it is possible to consider various variants of the change of activity and choose the one which will allow to form the highest level of competencies for students.

The use of the model for assessing the quality of educational activities can predict the level of competence of students, depending on the quality of the organization of the educational process, as well as identify areas of activity that need improvement and which can affect the formation of a given level of competence.

References

- Antonova O.M. (2018) Methods and models for assessing the quality of educational activities as a component of the economy. *Actual problems of economy*, 4, 57-72. (in Ukr.)
- Bajdenko V.I. (2005) Competency Approach to Designing State Educational Standards for Higher Professional Education (Methodological and Methodological Questions): *Methodological Manual*, 114. (in Russ.)
- Competency Approach in Modern Education: *World Experience and Ukrainian Perspectives* (2004), 112. (in Ukr.)
- Desyatov T.M. (2008) National qualifications frameworks in EU countries: comparative analysis: Scientific method. *Manual*, 263. (in Ukr.)
- Durand T. (1997). Strategizing innovation: competence analysis in assessing strategic change. In A. Heene & R. Sanchez (eds) *Competency-Based Strategic Management*. Chichester: Wiley.
- Galyamin I.G. (2005) Variant of the Third Generation State Educational Standard for the HSP «Water Resources and Water Use». *Research Center for Quality Assurance Problems*, 69. (in Russ.)
- Galyamin I.G. (2005) Designing of the state educational standards of higher education of a new generation using the competence approach. *Research Center for Quality Problems of Specialists Training*, 106. (in Russ.)
- Introduction to the THINKING project – Harmonization of Educational Structures in Europe. The contribution of universities to the Bologna process. http://www.unideusto.org/tuningeu/images/stories/documents/General_Brochure_Ukrainian_version.pdf.
- Kaplan R. C., Noton D.P. (2005) Balanced Scorecard. From strategy to action, 320.
- Kichuk N.V. (2010) Competency Approach in Higher Technical School: Application Problems. *Pedagogical science: history, theory, practice, trends of development*, 2. (in Ukr.)
- Kozlov A.N (2012) Evaluation of the quality of education using neural networks, *Izvestiya Samara Scientific Center of the Russian Academy of Sciences*, 4 (5), 1454-1456. (in Russ.)
- Lugovyi V.I. (2009) European Concept of Competence Approach in Higher School and its Implementation Problems in Ukraine. *Pedagogics and Psychology*, 2, 13-25. (in Ukr.)
- Maisel S. (2001) Performance measurement survey by the American Institute of Certified Public Accountants and Lawrence.



- Niven P.R. (2004) Balanced Scorecard: Step by Step: maximizing efficiency and consolidating the results, 328. (in Ukr.)
- Shutler I.Y. (2015) Modification of models for the development of the national economic system. *Actual problems of economy*, 11, 14-20. (in Ukr.)
- The Bologna process: the middle of the path (2005), 379.
- Zablotska O.S. (2008) Competency Approach as Educational Innovation: Comparative Analysis. *Bulletin of the Zhytomyr State University*, 40, 63-68. (in Ukr.)
- Zymnyia I.A. (2004) Key competencies as a resultant-target basis of the competence approach in education: the author's version. *Isled Center for Quality Assurance Problems for Specialists*, 40. (in Russ.)



Tourism Education in Azerbaijan: Current Situation, Problems And Solutions

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Abstract

Tourism has been chosen as one of the priority areas among non-oil sectors. Although there are prerequisites for the development of tourism in a country with rich natural and historical-cultural recreation resources, the use of country's rich tourism potential is not sufficient. One of the reasons why tourism cannot achieve any result is the problems of tourism education. This problem is also delaying the transition to sustainable development of tourism. These reasons make it necessary to carry out research on tourism education, identify and solve problems.

Some issues related to tourism education have been touched upon in the Strategic Roadmap for Tourism Development, tourism related programs and some tourism textbooks, and highlighted the importance of solving the problem. Almost all tourism education institutions and most of the qualified cadres in tourism are concentrated in the capital Baku and other major cities. This indicates that there is an inequality in the location of skilled cadres in the field of tourism, and according to these figures the regions are far behind the major cities like Baku, Ganja and Sumgayit. Investigation of tourism education requires a comprehensive and systematic analysis.

Statistical analysis, comparative analysis and SWOT analysis methods have been used in this article, which examines the problems of tourism education in Azerbaijan.

If problems on tourism education are solved, it will be possible to make better use of the country's recreational potential and improve the quality of tourism services. The problem of tourism education is to increase the number of enterprises providing tourist education, to study and apply the experience of developed countries, to strengthen the staff in the tourism education institutions, to introduce innovative methods of teaching, to improve the quality of textbooks, to enhance tourism education in the regions, and to provide internship opportunities for students and young researchers to meet their needs.

Key words: Tourism education, innovative methods, effective use, staff, internship opportunities.

Introduction

Tourism having a special place in the non-oil sector is developing fast during the last years. Infrastructure in the tourism destinations is strengthening and the number of foreign tourists is increasing. All this requires to increase the number and quality of specialised personnel for tourism sector. And strengthening the cadre is possible by tourism education meeting the modern requirements. Despite not any special program of tourism education was prepared in Azerbaijan, the tourism education was shown as one of the priorities in the Strategic Roadmap and other State Programs and increasing of investment in this field was overseen. There is a need for detailed investigation of tourism education for development of this sector.

Because of small number of statistical data of tourism education and broadcasting on the topic, the preference has been given to information from Internet. This article aims to partially remedy deficiency in the field of tourism education in Azerbaijan.

Methods

The methods of statistical analysis, comparative analysis and SWOT analysis methods have been used in this article. Because of that there are not any detailed data of tourism education in Azerbaijan in the reports of the State Statistical Department, State Tourism Agency and other state bodies, it has been forced to use incoherent information placed in Internet. When using comparative analysis method, such countries as Turkey and Russia, having the similar economic and social status and peculiarities of development of tourism as well as having close tourism relations with Azerbaijan have been chosen. By SWOT analysis the strong and weak sides of tourism education in the country as well as opportunities and threats have been pointed out.



Tourism education and its significance

Tourism education means such activities as to impart tourism consciousness (concept) to students, teach basic principles of hospitality, improve general and professional knowledge of personnel working in the tourism industry, grow managers, research specialists and technical workers for this industry. The aims of tourism education are to impart tourism consciousness (concept) to people, to increase productivity in tourism sector, to give professional knowledge and behaviour to personnel rendering service to tourists, to teach future workers to provide balance among authority, capacity and responsibility (Mavis, Kozak:1992:169).

Tourism education opens up wide opportunities for saving cultural and historical heritage, thereby saves not only monuments as material objects but also language, customs, folklore and many other ethnocultural components. Professional tourism education moulds a specialist who is responsible for the holistic and constructive development of the whole tourism movement (Fedulin, 2008:71).

Tourism education is necessary for coping with a strong and dynamic marketing conception, getting support from lobbies for favor of the country, forming public opinion, establishing public relations and solving complex problems caused by marketing.

Professional and qualification structure of the personnel of tourism is permanently improving since dynamic changes of consumer demand and social and economic conditions of tourism business require proper corrections. At the same time the existing practice of preparation of personnel of a country has to be permanently harmonized with the world practice and standards. For effective production activity the content of preparation of tourism personnel should be defined by qualification testimonial representing science-based set of professional abilities and skills officially fixed in qualification requirements at state level.

Principles of educational conditions and models of formation of highly skilled specialists – tourism activity leaders at vocational guidance level through the first level of professional education (colleges), tourism type of higher schools and graduate schools in conditions of Azerbaijan deserve consideration.

Tourism education should be approached to not only as preparation of personnel but also as educating investors and leaders, tradesmen, managers of both public and private sectors and on the whole the people.

Comparative analysis of tourism education in Azerbaijan

Tourism education is provided in about 10 universities and 2 specialized colleges. Baku State University (BSU) started tourism education in 1980 as the first step. The main scientific direction of the Department of Economic and Social Geography of Foreign Countries and Tourism of the Faculty of Geography of BSU is Development Perspectives and Regional Problems of Tourism in Azerbaijan. The Department has relations with Balikesir University and Chanakkala University and Turksoy Centre in Ankara (Baku State University, <http://bsu.edu.az>, 2019).

This university is the first higher school starting tourism research. At present, the university prepares personnel on Tourism and Hoteling specialization. Some students have internship in foreign countries (USA, Turkey, Cyprus) during summer.

An only university specialized in Tourism Education in Azerbaijan is Azerbaijan University of Tourism and Management which was established in 2006. 3 faculties and 9 academic departments specialized on different fields of tourism are acting in the university. Students specialized in Tourism and Hoteling have their internship not only in Azerbaijan but in other countries, too. Students can individually apply for this practice and use



chances coming from cooperation of the university with foreign hotel and tourism companies located in Kazakhstan, Germany, Malta, Daghestan, Israel, Greece, Russia, Spain, Turkey, Czech Republic, USA, Northern Cyprus, the Ukraine, UAE, and Seychelles Islands. An agreement on double degree program was signed between Azerbaijan University of Tourism and Management and Krems University of Austria (Azerbaijan University of Tourism and Management, <http://atsmu.edu.az>, 2019).

After gaining independence of Azerbaijan in 1991, tourism sections have been opened in public and private universities and now these sections are acting in about 10 universities.

Tourism sections are acting in Turkish World of Economics Faculty of Azerbaijan State University of Economics and its Zaqatala branch having highly qualified specialists and infrastructure for tourism education. Tourism section students have opportunities to have internship in various tourism enterprises. Besides these universities, tourism sections are acting in Azerbaijan Cooperation University, Ganja State University, Mingachevir State University, Lenkaran State University, Western Caspian University and Sumgayit State University. Majority of sections providing tourism education are located in Baku. These universities have a wider personnel and infrastructure, when material and technical basis and personnel of regional universities are weaker and they have less specializations.

Besides universities, two colleges providing tourism education (Baku Physical Education and Tourism College and Mingachevir Tourism College) are acting. In Mingachevir Tourism College prepares various specialists and 4 of them are directly connected with tourism (Mingachevir College of Tourism, <https://mtk.az>, 2019). Majority of institutions providing tourism education in Azerbaijan started to act during last 20 years and their alumni satisfy demands on tourism personnel only partly. In the Strategic Roadmap for Tourism Development it was shown that only 10% of workers acting in the tourism sector are tourism specialists (Strategic Roadmap for the Development of Tourism Industry in the Republic of Azerbaijan, 2016:75). The number of workers acting in the tourism sector in 2018 was 53222 people (Statistical Yearbook of the State Statistical Committee of the Republic of Azerbaijan, 2019:19). When comparing Azerbaijan with countries having tourism relations with it (Turkey and Russia) we can observe that the number of tourism education schools and specialties provided, is much less than in those countries. 40 tourism faculties and 14 tourism management and hoteling institutions were acting in Turkey in 2018. Besides, there are 12 tourism management sections in Economics and Organization of Business faculties of universities (Keles, 2018:220). Widening of tourism education net caused the increase of ratio of people working in tourism sector. So 2,000,218 people were working at tourism sector in Turkey in 2016 which was 8% of all working people (Şit, 2016:101).

It is planned for 2023 to increase the number of workplaces at tourism sector for 80% in comparison with 2013 (Çelik, <https://www.turizmgunlugu.com>, 2017).

There is a tourism net in Turkey bringing together universities, vocational schools and colleges and they play significant role in preparation of the personnel. Transformation of 200 vocational schools to colleges should be realised during the next 5 years (<https://www.ntv.com.tr>, 2019).

Despite the big number of tourism education schools, many researchers are pointing out the existence of some serious problems in tourism education field in Turkey. The main problems are shortages in the policy and planning of tourism education, weak coordination between the tourism sector and schools providing tourism education, deficiency of integration in tourism education, lack of legal protection of educated tourism specialists and insufficient level of foreign languages (Olçay, 2018:385).



In Russia having close tourism relations with Azerbaijan, until 1990 there were not any higher education schools providing tourism education. 286 higher education schools providing tourism education have been registered in 2018 in Russia which made progress in the field of tourism education during independence. In Russia feeling deficiency in tourism personnel meeting international standards the main problem in tourism education is provision of mainly theoretical knowledge to students and low level of practical skills of alumni [- Trusova, Trusov, 2015:179]. As a result of tourism reforms and some advancements in the field of tourism education it became possible to raise the share of tourism sector in economy to 3.47% or 3 trillion roubles in 2017 (<https://www.interfax.ru>, 2018).

4.5% of able-bodied population worked in tourism sector in Russia in 2017 and rising of this indicator to 5.9% is prognosticated in 2028 (<http://www.atorus.ru>, 2019). The researchers are pointing out that absolut majority of people working in tourism sector in Russia do not have professional tourism education.

According to data of experts, about 80 percent of the present collaborators of domestic tourist firms do not have the relevant education (Radkov, <https://akvobr.ru>).

Existence of similiar problems in the field of tourism both in Azerbaijan and in the selected for comparision countries (Turkey and Russia) is being observed. In all three countries the main problems are difficulties in length of service and smallness of practical knowledge of alumni, insufficient level of foreign languages, weak coordination between the tourism sector and schools providing tourism education. Absence of solution of tourism education problems is among the reasons why the rich tourism potential is weakly used in all three countries.

Efforts for development of tourism education in Azerbaijan

Holding of some international events (Eurovision 2012 -Song Contest, the First European Games, the Fourth Islamic Solidarity Games, Formula 1 Grand Prix, UEFA Europa League final etc.) during the last 10 years not only raised the prestige of the country, it also demonstrated how preparation of tourism personnel is important. Declaration of tourism as one of priority fields in the non-oil sector requires development of tourism education. Tourism education is especially mentioned in the state programs of the country connected with tourism. One of the activity directions of the State Program on Development of Tourism in Azerbaijan Republic in 2010-2014 adopted in 2010 was "Improvement of personnel preparation and refresher training system, realisation of projects on education abroad" (State Program on Tourism Development in the Republic of Azerbaijan for 2010-2014, 2010:64)..

"The Strategic Roadmap for Tourism Industry Development" can be evaluated as the most important stage in tourism education development. The fourth strategic goal of this document ratified on December 6, 2016 is "creation of national tourism quality system for increasing pleasure of tourists". The following measures for development of tourism education were planned in "the Strategic Roadmap":

- Creation of a working group for coordination of tourism education and training programs;
- Creation of regional vocational schools of tourism within Azerbaijan University of Tourism and Management;
- Preparation of profession standards and curricula on tourism sector and taking measures for certification of tourism guides;
- Organizing educational seminars for representatives of sectors connected with tourism;
- Taking measures for MBA programs on Tourism (Strategic Roadmap, 2016:76-77).

Strengthening professional tourism education is one of the main conditions for complete realization of reforms conducted in this field. Despite this priority will not directly influence on the sector, but will help increase the



real GDP of Azerbaijan. Successful implementation of the Strategic Roadmap will be helpful for creation of new working places in education field and increasing interest of young people in tourism specialization. Taking into consideration the development tendency of world tourism, features of tourism development in the country, development of new destinations and kinds of tourism, there is a need for preparation of “The Strategy of Tourism Education Development”.

Creation of the State Tourism Agency in the country in 2018 can be evaluated as continuation of structure reforms. Realization of the tasks of Agency (improvement of research and statistics for a longer development, preparation of relevant state programs and development concepts, marketing for defining the main tourism markets, taking propaganda measures for involvement of tourists from suitable countries and regions, preparation and realization of marketing and communication plans of regions and cities, development of tourism education, the maximum use of opportunities of innovations and modern technologies in tourism, widening state-private business cooperation etc.) is possible only by tourism education meeting the developed modern requirements (State Tourism Agency of the Republic of Azerbaijan, 2019)

Main peculiarities of tourism education in Azerbaijan

The system of tourism education of Azerbaijan is similar to the system of developing and post-soviet countries. The peculiarities of tourism education in Azerbaijan belonging to the group of developing states because of the level of development can be generalized as following:

- Tourism education is a new phenomenon for Azerbaijan. With small exceptions, tourism education started in the period of independence.
- Ecological and tourism consciousness is not inculcated before the university education.
- Tourism education schools are mainly concentrated in big cities and tourism education in the regions is limited.
- The number of specializations in universities providing tourism education is small.
- The system of tourism education of Azerbaijan is similar to the system of post-soviet countries.
- There is not any systematic approach in Azerbaijani tourism education.
- Frequent structural changes are observed in the schools providing tourism education.

Problems of tourism education in Azerbaijan

There has been no significant progress in the field of tourism education in Azerbaijan during the Soviet period which ended in 1991. Changes in tourism education in Azerbaijan became possible after the country gained independence in 1991. In the first years of independence, tourism departments were opened at various universities, and in 2006, the University of Tourism was established. Despite some work in the field of tourism education, only 10% of the country's tourism sector is qualified. The shortage of personnel in the tourism sector also hinders the sustainable development of tourism, making it difficult to fully utilize the tourism potential. At the same time, due to the shortage of professional staff, it is not possible to effectively carry out activities in the field of planning, marketing and promotion in tourism.

Most of Azerbaijan's tourism education facilities are located in Baku. The number of tourism education establishments and specialties in the regions is low. Armenian occupation of 20% of Azerbaijani territory has made it impossible to establish tourism education facilities in the unique destinations of Nagorno-Karabakh and its surroundings.

Lack of professional staff and quality textbooks in tourism education institutions in Azerbaijan has a negative impact on the development of tourism education. At the same time, there is a discrepancy between the curriculum in tourism education institutions.



Inadequate understanding of tourism in higher education can be seen as an important disadvantage in tourism education.

In the Strategic Roadmap for Tourism Development, the number of graduates from tourism specialty are very low in Azerbaijan, despite the growing popularity of tourism among young people, it is not yet sufficiently prioritized by students because of its seasonal character. At the same time, it was noted that the material and technical base available in higher, secondary special and primary vocational schools in Azerbaijan does not meet international standards and students are being taught more theoretical knowledge. All these factors make it necessary to hold reforms in tourism education and to study the experience of advanced tourism countries, and to take into account the social and economic conditions in Azerbaijan.

SWOT analysis on tourism education in Azerbaijan

Analysis of tourism education in Azerbaijan has allowed to summarize both its strengths and weaknesses, as well as opportunities and threats. The results of the author's SWOT analysis are given below.

Table 1. SWOT analysis of tourism education in Azerbaijan

Advantages	Weaknesses
1. Availability of tourism education university, tourism departments at several universities and colleges 2. Certain experience in tourism education 3. Availability of a certain number of personnel studying abroad in the field of tourism 4. To highlight the need to improve the quality of tourism education and conduct tourism research in government tourism programs. 5. Providing certain internship opportunities for students studying tourism 6. Availability of masters and doctoral education in some universities of the country in the field of tourism education	1. Lack of understanding of tourism in lyceums and secondary schools 2. Fewer universities and colleges providing tourism education 3. The fact that tourism education facilities are mainly located in the capital Baku and there are few tourism education facilities in the regions. 4. Lack of specialties in tourism education institutions 5. Lack of highly qualified tourism personnel in universities 6. Lack of quality textbooks 7. Limited opportunities for students studying in tourism to study abroad 8. Poor cooperation between tourism companies and universities.
Opportunities	Threats
1. Transformation of Azerbaijani high schools with great potential (UNEC, Baku State University and Khazar University) into tourism education centers of the region 2. Sending Azerbaijani tourism graduates to gain master's and doctoral education to Turkish universities where language problems are not experienced. 3. Organization of teacher and student exchanges with Tourism Universities in Turkey, Russia, Ukraine, Kazakhstan. 4. To provide internship in prestigious scientific centers of the world cooperating with Azerbaijani universities. 5. Creation of a personnel bank for the tourism sector. Increasing the tourism quota in the list of students sent abroad through the Ministry of Education of Azerbaijan. 6. Active participation in the educational projects of the World Tourism Organization, UNESCO and other	1. Occupation of tourism areas of Azerbaijan, such as Shusha, Khankendi and Kalbajar and failure to establish tourism education facilities 2. The problem of finding employment for graduates of tourism department 3. Redirecting recipients of tourism education to other areas 4. The influx of graduates from tourism departments to foreign countries 5. Non coming back students studying tourism abroad



international organizations.

7. Use the North-South and East-West transport corridors to expand tourism links

Results, Conclusions and Recommendations

Rapid development of tourism in Azerbaijan requires improvement of tourism education. In order to solve the problems related to tourism education in the country, we consider it expedient to implement the following measures.

Inclusion of tourism related sections to the books "Geography and Life Knowledge" taught in high school in order to increase the understanding of tourism (consciousness) at an early age

- Organization of Tourism Olympiads in the country
- Organization of Young Tourists Clubs in secondary schools and colleges;
- Strengthening the material and technical base of universities and colleges providing tourism education
- Establishing network of vocational schools providing tourism education
- Sending employees in tourism education institutions to the leading tourism education universities of the world for research and internship purpose and to tourism companies providing internship opportunity. leaders in the world's leading tourism education universities and internship tourism companies.
- Implementation of "Tourism-oriented Secondary School → Vocational Schools → Colleges → University" scheme in tourism education system
- Creation of jobs in the tourism sector for women and youth.
- Resolving the insurance problem of the tourism sector.
- Definition of professional standards in tourism.
- Establishment of cooperation between the tourism sector and tourism education institutions.
- Implementation of effective planning of tourism education.
- Development of joint internship programs by tourism companies and companies.
- Strengthening foreign language teaching in tourism education institutions
- Opening of tourism guide courses by professional teachers.
- The use of Turkey's Anatolian Tourism Specialist internships

Azerbaijan needs to expand its rapidly developing tourism sector and increase investment in this area. The provision of the tourism sector with qualified personnel depends on the quality of education. For the comprehensive development of tourism education in Azerbaijan, it is necessary to develop and implement the "Tourism Education Strategy" based on the priorities outlined in the Strategic Roadmap.

The three-tiered tourism education system could be more useful for Azerbaijan. If this system is implemented, it will be possible for the tourism sector to train all personnel from technical staff to managers.

Qualitative tourism education is of particular importance in terms of optimizing the environmental impact of tourism and sustainable development of tourism. Effective use of Azerbaijan's rich tourism potential will depend on the development of tourism education in the country.

References

- Çelik, Y. (2017), Jobs in tourism sector to be increased by 80%, Available online: <https://www.turizmgunlugu.com/2017/07/08/turizm-sektorunde-istihdam-yuzde-80-oraninda-range/> (accessed on 11 May 2019).
- Fedulin A.A. (2008), "Tourism problems: new horizons of development", "Problems of service and tourism" №1, 71, 72-76.



- Keles, Y. (2018). Why Tourism Education? A Research on Undergraduate Tourism Students, *Journal of Tourism and Gastronomy Studies*, 6 (4), 220, 219-236.
- List of tourism in the Russian Federation at 3 trillion rubles, Available online: <https://www.interfax.ru/business/614216>, 24.05.2018 (accessed on 03 April 2019).
- https://akvobr.ru/radkov_kadry_dla_turizma.html, (accessed on 11 April 2019).
- Mavis, F., Kozak S. (1992). Tourism Program at Specialty Schools and Anatolian University (Eskişehir Specialized School) Program on Department of Tourism and Hotel Management, 169, 169-172.
- Mingachevir College of Tourism website, Available online: (<https://mtk.az/%C9%99sas-s%C9%99hif%C9%99/about-us/>) (accessed on 3 June 2019).
- Olçay, A. (2008), Importance of Education in Turkish Tourism, *Gaziantep University Social Science Magazine* 7 (2), 385, 383-390
- Published rankings and antitrust ratings, online tourism, Available online: <http://www.atorus.ru/news/press-centre/new/42788.html>, accessed on 6 March 2019.
- Radkov, A. O staffing tourist resorts, Available online: https://akvobr.ru/radkov_kadry_dla_turizma.html, (accessed on 11 April 2019).
- State Program on Tourism Development in the Republic of Azerbaijan for 2010-2014 (2010), ,Available online: <http://www.e-qanun.az/framework/19342>, accessed on 2 March 2019.
- State Tourism Agency of the Republic of Azerbaijan, Available online: <https://tourism.gov.az/az/site/general-information> (accessed 23 May 2019).
- Strategic Roadmap for the Development of Tourism Industry in the Republic of Azerbaijan, Baku, December 6, 2016, p.75
- Strategic Roadmap for the Development of Specialized Tourism Industry in the Republic of Azerbaijan, Baku, December 6, 2016, p.76-77.
- Şit, M. (2016), Employment Contribution Of Tourism Sector In Turkey, *Journal of Academic Approaches*, SPRING 2016 VOLUME: 7 ISSUE: 1, p.101, 101-117)
- The vocational school will be given the status of the tourism college by -200. Available online: (<https://www.ntv.com.tr/turkiye/200e-yakin-meslek-lisesi-turizm-meslek-koleji-statusune-getirilecek,7GdPdfyRJkK8zLaFwOShnA>), (accessed 20 May 2019).
- Tourism In Azerbaijan, Statistical Yearbook of the State Statistical Committee of the Republic of Azerbaijan, Baku 2019, p. 19).
- Trusova N.M, Trusov AN, (2015) Visioning in the Sphere of Tourism: The Problems and Roots of the Renaissance, *Vestnik KemGUKI*, No. 33., 177-186, Available online: http://tourlib.net/statti_tourism/trusova.htm. (accessed on 18 April 2019).
- Website of the Faculty of Geography, Baku State University, Available online: http://geography.bsu.edu.az/en/content/xarc_lklrn_qtsad_sosal_corafyasi_v_turzm_kafedrasi_37) (accessed June 15, 2019).
- Website of the Azerbaijan University of Tourism and Management, Available online: (<http://atsmu.edu.az/index.php/universitet/partners>) (accessed on 29 May 2019).



Inclusive Education is the Basis for Universalizing of Higher Education

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Abstract

For many years, the focus of scientific and pedagogical research has been on finding effective strategies for the theory of inclusion, which contributes to the achievement of the main goal of inclusive education - the creation of a truly humanistic society based on inclusive culture. Currently, the most relevant is the development of inclusive higher education as a science - research and practical direction.

The principles of universal learning design allow you to create the conditions for the actual introduction of students with a variety of educational needs into the process. The use of the system of universal learning design allows to solve many problems of the transition period, to pay attention to the peculiarities of students' personality development. Universal design in education improves the development of inclusive forms of education and professional competence of teachers.

Keywords: Universalization in high education, Inclusive education in Azerbaijan, Inclusive high education, Universal design in learning, Innovations in high education

Introduction

“Pedagogy should focus not on yesterday’s, but on the future of human development,” stated L.S.Vygotsky, one of the founders of modern pedagogical science.

Enhancing higher education and improving the efficiency of the educational process is associated with a global approach to education, with the internationalization of education. “Global education” reflects the emergence of new approaches to understanding the integrity of the world and the actualization of those subject areas that reflect the sustainability of social development, the importance of international understanding and peace, the rights of every person, of democracy and cultural diversity.

Global education is related with the reflection in the educational process of the trends of universalization lifestyle and the strengthening of the regional development; the organizational forms are of great importance themselves, that they allow improving educational practice. Radical changes in the cultural, social, economic and political spheres of society in many countries led to the formation and development of inclusive education. These changes cause undoubted modifications in ideology of society and in relation to people with disabilities.

Exploring foreign literature on the formation and development of inclusive education could be divided into several stages, beginning from complete denial (up to the XVIII century) then insensibly integration of people with disabilities and socially disadvantaged into society (from the XVIII century to the beginning of the twentieth century).

1. The first steps of universalization in educational systems.

L.S. Vygotsky, J.Karger & C.Hitchcock and others researchers of pedagogical science state, in the first decades of the XIX century, the problem of co-education not only occupied the minds of progressive teachers, but also in a number of cases was successfully tested in the folk schools in some European countries. European inclusive pedagogy begins in the XIX century with the pedagogical ideas of J.Pestalozzi - about the need and possibility of



teaching all children and preparing them for future work activities, about diversified development in accordance with their nature and needs, about the importance of teaching for children with mental retardation, physically and socially disadvantaged. (Karger, 2004) (Kukuev, 2010) (Vygotsky, 1983)

After more than a hundred years, European education will rediscover educational integration for itself and find a new ways to solve the related problems. In the 40s of XX century begins the most progressive stage of the development of inclusive society and education. The period of the Second World War and the following years forced the society to reconsider its attitude to the value of human life. The economic, technological and informational capabilities of the European developed countries and the USA allowed establishing all conditions for the implementation of inclusive education, with the existing system of special education.

In Europe, integration begins to implement mainly in a legislative and practical way. The Declaration adopted by the Salamanca Conference (UNESCO held the World Conference on Education for Persons with Disabilities) calls for understanding of the inclusive education content and the introduction of this concept into pedagogical terminology, contributing to the improvement of national education systems, integrating special and general education systems in inclusive context. (Convention, 2006) (Declaration, 2006)

From this time begins the period of experimental search in the field of inclusive education, which is characterized by increased integration processes in education, a significant contribution to the promotion of them made progressive-minded foreign teachers and representatives of public organizations. The development of inclusive education as a research and practical direction has become relevant for the post-Soviet countries. The education provided for people with disabilities in Soviet society was implemented by isolation in special educational institutions (boarding schools, special schools), etc.

2. Inclusive education in post-Soviet countries

Only from the late 80s of the twentieth century the concept of inclusive society and inclusive education began to expand. The first inclusive educational institutions in Russia appeared at the turn of the 1980s – 1990s, but then inclusive schools operated without appropriate systems. At that time there was practically absence of legislation, the level of accessibility of the educational environment was extremely low. In Russia, the systemic implementation of inclusive education, enshrined in legislative acts, is occurring at a very slow rate. In the overwhelming majority of cases, the initiative in promoting integration ideas belonged to representatives of public organizations and parent associations.

Interesting is also the experience of Belarus, which started in the integration process contemporaneously with Russia in the late 80s of the twentieth century, achieved good success and continues to develop. In Ukraine, a differentiated system of special education began to establish in the middle of the 20th century.

The development of integration processes in post-Soviet countries was influent by the recognition of new values of education as a social system that creates conditions for human development and society. Nevertheless, one of the most acute problems in post-Soviet education is the weak system of implementing inclusive environment for young people with disabilities. Therefore, it is timely and important to study and analyze the inclusive education in detail, to consider its implementation taking into account the specifics of the national context. (Kukuev, 2010) (Luchkov, 1981)

3. Measures taken by the State for the development of inclusive education in Azerbaijan

Since the 90s of the twentieth century changes in the same area began in the education system of Azerbaijan. Some educational institutions of the country began working in the mode of integration (the creation of special



classes for children with developmental disabilities). Here it should be noted that during this period there was extremely increasing in the number of children with disabilities and orphans among refugees from the occupied territories of Nagorno-Karabakh and adjacent areas.

The educational reforms carried out in recent years in the Republic of Azerbaijan have made it possible to achieve significant success in inclusive education field. In the late 90s of the twentieth century started by National leader Heydar Aliyev changes in inclusive education development continue to improve and expand through various laws and programs by the leadership of Azerbaijan. Heydar Aliyev Foundation has made an invaluable contribution to implementation of these programs. The Foundation has conducted a whole range of measures to strengthen the material and technical and educational base for educational institutions and youth with disabilities.

It should be noted adopted by the Decree of the President of Azerbaijan Ilham Aliyev of December 14, 2017, "The State Program for the Development of Inclusive Education for Persons with Disabilities in the Azerbaijan Republic for 2018-2024". This Program indicates specific ways to improve and conceptual development of inclusive education in the country, such as: improving regulatory legislation to provide inclusive education for persons with disabilities at all levels of education; training of teachers and their involvement in additional education; creation of a database of people with disabilities related to inclusive education, etc. (State program on the development of inclusive education for people with disabilities in the Republic of Azerbaijan in 2018-2024, December 14, 2017) (State Strategy for the Development of Education in the Republic of Azerbaijan, October 24, 2013)

The result of the successful implementation of these programs is today's educational policy in our country. Sustainable development is observed at all levels of the educational system. Special attention is attracted by the continuous improvement and high level of education in universities, for which inclusion remains one of the priority directions of development. Here we can proudly mention the development of higher inclusive education at Azerbaijan State University of Economics (UNEC). UNEC has been studying for young people with disabilities for many years. Previously, for students who did not have the opportunity to attend university (for health reasons or because of inaccessible infrastructure), classes were held remotely. Nevertheless, in recent years, UNEC has been implementing a full-fledged including young people with disabilities into educational process.

In February 2018, at UNEC was organized an international conference: "Inclusive Higher Education: International Trends and UNEC Experience". After the conference, was arranged specialized training for university teaching staff in all areas of inclusive education. Leading experts from Azerbaijan, Russia, Turkey, Dubai, Ireland and Germany conducted the training.

Several important factors contribute to the successful implementation of inclusive education in educational institutions of the country. The first is the professional and personal readiness of teachers to implement the process of full inclusion. This process requires urgent improvement. Currently, within the framework of state projects and programs, the Ministry of Education of Azerbaijan has taken a number of measures to organize advanced training courses for secondary school teachers in inclusive area, various thematic trainings, and mandatory courses for leaders of inclusive educational institutions.

4. New concepts for universalization of inclusive education in world experience

The implementation of all these measures raised the level of professionalism of teachers of schools and universities in inclusion framework. Still teachers in inclusive groups are considered as special educators. There is still a difference between a teacher of common groups and a teacher of inclusive groups. It is important to note



that for a full-fledged inclusive education, especially higher education, there should be no difference in the teaching systems, and all teachers should be equally prepared for universal classes, the system of education should be universal.

Some foreign scientists researching (A.Meyer, D.Rose & D.Gordon; H. Macdonald & R.Teed, and others) point about the creation of a universal theoretical model for ensuring inclusion in an educational institution. According to their observations, the process of implementing inclusive education should be based on the flexibility of pedagogy in relation to all students. At the same time, the results of many years of research prove that it is impossible to create a unified model of inclusive education. However, it is important to understand the need to change educational methodologies. Pedagogical research confirms the need to adopt the flexibility of curriculum and teaching methods because of the diverse needs of students. ((Billingsley, 1991) (Boone, 2005) (Cole, 2005) (McDonald) (Meyer, 2014)

It should be emphasized, that the improvement of the education system, the improvement of pedagogical science leads to the universality of the education system as a whole. In early 1990s, the American specialists of the Center for Applied Technologies (CAST) drew attention to the fact that the concept of universal design of R. Mace is applicable to the field of education. The term “universal design” is proposed by the architect Ronald Mace as the definition of approaches to the design of any products and environment from the standpoint of aesthetics and affordable use by all, regardless of age, ability or status (Meyer, 2014) (Rose, 2002)

Using the elements of flexibility, inclusiveness and foresight of people's needs, as well as advanced scientific achievements, CAST specialists created a concept and technology of universal design for teaching Universal Design for Learning, which encourages educators to look for universal tools for students with different abilities.

The concept of "universal design" only enters the environment of education in our country. It is still accepted as an architectural term, i.e. accepted as “accessible environment”, “accessible infrastructure”. In 2006, after ratification the UN Convention on the Rights of Persons with Disabilities, the Republic of Azerbaijan accepted an international obligation to ensure the observance of the principles of universal design in the surrounding area, in the service sector, including education. The term “universal design” means the design of objects, furnishings, programs and services, designed to make them as suitable as possible for all people without the need for adaptation or special design. (Convention, 2006) (Declaration, 2006)

The principles of universal learning design allow creating the conditions for the actual introduction of students with a various educational needs into the process. For students with special needs, he provides the necessary ongoing support in the process of adoption the general curriculum: not only support by specialists in individual classes, but also every day, in each lesson, each teacher - due to the flexibility and universality of the curriculum. (Billingsley, 1991) (Boone, 2005) (McDonald)

Analyzing the research of many scientists, we can formulate a universal learning design as a “pedagogical design”. As a scientific discipline, the universal “Pedagogical Design” (Instructional Design), is engaged in the development of the most effective, rational and comfortable tactics, methods and systems of education. Discipline is extensive and is based on the following principles:

- 1) “Presentation” - development of training materials (instructional design), multifarious ways of presenting information and knowledge provide students various ways of obtaining them, the opportunity to choose.
- 2) “Demonstration” - development of the learning process itself, providing students the opportunities to choose different variants of expression and demonstrate what they know, (learning design).



3) “Participation” - development of an educational (training) environment, various ways of attracting attention, stimulating students' interest, and increasing motivation (environment design).

To support teachers prepare flexible curricula that meet the needs of all students, CAST has developed the Universal Design of Learning principles and technology. It should be noted, that the “Guide to Universal Design in Education” states that universal design of education is based on the achievements of cognitive science, on the laws of the brain. As you know, different parts of the brain play a specific role in the processing of information, its memorization, and subsequent use in various activities. (Mayer, 2011) (Meyer, 2014) (Milem, 2005) (Rose, 2002) (Rose D. H., 2006)

Precisely universality as the principle of educational design allows involving in the learning process not only students with disabilities, but also all, including the teachers themselves. Developing a curriculum and teaching materials based on universal design, the teacher analyzes what nuances a student may have during learning. The teacher should pay attention to several aspects simultaneously: the student’s physical needs through assistive technologies; cognitive, organizational, and motivational - through effective teaching. Versatility is achieved by providing all students with different educational needs with different alternatives, options within flexible training modules. It should be noted here, the difference of universal design from differentiated learning, which is based on the modification of ready-made "unified" programs based on an assessment of the individual needs of the student.

According to some foreign scientists (LS Vygotsky; E.McWilliam; R.Felder & R.Brent; J.Milem, J.Mitchell & A.Antonio), several factors play an important role in learning: the difference between social classes, different the level of understanding and perception, gender, freedom, sexuality, religiosity, ethnic origin and racial indicators, as well as personal characteristics. And all this requires special attention in the teaching process, especially in inclusive groups. The most important thing in improving the teaching process is the professionalism of teachers. For example, David Rose emphasizes that a professional teacher uses not only informational material, but also facial expressions, voice, body movement, etc. Universal design of learning involves applying of all methodologies of classical pedagogical science, as well as all modern methods. Here we are talking about digital educational materials, auxiliary information technologies. (McWilliam, 1999) (Milem, 2005) (Rose D. H., 2006) (Vygotsky, 1983)

5. Including innovations for universalization of education

In their works, foreign scientists Boone, R., & Higgins, K.; McWilliam, E. and the others, emphasize that information technologies can be used to personalize education and make it more interactive, that interactivity remains central to effective learning. The use of technology affects the motivation of students and teachers. It is important to correctly determine which media and which information technology is best suited for more efficient use.

Talking about the digital divide, it should be noted, that at present, when developing computers, mobile devices and various applications, mobility, sight and hearing limitations are necessarily taken into account. And most operating systems and devices have special features that professional teachers have to know for use in universal education design.

Already developed many services and applications that facilitate the learning process and, in general, life. Several of them should note: Windows and MacOSX systems have embedded modes that allow people with disabilities to use this system, use the Internet, etc., speech recognition and other parameters for people with disabilities. In the Apple system devices, are built in various technologies that allow people with vision, hearing,



and physical skills limitations to gain knowledge and develop. In the Google Chrome browser and in Google documents, are available image resizing, speaking and voice interface. (Boone, 2005) (Kukuev, 2010) (McWilliam, 1999) (Meyer, 2014)

There is an application for phones “Be my eyes”, whose job is that a user with visually impairment or not seeing, if he does not see something around, can direct the camera to the place where he wants to watch something, and the volunteer tell him online what's where. The application Yandex Talk on Android for people with hearing or speech impairment, it simplifies communication between people with and without disabilities.

"Tecla device" allows people with limited mobility to access a smartphone or tablet. The adaptive site “Online cinema for the blind” has applied technology that allows people with visual impairments to understand what is happening on the screen, in addition, the site has collected comments on what is happening, written in Braille. The Smooth service is the first service of building routes in the city with circumvention of obstacles, indispensable for people with limited mobility. The application "Soudofon" helps deaf and hard of hearing people in creating a comfortable communication environment. All of the above digital technologies and applications, if necessary, can be used by teachers in the learning process. This enriches the basis for improving the system of universal design in education. (Meyer, 2014) (Milem, 2005) (Rose D. &, 2002) (Rose D. H., 2006)

Conclusions

Tools are effective only when uses them correctly. We should not forget that all teaching materials and tools are effective only when the teacher uses them correctly. The main task in preparing classes using the principles of universal design is to provide students with the choice opportunity, think over alternative types of tasks and different ways of presenting materials, methods and forms of assessment, pace of work, etc. The implementation of the system of universal learning design allows solving many problems of the transition period, to pay attention to the peculiarities of students' personality development. Universal design in education improves the development of inclusive forms of education and professional competence of teachers.

At the end, I would like to reiterate that inclusive education is not only the physical introduction of students with disabilities into the learning process. Studying the numerous works of scientists in this field, we can formulate the following definition: “Inclusive education is a multifaceted pedagogical science, the fundamental basis of which is versatility, uniqueness, value of all students, designed to ensure the effective implementation and participation of every person, including people with disabilities contributing to their further full social engagement.

This is an advanced and innovative system of organization of the teaching process. This is such as arrange the educational process, which can be achieved, by improving pedagogical science, observing the principles of universal education design. These are new approaches that ensure the full understanding and acceptance of information by all students. These approaches take into account all the diversity, labor and aesthetic education, endowments and the individual characteristics of all students.

References

- Billingsley, B. C. (1991). Teacher's decisions to transfer from special to general education. *Journal of special Education*.
- Boone, R. &. (2005). Designing digital materials for students with disabilities. *In D*.



- Cole, V. S. (2005). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Convention, U. (2006). Plenary meeting of the UN General Assembly in New York. *Convention on the Rights of Persons with Disabilities*. New York: UN Convention.
- Declaration, U. (2006). Plenary meeting of the UN General Assembly. *Declaration on the Rights of Persons with Disabilities*. New York: UN Declaration.
- Karger, J. &. (2004). *Access to the general curriculum for students with disabilities: A brief legal integration*. Online document: <http://www.cast.org/ncacAccessToTheGeneralCurriculum> .
- Kukuev, A. S. (2010). Modern approaches in education. *International Journal of Experimental Education- № 3*.
- Luchkov, V. P. (1981). The value of L.S.Vygotsky's theory for psychology and defectology. *Moscow University Bulletin. Psychology*.
- Mayer, R. E. (2011). Does styles research have useful implications for educational practice? *Learning and Individual Differences*.
- McDonald, H. T. (n.d.). Interactive lectures. <http://serc.carleton.edu/introgeo/interactive.index.html> .
- McWilliam, E. (1999). Individuality in education. In D. Meadmore, B. Burnett and P. O'Brien (Eds) *Understanding Education: Contexts and Agendas for the New Millennium*. Sydney : Australia: Prentice Hall.
- Meyer, A. R. (2014). *MA: CAST Professional Publishing, an imprint of CAST*. Wakefield: Inc.Publishing.
- Milem, J. C. (2005). *Making Diversity Work on Campus: A Research-Based Perspective* . Association American Colleges and Universities.
- Rose, D. &. (2002). *Teaching every student in the digital age*. Alexandria: VA: ASCD. Available online at: <http://www.cast.org/> .
- Rose, D. H. (2006). Universal Design for Learning in Postsecondary Education. *Journal of Postsecondary Education and Disability (Vol.19)*.
- State program on the development of inclusive education for people with disabilities in the Republic of Azerbaijan in 2018-2024 . (December 14, 2017). Republic of Azerbaijan : Order of the President of the Republic of Azerbaijan .
- State Strategy for the Development of Education in the Republic of Azerbaijan . (October 24, 2013). Republic of Azerbaijan: Order of the President of the Republic of Azerbaijan.
- Vygotsky, L. (1983). *Development of a difficult child and his study, Vygotsky L.S. Collected Works: vol.6*. Moscow: Pedagogy.



Education, Employment and Poverty: Interdependence

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Abstract

The strategic goal of the economy development of each country is to ensure the required quality of life of the population. As in other countries, the ultimate objective of socio-economic development of Azerbaijan is to improve the well-being of the population and its quality of life. As one of the most important means of increasing the income of the population and reducing poverty in Azerbaijan, it is possible to increase the education of the population, because better education means an increase in the level of human capital, which should normally lead to an increase in incomes. At the same time, in the absence of good education of the society with poor social and income mobility (including intergenerational), low income or poverty may be intensified. If the increase in education of the population does not concern to the poor groups, then the increase in education does not lead to a decrease in poverty. This raises the issue of access to education for low-income groups of the population. At the same time, it is necessary to have a normal advantage of education, that is, to increase the income according to the level of education. The paper examines the issues of interdependence of education, poverty and employment from different views. The current state of the quality of education is analyzed. The paper focuses on the education and employment policy of the population, including the financing of education. Research methods such as systematic scientific analysis, logical generalization and statistical analysis are used during the study. The paper can be useful for the social policy of the Azerbaijani government and be considered important for local and foreign researchers.

Keywords: education, poverty, employment, financing of education.

Introduction

The systemic nature of the quality of life is expressed through a complex structure of relationships between its components - the standard of living, the quality of the environment, the quality of public health, the quality of working life, spiritual quality, the quality of education, which are in a certain economic, institutional, social and economic environment. Such system integrity allows to see the integrating, system-forming role of quality of life in a new way. The quality of life of the population is defined as a system of reproductive relations to meet the full range of needs and interests of people, manifested in various forms of activity, and in the very sense of life. The problem of quality of life covers the conditions, results and nature of work, the level of family well-being, institutional, social and environmental aspects of human existence (Əlirzayev Ə.Q. 2016).

One of the problems hindering the development of the well-being of the population and improving its quality of life is the poverty of the population. The poverty of the population largely determines the poor quality of life, as well as significantly limits the opportunities for business development, since the accumulation of population around the world is the main source of investment, giving impetus to the development of the economy. As a result of the fact that the population cannot provide themselves financially, there was a maximum distrust of both market agents and people to each other, which led to a reduction in the use of credit resources for development. It is impossible not to agree that poverty leads to a decrease in the quality of human capital, negatively affecting the level of health and education, the motivation of labour and social activity of the population, leads to an increase in social tension, thereby significantly impairing the opportunities and prospects for sustainable economic development. Poverty is a consequence of diverse and interrelated reasons, which are combined in the following groups: economic (unemployment, low wages, low productivity, lack of competitiveness of the industry), socio-medical (disability, old age, high levels of morbidity) and demographic (single-parent families, a large number of dependents in the family), socio-economic (low level of social guarantees), educational



qualification (low educational level, insufficient professional training), political (military conflict, forced migration), regional and geographical (uneven development of regions) (Əlirzayev Ə.Q. 2018).

From the above it can be concluded that the problem of poverty is universal, because in one form or another it is inherent in any economic system. At the same time, it should be noted that the severity of this problem in society varies greatly depending on the volume of product produced and accumulated wealth, productive capacity, methods of distribution of material goods and income. At present, the issues of poverty and income inequality research are becoming particularly relevant due to the fact that these problems are global in nature and require concerted action by all countries. The definition of poverty as inequality is the consideration of the problem through the property differentiation of social groups. The uneven distribution of wealth and services leads to inequality of economic well-being, which, in addition to a positive stimulus, has negative manifestations. The negative consequences of inequality include the formation of a standard of living in a part of the population that does not allow to satisfy even the basic economic needs to which belong: first, the needs for the most urgent benefits, first of all, in food, clothing, housing; second, the needs that are already familiar in this society (Mikayilov F.Q., 2016).

Poverty is a fundamental global problem facing the world community. It has a detrimental impact on the economy, social relations, politics, culture; it has a direct impact on the fundamental characteristics of any person's life, such as health and education. The strategic goal of economic development of any country is to ensure the quality of life of the population necessary and sufficient for expanded reproduction. The specifics of the economic development of Azerbaijan and other countries cannot be determined by the immediate needs of the economy and society, which is due to the peculiarities of the economic and historical development of the country for a long period of time and modern problems, as well as trends in world economic development. The ultimate goal of the socio-economic development of the country and its regions is to ensure the well-being of the population and improve its quality of life.

As the most important means of increasing the income of the population and reducing poverty in Azerbaijan, it can be increasing the education of the population, because higher education means an increase in the level of people, which should normally contribute to an increase in income. At the same time, in the absence of a good education of a society with poor social and income mobility (including intergenerational), low-level income or poverty can be strengthened. That is, low-income groups have the opportunity to increase the level of education of themselves and their children. If the increase in population education does not belong to the poor groups, then the increase in education does not lead to a decrease in poverty. This raises the issue of access to education for low-income groups of the population. Thus, it is necessary to have a normal benefit of education, that is, to increase the income corresponding to the level of education. Thus, as inequality in the field of income affects inequality in the field of education, there is also a counter-effect (Muradov A., Hasanli Y., Musayeva F. 2019).

The economic benefits of education, which was quite volatile in the 1990s, have now stabilized at a level similar to that of the countries of the market economy. This once again marks the value of investment in education as a means of ensuring an adequate standard of living, especially for the poor. But the economic benefit of education is not only accessibility, but also the quality of education. The quality of education is not so optimistic in comparison with the scope (Ağayev R., Mehtiyev A. 2010).

Level of education

Low level of education is an important factor of potential poverty. According to the results of the survey, the risk of poverty exposure of persons with only primary education is 20-60% higher than that of others on average across the country. On the contrary, the probability of persons with higher education being in poor condition is



lower than average. This ratio is observed more seriously in the countries of rich Eastern Europe with high educational benefits, but it also applies to the poorest countries in Central Asia (Poverty and Shared Prosperity 2018).

In the early stages of labour market policy, attention was focused on training, job creation measures and helping new businessmen. But these measures were usually not targeted. For example, if there was training for professions that were not in demand in the market, or if the newly recruited businessmen from the list of registered unemployed were offered support, the skills of doing business were not taught (Bağırzadə M. 2009).

Retraining

In most countries, great attention is paid to the retraining, which is in the first place among the programs related to the stimulation of employment. It is the next program that follows after the creation of small enterprises for unemployed people, taking into account the needs of the labour market, from the point of view of retraining – provision of employment to the degree of efficiency. During the transition period, the percentage of those employed in many countries rose. The survey conducted by the employment services shows that retraining is mainly aimed at young and well-educated people who already have more chances of finding a job. In contrast, access to retraining for elderly, low-educated and less fortunate persons in the labor market is a prerequisite. At the same time, experience shows that many of these individuals are not really interested in retraining and tend to prefer less responsible programs, subsidized jobs, or social work in the field of employment, or to receive social assistance (ILO, World Employment and Social Outlook 2018).

One of the factors of successful employment of participants after the completion of retraining courses – taking into account the needs of the enterprise – is the more active participation in retraining of employers who can get trained employees. In order to prevent dismissal for a low qualification, retraining, calculated to accelerate the provision of employment to persons employed or elsewhere, is also the most effective form of employment.

Education

The decline in the volume of funding and the decline in efficiency in education have affected the education opportunities of the poor population. The number of children admitted to compulsory primary school, especially secondary school, decreased in many CIS countries in the 1990s (Ağayev R., Mehtiyev A. 2010). The decrease in the number of students and the increase in the inequality of access to education have long-term effects: they disrupt the opportunities for future living with children from relatively poor families.

The level of education is correlated with the risk of belonging to the poor group of the family. For example, in families where the head of the family has only basic education, the probability of being poor is 20-60% higher than in average statistical families. The existence of primary technical and vocational education determines the probability of poverty to a moderate degree, the existence of secondary education reduces such a probability almost twice; higher education almost excludes the risk of poverty (Poverty and Shared Prosperity 2018).

Market conditions are not able to provide equal opportunities for Independent Education. The solution of this problem is the exceptional authority of the state, which is obliged to develop and implement a balancing strategy to ensure equal access to education (Hasanli Y.H., Shabanov S.A. 2018).

Poverty on inheritance

The assessment of the level of poverty carried out by the World Bank in different countries shows that the education period of children from poor families is the lowest. Even when they grow up, they do not spend extra time on education. As a result, their literacy level is the lowest (Poverty and Shared Prosperity 2018). There is dependence between the possibility of being poor and the personal level of a person. That is why parents with



low-level education can become vulnerable to poor welfare of their children. If measures are not taken to overcome this desperate situation, poverty can be "passed on" from generation to generation.

Financing

The main factor providing equal access to education is the policy of financing education. At present, education is facing serious financial difficulties, which will continue in the future, as expected in transition countries. It is expedient to finance education from a centralized state budget, since in this case, it is easier to ensure a fair distribution of education costs at the local level. In addition to financing education based on source taxes, financial mechanisms are also used, which provide for partial payment of education costs in all transition countries (World Development Report 2018).

There are some positive moments when education is paid (for example, by paying, parents have more control over the quality of education). However, the excessive propensity to this source of funding for education creates two risk factors. First, international studies have shown that the pay for education prevents children from getting education from poor families. Secondly, schools that require a fee for education, as a rule, are located in expensive areas, that is, in areas where families already have good access to education live. In this case, attention to local taxes and the fee-paying education in the financing of education will most likely lead to a deepening of the inequality of the territories (World Development Report 2018).

It is necessary to either prohibit the collection of "unofficial payments" (unofficial money collections), or to transfer them to the officially received payment area, as unofficial payments create a number of problems. Since these payments are "confidential", there is no legal basis to allocate subsidies for the purpose of helping the poor who cannot afford such expenses. Such payments create more cases of corruption. It is acquired not officially and is usually used inefficiently. In the best case, unofficial payments should be transferred to the official category and identified by relevant normative documents. At the same time, the documents should also include special provisions for children from poor regions or poor families. It is already accepted everywhere that the most effective option of funds allocated for education is the scheme "money moves after students" (i.e., financing on demand). Such a scheme, which is usually implemented in the field of higher education, is defined as "distribution of funds per capita". The scheme may also provide for the promotion of high-quality education or the efficient use of material and technical resources.

Findings

The effect of revenue differential on employment:

- people with a low level of education have a weaker economic activity, their chances of being among those engaged in the economy are also low, they work in areas with more low wages and have positions that are not high in the hierarchy;
- it is likely that the population from this category will belong to the categories of low-income groups. As a rule, the population with a high level of education can have a high level of employment and income.

The effect of education on income differential:

- The usefulness of education has increased in recent years compared to the mid-90s in Azerbaijan. There are significant differences in the earnings of people with different levels of education;
- the level of income per capita is significantly dependent on education and employment. Statistics show that among the low-income and especially poor population, the low level of education prevails (in comparison with the whole population), while the presence of higher education acts as a certain guarantor of material welfare (SSCAR, Living standards of the population and household research 2018);
- effective measures to reduce poverty - are investments in education.



The effect of revenue differential on education:

- differences in educational opportunities of children from different income-level families are significant;
- the differences are minimal at the level of primary and secondary general education, but significantly increase at the level of obtaining a full secondary education; (high incomes allow the child to study in a full secondary school or a private secondary school, while low incomes do not allow full-time, or allow full-time vocational school);
- the maximum difference in educational opportunities of children is observed at the level of obtaining higher education;
- poverty of the family is an extremely serious obstacle to the education of the child in higher school.

The effect of income differential on the quality of education of children:

- low-income families have lower education opportunities not only in terms of level, but also in terms of quality of education in secondary schools;
- therefore, it is not only due to the fact that admission to higher education is not possible for many, due to material costs, but also due to the fact that the student is not prepared enough quality;
- to increase access to higher education, it is still necessary to eliminate the isolation of families with different income levels at the stage of secondary education.

The effect of income differential on the educational opportunities of the elderly:

- there is an important demand to increase the education of the elderly in poor and low-income families;
- but the factor of material constraints acts as a serious obstacle on this path;
- opportunities for development are also poor because the poor population has low educational potential.

The effect of income differential on the educational expenditure of families:

- a significant part of Azerbaijani families already bear the costs of investing in the education of their children, which is the maximum for the level of higher education;
- these costs differ significantly in families of different income levels (in low-income people this is quite low), but if we compare them with per capita income, the share of education costs in low-income families is high enough (SSCAR, Income and expenses of the population 2018);
- it is likely that these families perceive education as an important resource of social and property mobility and are even ready to bear these costs by refusing to meet their other needs.

Conclusions

In general, the main factors in the fight against poverty and social marginalization are education and decent employment. People with a relatively high level of education are more likely to be engaged, and engaged people are more likely not to be on the verge of poverty. But it seems that education itself does not guarantee integration into the labour market, since the unemployment rate among people with secondary vocational and higher education remains quite large (MLSPPAR, Annual reports 2018).

Insufficient funding of the education sector, along with very low salaries of teachers, has led to further disruption of the infrastructure, a decrease in the quality of education and the disparity in the use of educational services among the population.

The main results of the study are that education is one of the most important factors of economic activity, employment of the population, increasing the level of income, as well as positions of employees. Thus, the increase in the level and quality of education of the population, the support and stimulation of this increase acts



as an important instrument of the policy of combating poverty. However, in addition to factors such as low level of education, unemployment or lack of work, family belonging to the poor is also significantly affected by the regional factor (the size of the labour market and national characteristics), a small town or rural housing, the number of family members, large families. (SSCAR, Poverty rate and poverty level 2018).

Secondly, low incomes of families (especially poor) significantly limit the educational opportunities of family members, both adults and children. This applies to vocational education, in part to primary and secondary school, more to full secondary and secondary vocational education, and in particular to higher education. The inequality of educational opportunities manifests itself in the distribution of family income according to the level of income, as well as in the proportion of young people of different ages from different families studying in one or another educational institution. But this inequality manifests itself in the quality of young people and adults from different income-level families, including access to both higher (first of all) and secondary vocational and general secondary education. Inequality takes place both at the level of educational claims and at the level of probability of actual inflows to one or another educational institution (SSCAR, Statistical indicators of Azerbaijan 2018). The actual costs of education, as well as the ability and readiness to pay for different forms of education of children and adults, are an important factor in the structure of the family budget. Social policy measures aimed at reducing the level of poverty and eliminating the inequality of education should cover all levels of education.

References

- Ağayev R., Mehtiyev A. (2010) Comparative study of secondary education system in Azerbaijan with South Caucasus, Baltic and Eastern Europe *Bakı: İqtisadi Təşəbbüslərə Yardım İB*.
- Bağırzadə M. (2009) Prospects of development of education sector and business interaction in Azerbaijan. *Bakı: ATİB/TİKA*.
- Əlirzayev Ə.Q. (2016) Economy of socio-cultural spheres: development and regulation. *Bakı: UNEC Nəşriyyatı*.
- Əlirzayev Ə.Q. (2018) Justification of social goals: conceptual approach. *Bakı: UNEC Elmi Xəbərləri İl 6, Cild 6*.
- ILO, World Employment and Social Outlook (2018): Trends. <https://www.ilo.org/global/research/global-reports/weso>
- Hasanli Y.H., Shabanov S.A. (2018) Estimation of impact of innovations on the quality of tertiary education. *Bakı: 6th International Conference on Control and Optimization with Industrial Applications (COIA): 185-187*.
- Mikayilov F.Q., (2016) Analysis of the current state of labour market and employment changes in the Azerbaijan Republic. *Bakı: İİETİ – elmi əsərlər toplusu: 247-251*.
- Mikayilov F.Q., (2016) The role of education in determining the level of poverty on the basis of multidimensional factors. *Sumqayıt: SDU – beynəlxalq elmi konfrans materialları: 301-309*.
- MLSPPAR, Annual reports (2018), <http://www.sosial.gov.az/>
- Muradov A., Hasanli Y., Musayeva F. (2019) Estimation of the education influence on the population income. *Bakı: 37th International Scientific Conference on Economic and Social Development: 593-602*.
- Poverty and Shared Prosperity (2018): Piecing Together the Poverty Puzzle. *Washington, DC: World Bank*. © World Bank. <https://openknowledge.worldbank.org/handle/10986/30418>
- SSCAR, Poverty rate and poverty level (2018), https://www.stat.gov.az/source/budget_households/az/5.4.xls
- SSCAR, Statistical indicators of Azerbaijan (2018), <https://www.stat.gov.az/menu/6/statistical-yearbooks/source/stat-yearbook>
- SSCAR, Living standards of the population and household research - income per country (per capita, manats per month) (2018), <https://www.stat.gov.az>



SSCAR, Income and expenses of the population (at current prices, millions manat) (2018),
<https://www.stat.gov.az>

World Development Report (2018): Learning to Realize Education's Promise. *Washington, DC: World Bank.* ©
World Bank. <https://openknowledge.worldbank.org/handle/10986/28340>



Effects of Globalization on Economic Development: Evidence from the G-20 Countries (1990-2017)

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Abstract

In this study, the effects of globalization on economic development in the G-20 countries, which are grouped as developed G-9 and developing G-10 according to their economic development levels, were econometrically analyzed for the period 1990-2017, by using panel data analysis methodology which pays regard to the extended Cobb-Douglas production function and cross-sectional dependence. In this respect, it is aimed to evaluate empirically the effect of the globalization process on the differentiation of long-term economic growth performance and development levels of countries in G-9 and G-10 groups, in the present study. As a result of the study, it was determined that globalization process had a significant effect on economic growth in G-9 group countries by the examination period while globalization process had no effect on economic growth in G-10 group countries. These results show that globalization level as well as physical-human capital accumulation and technological development have a significant effect on the differentiation of the long-term economic growth performances and development levels of developed G-9 and developing G-10 countries during the examination period.

Keywords: Economic Growth, Globalization Process, Cobb-Douglas Production Function, Cross-Sectional Dependence, Panel Data Analysis.

1. Introduction

World economies have been going through a globalization process that started upon the Bretton Woods System after the Second World War, developed with the liberalization of economic policies in the late 1970s and gradually became evident with the disintegration of the Soviet Union in the early 1990s. While the globalization levels of world economies have been increasing rapidly since these time periods, the accompanying positive and negative effects of the globalization process on economic, political and social issues are deepening. Indeed, the process of globalization, on the one hand, positively affect the economic growth performance (welfare level) of countries by increasing international trade, financial integration, international labor force movements, and technological developments, on the other hand, adversely affects the welfare level of countries by causing some deterioration in social and environmental standards. Therefore, at the present time, there is no consensus on the effects of the globalization process on economic growth and the relationships between the globalization process and welfare level are explained by two different approaches. According to the supporters of globalization, the process of globalization increases the welfare level of both developed and developing countries and decreases the differences between the development/income levels of the countries over time. However, according to the opponents of globalization, the globalization process facilitates the exploitation of the developing countries by the developed countries and increases the differences existing between the countries in terms of development/income level, over time. (Hayaloğlu et al. 2015: 120).

From this point forth, in the present study, it is aimed to empirically examine the effects of globalization on economic growth in G-20 countries classified as G-9 and G-10 countries according to their development levels.



For this purpose, in the study, economic, political and social effects of globalization process on the long-term economic growth performance and/or development of the countries in developed G-9 and developing G-10 groups are analyzed econometrically. In the second part of the study, the relevant literature is summarized and the position of the study in the literature is stated. In the third section, the scope of the study is drawn and the data set is explained. In the fourth chapter, the effects of globalization on economic development of the developed G-9 and developing G-10 countries were econometrically analyzed for the period 1990-2017 by using panel data analysis methodology which takes account of the extended Cobb-Douglas production function and cross-sectional dependence (CD). The study is completed with the fourth chapter in which findings of the study are discussed.

2. Literature Review

When the relevant literature is examined, in the empirical studies discussing the effects of globalization on economic growth, economic indicators¹ in the form of trade openness, foreign direct investments, average customs tariff rates, etc. or the indicators in the form of indexes derived by international organizations² are seen to be used as the representative of the level of globalization. While only the economic dimension of the globalization level is considered in the economic indicators, in the index-shaped indicators calculated with the use of various variables of different nature, the economic, political and social dimensions of the globalization level can be measured as a whole. For this reason, in the predominant part of the empirical studies investigating the effects of globalization on economic growth, index-shaped indicators covering the economic, political and social dimensions of globalization level are used.³ The KOF Globalization Index, calculated by the Swiss Economic Institute, is one of the most commonly used indicators. The fact that the KOF Globalization Index covers a wider time period and country compared to other indices, as well as, that it is updated on a regular basis, is decisive in this situation. The KOF Globalization Index, created by Dreher (2002) and Dreher et al. (2008), is calculated separately for the economic, political and social level of globalization by using 23 indicators of different nature (KOF Index of Globalization, 2016).⁴ In this context, when the relevant literature is examined, it is seen that empirical studies are generally conducted on developed and developing countries by using the KOF Globalization Index and within the scope of panel data analysis. In their studies within this scope, Dreher (2006), Chang and Lee (2010), Villaverde and Maza (2011), Ali and Imai (2013), Leita0 (2013), Gurgul and Lach (2014), Sincere and Jenatabadi (2014), Ying (2014), Suci et al. (2015), Zahonogo (2017) have reached to the conclusion that general, economic, political and social globalization has a positive (positive/statistically significant) effect on economic growth. On the other hand, in their studies within this scope, Samimi and Jenatabadi (2014), Ying (2014), Hayaloğlu et al. (2015), Chu et al. (2016) have determined that general, economic, political and social globalization has either negative (negative/statistically significant) effects or no effect on economic growth. In this study, the effects of economic, political and social globalization on economic growth are examined considering the differences in the level of development of G-20 countries. In this respect, it is considered that the findings of the present study conducted by taking into account the differences in the development level of the G-20 countries and the economic, political and social effects of the globalization process will contribute to the development of the theoretical and empirical literature on this subject.

¹For some of the studies within this scope, see Levine and Renelt (1992) and Stiglitz (2004).

²See, for example, Dreher (2006), Heshmati and Lee (2010), Chang et al., (2013).

³Some of these indicators representing globalization derived in the form of index can be listed as the Kearney Foreign Policy (KPF) Index, CSGR Globalisation Index (Centre for the Study of Globalisation and Regionalisation) and the New Globalization Index (NGI).

⁴For detailed information on the scope and calculation methods of the economic, political and social sub-indices of the KOF Globalization Index, see: KOF Index of Globalization, 2016.



3. The Scope and Data of the Study

In this part of the study, the effects of globalization on economic growth in G-20 countries are analyzed econometrically on an annual basis for the period 1990-2017. (The fact that the data obtained from the WB database is available for all G-20 countries in the 1990-2017 period uninterruptedly is influential in determining this period as the scope of the study). In addition, G-20 countries are included in econometric analyzes as developed G-9 and developing G-10 countries according to their economic development levels in order to investigate the effects of globalization on economic growth without any deviation. (Developed countries in the G-9 group are listed as USA, France, Germany, England, Canada, Italy, Australia, Japan and South Korea; developing countries in the G-10 group are listed as People's Republic of China, Russia, India, Brazil, Indonesia, Mexico, Argentina, Turkey, Saudi Arabia and South Africa.) In this respect, in the present study, it is aimed to evaluate empirically that in what extent the globalization process is effective on differentiation of long-term economic growth performance and development levels of countries in G-9 and G-10 groups. The variables used in the econometric analysis of the study and their sources are defined in Table 1.

Table 1. Identification of Variables Used in Analysis

Abbreviations for Variables	Definitions of Variables	Data Sources of Variables
RGDP	Real Gross Domestic Product (2010-USD).	(World Development Indicators-WDI-2019) The World Bank-WB
RGFI	Reel Gross Fixed Capital Investments (2010-USD).	
EL	Employed Labour Force	The Conference Board-Total Economy Database (TED-November 2018).
TFP	Total Factor Productivity	
KOFG	KOF General Globalization Index	Swiss Economic Institute (KOF Index of Globalization-2019).
KOFE	KOF Economic Globalization Index	
KOFP	KOF Political Globalization Index	
KOFS	KOF Social Globalization Index	

The annual growth rate values of the macroeconomic variables such as RGDP, RGFI, EL and TFP, and of the index-shaped variables used to represent the globalization process such as KOFG, KOFE, KOFP and KOFS which are defined in Table 1, are used in econometric analyses. Among the variables in Table 1, RGDP is taken as real GDP per capita (2010) values in US dollar (USD) prices for all G-20 countries from WB database. The RGFI variable was calculated, for all G-20 countries, in per capita values, by proportioning the real fixed capital investments series obtained from the WB database with 2010-USD prices to the mid-year total population series. Since Saudi Arabia's fixed capital investments series for the period 1990-1999 are not found in real form in the relevant database, the fixed capital investments series of this country in the period 1990-1999 are taken as nominal (USD) and converted into real form with the use of the country's GDP deflator. The EL was calculated for all G-20 countries by proportioning the number of employed labour force series obtained from the TED database to the mid-year total population series. TFP was taken from TED database for all G-20 countries as data calculated over annual growth rates. The data for the variables, KOFG, KOFE, KOFP and KOFS which are used to represent the general, economic, political and social level of the globalization process, respectively, were obtained from the relevant database for all G-20 countries.

4. Econometric Methods and Findings of the Study

The econometric models established in the study in order to identify the effects of globalization on the economic growth of the countries in the G-9 and G-10 groups are based on the extended Cobb-Douglas (CD) total production function. The CD total production function extended as so reflecting the impact of globalization and technological development level on economic growth can be expressed as in Equation 1:

$$Y_{it} = A_{it} K_{it}^{\alpha} L_{it}^{\tau} G_{it}^{\gamma} e^{\varepsilon_{it}} \quad (1)$$



Here, (*i*) and (*t*) show countries and time, respectively, while (ε_{it}) indicates errors. Of the terms in the production function, (Y_{it}) represents economic growth (RGDP), (A_{it}) technological development level (TFP), (K_{it}) physical capital accumulation (RGFI), (L_{it}) human capital accumulation (EL) and (G_{it}) the general, economic, political and social level of the globalization process (KOFG, KOFE, KOFI and KOFI). Besides, considering the development process of economic growth theories, the level of technological development in production function (A_{it}) is assumed to consist of TFP increments. It is accepted that the increase in TFP, which constitutes the portion of economic growth that cannot be explained by the changes in the physical quantities of production factors in the form of physical-human capital accumulation, indicates the production increases provided by solely technological development as "Solow Residual" (Solow, 1956: 85-91). Under these assumptions, by taking the natural logarithm of the CD total production function defined in Equation 1, the extended CD model to be estimated econometrically in the study can be arranged as follows:

$$Y_{it} = \beta_{it} + \alpha_{it}K_{it} + \tau_{it}L_{it} + \partial_{it}TFP_{it} + \gamma_{it}G_{it} + \varepsilon_{it} \quad (2)$$

However, in the study, since the general, economic, political and social level of the globalization process is represented by variables of different nature, alternative variations of the model defined in Equation 2 are estimated, in order to avoid multiple linear connection problems. In the study, the basic form of econometric models to be predicted for the period 1990-2017 using panel data analysis methodology that takes into account CD is shown in Equation 3:5 In the practical studies dealing with the potential determinants of economic growth, setting econometric models by extending the CD production function is frequently used. (For some of the studies within this scope, see: Levine and Renelt (1992), Rodrik (2012).

Model: $RGDP_{it} = \alpha_{it} + \beta_1RGFI_{it} + \beta_2EL_{it} + \beta_3TFP_{it} + \beta_4G_{it} + \varepsilon_{it} \quad (3)$

Since the level of globalization (*G*) in the study is represented by indicators such as COFG, COFE, KOFI and KOFI, 4 different variations of the basic model defined in Equation 3 are estimated in accordance with the above order. Of the terms shown in the model, (α) indicates the fixed parameter, (β) the slope parameter, (*i*) the cross-sectional dimension of the panel and (*t*) the time dimension of the panel. The models defined on G-9 and G-10 groups in the study are estimated in four main stages by using panel data analysis methodology considering CD. In this context, since the presence or absence of CD in the variables / in co-integration equations of the models directs the econometric methodology, in the first place, the presence of the CD in variables/co-integration equations in the models should be examined using the CD-LM tests, and the consecutive tests, which are necessary to use in the following stages of analyses, should be determined (Menyah et al., 2014: 390-91).

In the present study, the presence of CD in the variables/co-integration equations of the models defined on G-9 and G-10 groups is examined with the CD-LM_{adj} test statistics developed by Pesaran et al., (2008) and it is concluded that CD is present in the cross-sectional units in the G-9 and G-10 groups panel. (These results obtained in consequence that probability values of CD-LM_{adj} test statistics calculated for variables and co-integration equations of the defined models on the G-9 and G-10 groups are less than 0.01, can be seen in Table 2 presented in the Appendix). This demonstrates that the cross-sectional units in the variables and co-integration equations of models defined on countries in the G-9 and G-10 groups are interdependent and that it is necessary to use panel data analyses which takes into account this dependence (Baltagi, 2008: 10-12).

In this respect, the stationarity of the variables in the models defined on G-9 and G-10 groups is investigated by Cross-Sectionally Augmented Dickey-Fuller (CADF) panel unit root test developed by Pesaran (2007) considering CD and it is concluded that all variables in the models are stationary at level value. (Results showing

⁵Gauss 18.0 and Stata 15.0 econometrics software packages are used in the estimation of models defined in the study.



that CIPS statistics calculated at the level value for the variables in the models defined on G-9 and G-10 groups are greater than the critical table values by the absolute value at the significance level of 0.01 can be seen in the Table 3 presented in the Appendix).

Determining that the variables in all models defined on the G-9 and G-10 groups are of the same order (at the level value) and stable (integrated) means that there is along run equilibrium relationship (co-integration) between the model variables (Tari, 2010: 415). However, since all models described in the study contain CD, the long-term effects of the globalization process on economic growth are examined by the Panel AMG (Augmented Mean Group) estimator, which can be used in the presence of CD in the cross-sectional units of the panel and which was developed by Eberhardt and Bond (2009). When the findings in Table 4 presented in the appendix are examined in terms of independent variables which are the main determinants of economic growth, it is seen that the coefficients of RGFI, EL and TFP variables in all models defined on the countries in the G-9 and G-10 groups without exception are calculated as positive and statistically significant in accordance with the expectations. These findings show that in countries in the G-9 and G-10 groups physical-human capital accumulation and technological development level increases/developments have a positive/statistically significant effect on economic growth in the examination period. Whereas, when the findings in Table 4 are examined in terms of the independent variables KOFG, KOFE, KOFP and KOFS, which constitute the essence of the study and represent the globalization process, it is seen that the effects of the general, economic, political and social globalization level on the economic growth of the countries in the G-9 and G-10 groups differ significantly. In this context, as seen in Table 4, it is observed that the coefficients of KOFG, KOFE, KOFP and KOFS variables are calculated positively and statistically significant in G-9 group countries, and the coefficients of KOFG, KOFE, KOFP and KOFS variables in G-10 group countries are observed to be positive or negative and/or statistically insignificant. These findings indicate that the increases/developments which occur in the general, economic, political and social globalization level of the developed countries in the G-9 group have a positive and statistically significant effect on economic growth as of the examination period. However, the findings reveal that the increases/ developments occurring in the general, economic, political and social globalization level of the developing G-10 group countries have no effect on economic growth as of the examination period.

Finally, in the study, the long-term causal relationships between the level of globalization and the economic growth variables in the models defined on the G-9 and G-10 groups are analysed by panel causality test developed by Dumitrescu and Hurlin (DH-2012) taking CD into consideration and the results supporting the Panel AMG findings are obtained. When the findings in Table 5 presented in the appendix are examined, it is seen that there is a one-way causality relationship directed from general, economic, political and social globalization to economic growth in the G-9 group countries while it is understood that there is no causality relationship between general, economic, political and social globalization and economic growth in the G-10 group countries. (These results indicating that the probability values of the test statistics calculated under the relevant causality conditions ($Z_{N,T}^{HNC}$) are less than and more than 0.05, respectively, can be seen in Table 5 provided in the appendix).

5. Conclusion

In this study, the effects of globalization on economic growth are investigated econometrically for the period 1990-2017 in the G-20 countries, which are grouped as developed G-9 and developing G-10 countries according to their economic development levels. From this aspect, the present study aims to evaluate empirically the effect of globalization process on differentiation of long-term economic growth performance and development levels of countries in G-9 and G-10 groups. In this study, in order to determine the effects of the globalization process on the economic growth of G-9 and G-10 countries, econometric models created by extending the total production function of Cobb-Douglas are estimated within the framework of panel data analysis methodology which takes



into account the cross-sectional dependence. It is possible to summarize the results of the estimated models, which support the theoretical discussions and conform with the empirical studies in the literature, as follows:

In the study, it was found that the effects of physical-human capital accumulation and technological development level variables on economic growth were positive and statistically significant as of the examination period, in all models estimated for the countries in the G-9 and G-10 groups. These results show that in the countries in developed G-9 and developing G-10 groups, the long-term increases/developments in the physical-human capital accumulation and technological development level have a positive / statistically significant effect on the economic growth as of the examination period.

In contrast, in the study, in all estimated models, it was determined that the effects of the global, economic, political and social level of the globalization process on the economic growth of the countries in the G-9 and G-10 groups differ significantly. In this context, in all models estimated in the study, the impacts of the economic, political, and social levels on economic growth was found to be positive and statistically significant in the G-9 group countries and statistically insignificant in G-10 group countries. These results show that the increases/developments which occur in the general, economic, political and social globalization levels of the developed G-9 group countries have a positive and statistically significant effect on economic growth as of the examination period. On the other hand, the results reveal that the increases/developments which occur in the general, economic, political and social globalization level of developing G-10 group countries do not have any effect on the economic growth as of the examination period. In the study, the results regarding the long-term effects of the globalization process on the economic growth of the countries in the G-9 and G-10 groups are confirmed by the direction of the causality relationships between the variables. As a matter of fact, in the study, it was found that there is a one-way causality relationship directed from the general, economic, political and social globalization variables to the economic growth variable in the G-9 group, whereas there is no causal relationship between the variables in the G-10 group. These results reveal that while, in G-9 group countries, the changes/increases in general, economic, political and social globalization level cause changes/increases in economic growth, they do not cause changes/increases in economic growth in G-10 group countries.

All these results obtained from estimated models show that the main factors that make a difference regarding the economic growth of the countries in the developed G-9 and developing G-10 groups during the study period are the general, economic, political and social level of the globalization process. However, the results show that the globalization process is much more effective than the physical-human capital accumulation and technological development level in the differentiation of the long-term economic growth performances, in other words, the development levels of the developed G-9 and developing G-10 countries during the study period. In this context, in the developing countries of the G-10 group, policymakers need to develop and implement long-term policies to develop and strengthen the relations between economic, political and social globalization level and economic growth. In this way, it will be possible, for the developing countries in the G-10 group, to benefit more from the positive effects of economic, political and social globalization level on economic growth and welfare level and to reduce the differences between the development level of them and of the developed countries in the G-9 group, to a certain extent. Otherwise, it is possible to foresee from today that the differences between the countries in the G-9 and G-10 groups detected in terms of the effects of economic, political and social globalization on economic growth and the level of development in the study period can be similar in the near future. In addition to these, it is considered that working on various countries or groups of countries by considering differences in the level of development in future applied studies will contribute to the improvement of related literature.



References

- Ali, A. and K. S. Imai. (2013). Crisis, *Economic Integration and Growth Collapses in African Countries, Discussion Paper Series DP 2013-07*, Kobe: Research Institute for Economics and Business Administration, Kobe University.
- Baltagi, B. H. (2008). *Econometric Analysis of Panel Data*, 4th Edition, West Sussex, John Wiley & Sons.
- Chang, C.P. and Lee, C.C. (2010). Globalization and Growth: A Political Economy Analysis for OECD Countries. *Global Economic Review*, 39(2), 151-173.
- Chang, C.P., Berdiev, A.N. and Lee, C.C. (2013). Energy Exports, Globalization and Economic Growth: The Case of South Caucasus. *Economic Modelling*, 33, 333-346.
- Chu, Hsiao-Ping, Tsangyao Chang and Tagi Sagadi-Nejad; (2016). Globalization and Economic Growth Revisited: A Bootstrap Panel Causality Test. *Globalization and Economic Growth*, 1(1), 30-44.
- Dreher, A., N. Gaston, and Martens, P. (2008). *Measuring Globalization-Gauging its Consequences*. Springer, New York.
- Dreher, Axel (2006). Does Globalization Affect Growth? Evidence from a New Index of Globalization. *Applied Economics*, 38(10), 1091-1110.
- Dumitrescu, E. I. and Hurlin, C. (2012). Testing for Granger Non-Causality in Heterogeneous Panels. *Economic Modelling*, 29(4), 1450-1460.
- Eberhardt, M. and Bond, S. (2009). *Cross-Section Dependence in Nonstationary Panel Models: A Novel Estimator*. Munich Personal RePEc Archive, MPRA Paper No: 17692.
- Gurgul, Henryk and Lach, Lukasz (2014). Globalization and Economic Growth: Evidence from Two Decades of Transition in CEE *Economic Modelling*, 36, 99-107.
- Hayaloğlu, P., Kalaycı, C., and Artan, S. (2015). How does Globalization Affect Economic Growth Across Different Income Group Countries?. *Eskisehir Osmangazi University Journal of Economics and Administrative Sciences*, 10(1), 119-152.
- Heshmati, A. and Lee, S. (2010). The Relationship between Globalization, Economic Growth and Income Inequality. *Journal of Globalization Studies*, 1(2), 87-117.
- KOF KOF Index of Globalization, 2016, <http://globalization.kof.ethz.ch/> (Access to: 01.04.2019).
- Leitao, N. C. (2013). Cultural Globalization and Economic Growth. *The Romanian Economic Journal*, 47, 17-28.
- Levine R. and Renelt, D. (1992). A Sensitivity Analysis of Cross-country Growth Regressions. *The American Economic Review*, 82(4), 942-63.
- Menyah, K., Nazlioglu, S. and Wolde-Rufael, Y. (2014). Financial development, trade openness and economic growth in African countries: New insights from a panel causality approach. *Economic Modelling*, 37: 386-394.
- Pesaran, M. H. (2007). A Simple Panel UnitRoot Test in The Presence of Cross-Section Dependence. *Journal of Applied Econometrics*, 22(2), 265-312.
- Pesaran, M. H., Ullah, A. and Yamagata, T. (2008). A Bias-Adjusted LM Test of Error Cross-Section Independence. *The Econometrics Journal*, 11(1), 105-127.
- Rodrik, D. (2012). Why we learn nothing from regressing economic growth on policies. *Seoul Journal of Economics*, 25(2), 137-151.
- Samimi, P. and Jenatabadi, H. S. (2014). Globalization and Economic Growth: Empirical Evidence on the Role of Complementarities. *Globalization and Economic Growth*, 9(4), 1-7.
- Solow, R. M. (1956). A contribution to the theory of economic growth. *The Quarterly Journal of Economics*, 70(1), 65-94.
- Stiglitz, Joseph E. (2004). Globalization and Growth in Emerging Markets. *Journal of Policy Modeling*, 26, 465-484.
- Suci, Stannia Cahaya, Asmara, Alla and Mulatsih Sri. (2015). The Impact of Globalization on Economic Growth in ASEAN. *Bisnis and Birokrasi Journal* 22(2), 79-87.
- Tari, R. (2010). *Ekonometri (Econometrics)*. Kocaeli: Umuttepe Yayınları.
- Villaverde, J. and Maza, A. (2011). Globalization, Growth and Convergence, *World Economy*, 34(6), 952-971.
- Ying, Y.-H., Chang, K., and Lee, C.-H., (2014). The Impact of Globalization on Economic Growth, *Romanian Journal of Economic Forecasting*, 17(2), 25-34.
- Zahonogo, Pam; (2017). Globalization and Economic Growth in Developing Countries: Evidence from Sub-Saharan Africa. *The International Trade Journal*, 1-20.



Appendix:

Table 2. CD-LM_{adj} Test Results

Constant+Trend		G-9		G-10	
Variables	CD-LM _{adj} Test Statistics	L	CD-LM _{adj} Test Statistics	L	
RGDP	65.63*[0.000]	3	79.65*[0.000]	3	
RGFI	95.25*[0.000]	1	106.49*[0.000]	1	
EL	52.32*[0.000]	4	102.50*[0.000]	1	
TFP	69.71*[0.000]	3	106.20*[0.000]	1	
KOFG	82.13*[0.000]	2	64.06*[0.000]	3	
KOFE	71.29*[0.000]	3	94.26*[0.000]	2	
KOFP	62.74*[0.000]	3	65.96*[0.000]	2	
KOFS	79.86*[0.000]	2	87.74*[0.000]	2	
Model-1	4.62*[0.000]	2	3.02*[0.004]	2	
Model-2	5.52*[0.000]	2	2.62*[0.000]	2	
Model-3	3.25*[0.000]	2	2.55*[0.000]	2	
Model-4	4.21*[0.000]	2	2.96*[0.000]	2	

Notes: The sign “^a” in front of the test statistics indicates that CSD is present at 1 % significance level. The values in parentheses “[]” in the table indicate test statistics probabilities, while the column “L” indicates the optimal lag lengths determined by the Schwarz Information Criteria (SIC) for the variables.

Table 3. CIPS Panel Unit Root Test Results

Constant+Trend		G-9		G-10	
Variables	CIPS Test Statistics	L	CIPS Test Statistics	L	
	Level		Level		
RGDP	-3.63*	3	-3.02**	3	
RGFI	-3.22*	1	-3.66*	1	
EL	-2.95**	4	-3.29*	1	
TFP	-3.50*	3	-3.09**	1	
KOFG	-4.32*	2	-4.12*	3	
KOFE	-3.22*	3	-2.99**	2	
KOFP	-4.18*	2	-4.18*	2	
KOFS	-3.99*	2	-3.73*	2	
CIPS Critical Table Values	% 1		-3.15		
	% 5		-2.88		

Notes: The signs “^a” and “^b” in front of the test statistics indicate that the variables are stationary at 1 % and 5 % significance levels, respectively. See Table 2 for column “L” in the table. Critical table values were taken from Pesaran (2007) study according to T and N conditions.



Table 4. Long Term Coefficients: Panel AMG Test Results

G-9								
Models	Model-1		Model-2		Model-3		Model-4	
Variables	Coefficients	SE.	Coefficients	SE.	Coefficients	SE.	Coefficients	SE.
RGFI	0.209*	0.036 [0.000]	0.207*	0.037 [0.000]	0.201*	0.037 [0.000]	0.209*	0.036 [0.000]
EL	0.451*	0.121 [0.000]	0.442*	0.115 [0.000]	0.449*	0.120 [0.000]	0.442*	0.114 [0.000]
TFP	0.396**	0.179 [0.027]	0.475*	0.161 [0.003]	0.389**	0.185 [0.036]	0.410**	0.188 [0.029]
KOFG	0.169*	0.041 [0.000]	—	—	—	—	—	—
KOFE	—	—	0.049*	0.018 [0.006]	—	—	—	—
KOFP	—	—	—	—	0.072**	0.031 [0.044]	—	—
KOFS	—	—	—	—	—	—	0.196**	0.081 [0.015]
Constant (C)	1.085*	0.176 [0.000]	1.107*	0.201 [0.000]	1.191*	0.208 [0.000]	1.087*	0.178 [0.000]
G-10								
Models	Model-1		Model-2		Model-3		Model-4	
Variables	Coefficients	SE.	Coefficients	SE.	Coefficients	SE.	Coefficients	SE.
RGFI	0.113*	0.024 [0.000]	0.112*	0.025 [0.000]	0.113*	0.024 [0.000]	0.112*	0.024 [0.000]
EL	0.287**	0.139 [0.040]	0.331*	0.104 [0.001]	0.324*	0.106 [0.002]	0.361*	0.060 [0.000]
TFP	0.684*	0.079 [0.000]	0.673*	0.081 [0.000]	0.698*	0.076 [0.000]	0.695*	0.078 [0.000]
KOFG	-0.014	0.041 [0.732]	—	—	—	—	—	—
KOFE	—	—	-0.001	0.014 [0.974]	—	—	—	—
KOFP	—	—	—	—	-0.047	0.074 [0.526]	—	—
KOFS	—	—	—	—	—	—	0.059	0.039 [0.122]
Constant (C)	1.641*	0.449 [0.000]	1.646*	0.454 [0.000]	1.629*	0.432 [0.000]	1.531*	0.439 [0.000]

Notes: The signs “^{ca}” and “^{cb}” indicate that t-statistics of coefficients are significant according to significance level of 1 % and 5 %, respectively. The term “SE” in the table shows the standard errors of the coefficients and the probabilities of the values in the parentheses “[]”.

Table 5. DH Panel Causality Test Results

Test Statistics ($Z_{N,T}^{HNC}$)	G-9		G-10		L
	RGDP→KOFG	KOFG→RGDP	RGDP→KOFG	KOFG→RGDP	
	1.34[0.179]	2.18**[0.029]	0.75[0.452]	0.63[0.529]	
	RGDP→KOFE	KOFE→RGDP	RGDP→KOFE	KOFE→RGDP	
	0.11[0.917]	4.21**[0.000]	0.12[0.907]	0.89[0.369]	
	RGDP→KOFS	KOFS→RGDP	RGDP→KOFS	KOFS→RGDP	
	-1.29[0.194]	2.03**[0.042]	1.42[0.155]	0.76[0.448]	2
	RGDP→KOFP	KOFP→RGDP	RGDP→KOFP	KOFP→RGDP	
	-0.27[0.791]	2.35**[0.019]	0.36[0.721]	1.77[0.143]	

Notes: The signs “^{ca}” and “^{cb}” in front of the test statistics indicate that there is a causality relationship between the variables at the % 1 and % 5 significance level, respectively. The sign “→” in the table shows the direction of the causality relationship between variables. See Table 2 for column “L” and the values in the parentheses “[]”.



E-material Formatting App Improves Screen-Reading Process and Learning Abilities

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Abstract

Technologies use increase access to both knowledge and resources, provide flexibility to access it whenever and wherever possible. All types of distance, online and e-education give a wide range of benefits to reach a goal of providing equal education opportunities for everybody in all age groups, gender, and race. To make education equal and qualitative for persons with and without disabilities and special limitations it should be made on learner-centred design base. E-learning environment evolves, and it should become more personal design approach as it is realised that everyone needs a different education solution to meet satisfaction and high results. It is important on all levels.

Contemporary e-learning environment and materials consist of several dimensions. One of them is content such as vocabulary and syntax and content presentation such as typographic aspects. Part of them are font, font size, spacing and colours that are regulated by formatting parameters.

E-material formatting app by personalised text formatting has been developed. It consists of three level formatting approach: 1st level – general formatting, based on general parameters for e-materials, as general recommendations for everyone; 2nd level – first grade personalised formatting, based on users' three question-answer analysis as age-group, gender and existence of complains, simple personalisation; 3rd layer – second grade personalised formatting, request more detailed user information and analysis, gives deeper personalisation. App improves screen-reading abilities and comfort and learning processes. It is accomplished by more appropriate and personalized text formatting. That create and provide more effective e-materials as it increases visual perception, legibility, readability, reading comprehension, memorability of content. Learners can use e-materials longer time as screen-reading comfort is increased by adapted formatting. It is followed by improvement of individual educational results. Without comfort improvement, it is expected that near-work load and effect on vision will be reduced. As app have learning possibilities it supposes to reach great results, especially in the long term. Also, current app is designed as an adaptable app for different solutions and can be used in a wide range.

Keywords: app, contemporary e-learning environment, e-material formatting, equality of educational opportunity, personalised approach.

Introduction

Equal educational opportunities imply that educational services should be accessible to everyone respectful of their abilities and interests. (Aksu & Canturk 2015) It is important because the education significantly influences a persons' life and chances on market success. (Stanford encyclopaedia of philosophy 2017) Technologies and e-learning provides wider possibilities for everyone. To make education equal and qualitative for persons with and without disabilities and special limitations it should be made on learner-centred design base - allowing for flexibility in content according to a student's desire or need. (Gordon 2014)

All types of e-learning give huge amount of benefits to reach a goal to provide equal educational opportunities for everybody in all age groups, gender, and race. Benefits of e-learning improves the quality of learning and teaching, changes the approach of learning and teaching, better possibility of study process monitoring, provides more flexible learning, effectiveness of learning and teaching, increase the effectiveness of time, provide more learning opportunities, specific training possibilities, collaboration possibilities, and not limited with named ones. (Gaebel, et.al. 2014)

Contemporary e-learning environment is highly integrative and require not only flexibility in provided online functions, but also attributes of student-centred approach to learning. (Segrave & Holy 2003) It includes



engaging with all groups of learners taking in mind also visual, auditory and kinesthetic type of learners: Visual learners respond to images and graphics, Auditory learners prefer verbal presentations and Kinesthetic learners prefer a physical, hands-on approach. (Dawson 2014; State Government of Victoria, Australia 2016) E-learning paradigm and style can reach different learners more effectively by using appropriate technologies, environment, design. (FAO 2011) No matter how multi-faceted learning becomes with use of technology, no e-learning material or e-course can absolutely evade from including reading material. (Bates 2015)

E-materials, typographic aspects: Students must have access to a variety of high-quality digital learning materials and resources to support their learning. (US Office of educational technology 2017) Valuable and effective e-learning material must be prepared in good quality to reach educational goals. It is important to content such as vocabulary and syntax and its presentation such as typographic aspects like font, font size, spacing and colours that are regulated by formatting parameters. (Bringhurst 2005; Lynch & Horton 2016)

Unfortunately, currently there are no ambiguity in recommendations for e-materials formatting parameters.

Method

Methodology: Secondary data use of parameters, literature research, recommendation and app analysis

Findings

Literature research.

Around 15-20% of the world population has a language-based learning disability. (International Dyslexia Association 2016) Even more have complains about screen reading. Reading from a computer screen is different from printed media as reading on screen text is 25-30% slower than reading printed materials. (Ferrari & Short 2002; Nielsen 2000) Most computer users experience visual fatigue (VF) and digital eye strain (DES). Screen users can experience dry eye, eye strain, headaches, and encompasses a range of ocular and visual symptoms as blurry vision, for example. External symptoms as burning, irritation, sand feeling, tearing and dryness were noted to be closely related to dry eye, while internal symptoms of strain, ache and headache behind the eyes were linked to accommodative and/or binocular vision stress. Mostly symptoms are typically temporary, but they may be frequent and persistent. (Sheppard & Wolffsohn 2018)

There is a close connection between vision and learning as learning is accomplished through complex and interrelated processes, one of which is vision. (JOPS & AOA 1998) Good vision system not only allows to see information, but process information through visual system, which is key to the learning process. (Ajina & Bridge 2016) Approximately 80 percent of learning occurs visually - through eyes. (NCCAH and Vision Institute of Canada 2014)

Visual perception is the ability to perceive and interpret surroundings through the light in the visible spectrum reflected by the objects in the environment. (Interaction Design Foundation 2018) Visual perception involves sensory-motor system, the same as memory relay. (Vermeulen, et.al. 2008) Variety of results shown that perception and memory processes seem to overlap, (Riou, et. al. 2011) and perception influences memory processes. (Van Dantzig, et.al. 2008) Physical size difference during the perception process influenced response speed as a typical size difference led to faster reaction time. (Riou, et. al. 2011)

Legibility is the ability to recognise individual letters or words. (Lund 1999) It is the quality of type that affects the perceptibility of a word, line, or paragraph of printed matter. (Harper 2010) Readability is the optimum arrangement and layout of whole bodies of text. (Lund 1999) It is the property of type that affects the ease with which printed matter can be read for a sustained period. (Harper 2010)



Recognised measures of legibility or readability:

- Comprehension - is capable of being comprehended or understood; intelligible. (Harper 2010)
- speed of reading
- speed of perception
- fatigue in reading
- backtracking and other eye movements
- perceptibility at a distance
- perceptibility in peripheral vision
- memorability of content. (DuBay 2004)

Readability is thus affected by:

- x-height: The space between baseline and x-height is crucial for reading words, especially when consisting predominantly of lowercase letters.
- Horizontal spacing:
- Word spacing

Attributes can be categorized as influencing legibility in substantial ways:

- Explicit glyphs
- x-height
- Open counters. (Neumeier 2017)

In screen reading suitable fonts has an influence on students. (Hojjati & Muniandy 2014) On screen is advised to use clear sans serif fonts. (Baeza-Yates & Rello 2013) Serifs help the readability in printed material by supporting the reading flow but do the opposite on the web. On screen serifs can make more difficult to read the text as it can easily blur together. (Bernard, et.al. 2001) Sans serif fonts that are easily readable on screen include Arial, Helvetica, Trebuchet, Lucida Sans, and Verdana. (Mackare & Jansone 2017)

Already in 1998 is noted that size of typeface must be 14 or 16-point as it is significantly easier to read than smaller type. (Harris 1998) It is scientifically proven that a larger font size for reading is more favourable but there are very few studies that have studied the letter sizes, which are above 14 pt. (Mackare & Jansone 2017)

Bigger font size positively affect memory, decision-making and reasoning of reading text. (Rhodes, et.al. 2008; Alter & Oppenheimer 2009; Yue, et.al. 2013; Pieger, et.al. 2016) There are limits for size what are making positive affect. As Rods (Rhodes, et.al. 2008) study shows, 18-point size is better than 48pt size text.

Bigger line spacing is more preferred with respondents and are shown as more readable on screens. (Hojjati & Muniandy 2014) It is relevant to school age children and adults. (Katzir, et.al. 2013; Vered, et.al.2018) The reading speed and accuracy is affected by text size and spacing between lines. Comprehension is mostly affected by small font size. By decreasing font size affect reading rate and accuracy negatively in young children, same as comprehension (Katzir, et.al. 2013) and reading fluency. (Primor, et.al. 2011) Eyestrain decrees by using larger text size as 20pt and 28pt comparing to 12pt size and increase users satisfaction. 20pt size was a significant preferable to small texts. (Russell & Chaparro 2001) Increasing the minimum recommended print size from to 14 or 16 points would significantly increase ability to read fluently. (Rubin, et.al. 2006) Fixation duration analysis shown that 22pt size text and spacing 1.5 increase readability but comprehension score is higher by 18pt size and spacing 1.8. Subjective readability ratings increased by 18pt. (Rello, et.al. 2016) For people who were diagnosed dyslexia font size could be increased until 28pt. (Rello, et.al. 2013) In results, shorter reading durations are preferred more than longer ones as faster reading is related to more readable texts. (Williams, et.al. 2003)



As conclusion, font text size should be at least 14pt and have positive affect by increasing until 22pt size.

In theory and big part of research colours with greater contrast ratio in general lead to greater readability. (Hall & Hanna 2004) Optimal legibility requires black text on white coloured background. It is so-called positive text. Legibility suffers a lot from any other colour that make the text any lighter than pure black and decrease contrast. (Nielsen 2000) By testing other colour combinations results showed that the higher the luminance contrast was, the better was reading performance. (Shieh & Lin 2000) Luminance is like a brightness of a colour. (Hall & Hanna 2004)

Similarly, was found that combinations with positive polarity resulted in better performance. It is dark text on light background. It supports previous hypothesis and researches that as greater is the contrast between colour combinations as better is the performance. (Wang, et.al. 2003) For finding and searching tasks, performance was better for green text on the yellow background despite that one of the test combinations was used most preferable black on white. (Clarke 2002)

There is the fact that all parameters of colours and colours by themselves (as final tone people percept) on the screen and web cannot be well controlled, as they vary with the users browser and computer system. (Hall & Hanna 2004) In addition, the study found that the colour effect was often affected by other factors, such as font type. (Clarke 2002) In Hill and Scharff (1997) research three different background colours (light grey, dark grey, and white) with a black test were used. Surprisingly, they found better performance with the grey backgrounds than with the white background. (Hill & Scharff 1997) There are found a strong positive relationship between saturation (i.e., a colour's 'vividness') and arousal, while they controlled carefully for saturation in comparing colours (hues). (Valdez & Mehrabian 1995)

Different parameters of colour should be taken in consideration, to find best combination for education reasons- There are differences between purpose and types of content: educational and commercial, and what parameters should be used. It is a balance between all functional factors and aesthetic. And formatting parameters should be evaluated in combination of each other.

New development.

As there are is unambiguity of all parameters of text formatting and no developed clear recommendations for e-material formatting when there is a need of new developments for improvements and solution. (Mackare & Jansone 2017; Mackare & Jansone 2018)

Based on a wide literature research and users' preferences e-material formatting recommendations for 4 mine parameters are created for 9 age groups of users. Full age range is chosen as most active e-material use time for educational reasons and age groups are chosen based on vision and brain development and including natural age-related changes. Most age group have two alternatives possible formatting what can bring to the same improvements.

Recommendations are compromise solution from literature research background as suggested for screen reading because of improvements and users' preference survey research. Wider version of recommendations is developed and presented at table 1. This table contain recommendations for regular users without disabilities and specific limitations.

Table 1. General formatting recommendations for e-material body text parameters



Age group	Font	Font size	Space between lines	Text and background colours
3-5g	Verdana*	14pt*	2*	Black on white*
6-12g	Verdana	12pt	2	Black on white
	Arial	14pt	1,5	Grey on white
12-15g	Georgia	16pt	1,15	Black on white
	TNR	14pt	1,5	Grey on white
16-25g	Verdana	12pt	1,15	Black on white
	Arial	12pt	1,15	Grey on white
26-35g	Verdana	12pt	1,5	Black on white
	Arial	14pt	1,15	Grey on white
36-39g	Verdana	14pt	1,5	Black on white
	Arial	14pt	1,5	Grey on white
40-55g	Verdana	14pt	1,5	Black on white
	Arial	14pt	1,5	
55+g	Verdana	14pt	1,5	Black on white
	Arial	16pt	1,5	
65+g	Verdana	16pt	1,5	Black on white
	Arial	16pt	2	

Main idea of app is to help automatically (easy and fast) make more appropriate formatting of e-material for each user based on developed recommendations and make them more personalised and more effective by app learning process.

Currently it is three level formatting app prototype that is developed with tree level e-material formatting and personalization approach:

- 1st level – general formatting. It is based on developed methodology for e-materials as general parameters recommendations made by users age groups that are appropriate for everyone on computer screen;
- 2nd level – the first-grade personalised formatting. It is based on recommendations what are made based on users' three question-answer analysis as age-group, gender and existence of complains. It is simple personalisation. This is personalized formatting without detailed and more personalized suggestions. Application analyses data based on existing decision-tree scheme and generate propriety formatting style;
- 3rd level – the second-grade personalised formatting. It is based on extended users' information. That why on one hand, it requests more detailed user information and analysis of it. On the other hand, it gives more user-centric formatting possibilities and can provide higher comfort for user and better screen work improvement. Also, on this level application analyses data by existing decision-tree scheme and generate propriety formatting style.

In future, it is hoped to add 4th level as the third-grade personalised formatting with very intensive personalization what app learns to make from all data over time.



Results, Conclusions and Recommendations

Based on literature research and previous data, it is possible to make conclusions what improvement of primary parameters used for e-material formatting as font type, size, spacing and colours can meet improvements of screen-reading process and learning abilities by each e-material formatting level in app. As often it is shown, small is a big. An improvement of small part of all e-learning system can provide big change and improvement in all learning process.

App 1st level formatting gives primary comfort for computer screen users by using e-materials as text size is more appropriate to percept from computer screen on regular computer using distance. Decrease visual fatigue (VF) and digital eye strain (DES). Improves user's legibility and readability.

App 2nd level in addition of 1st level formatting improvements, increase perception abilities and reading speed. Improve learning and memory abilities.

App 3rd level in addition decrease personal complains and increase reading and learning abilities. As it is more personalised, it will decrease VF and DES even more and it can be believed what near work load consequences as accommodation system overload and myopia progress can be decreased.

In future, app 4th level as more personalised, will give even more benefits on all features. And by personalisation improvements in screen reading will reach as much people as users are.

All recommendations are based on literature research and previous studies. Next part of work is to approve benefits experimentally by users. As all previous studies are based on research and benefit of 1 or 2 parameters it is quite challenging to make complex evaluation but very necessary step.

References

- Ajina S, Bridge H. (2016) Blindsight and Unconscious Vision: What They Teach Us about the Human Visual System, *Neuroscientist* 23(5):529–541.
- Aksu T., Canturk G. (2015) Equal educational opportunities: the role of using technology in education, *International Journal of Academic Research in Progressive Education and Development* Oct 2015, Vol. 4, No. 4
- Alter, A. L., Oppenheimer, D. M. (2009) Uniting the tribes of fluency to form a metacognitive nation, *Pers. Soc. Psychol. Rev.* 13, p.219–235.
- Baeza-Yates R., Rello L. (2013) *Good Fonts for Dyslexia*, ASSETS, Bellevue, Washington, USA
- Bates, A.W. (2015) *Teaching in a Digital Age: Guidelines for Designing Teaching and Learning*, Vancouver BC
- Bernard L.M. , Liao C.L. , Chaparro B.S. , Chaparro A. (2001) Examining perceptions of online text size and typeface legibility for older males and females, *Proceedings of the 6th Annual International Conference on Industrial Engineering– Theory, Applications, and Practice*, November 18-20, 2001, San Francisco, CA, USA
- Bringhurst, R. (2005) *The Elements of Typographic Style, version 3.1*. Canada: Hartley & Marks, 2005. p. 32.
- Clarke J. (2002) *Building accessible web sites* (Boston, MA: New Riders)
- Dawson M. A., (2014) eLearning: Engaging All Groups of Learners, Jun 2014 (See: <https://blog.originlearning.com/elearning-engaging-all-groups-of-learners/>)
- DuBay W. H. (2004) The Principles of Readability, Article, August 2004 (https://www.researchgate.net/publication/228965813_The_Principles_of_Readability)
- Ferrari T., Short C. (2002) Legibility and readability. (Retrieved on 9 August 2013 from <http://bigital.com>)
- FAO (2011) E-learning methodologies - A guide for designing and developing e-learning courses, Food and Agriculture Organization of the United Nations



- Gaebel M., Kupriyanova V., Morais R., Colucci E. (2014) E-learning in european higher education institutions: results of a mapping survey, European University Association EUA
- Gordon N. (2014) Flexible Pedagogies: technology-enhanced learning, Report HEA project “Flexible Pedagogies: preparing for the future”
- Hall R.H., Hanna P. (2004) The impact of web page text-background colour combinations on readability, retention, aesthetics and behavioural intention, *Behavior & information technology* VOL. 23, NO. 3, p.183–195
- Harper D. (2010) Online etymology dictionary, (See: <https://www.dictionary.com>)
- Harris, W. (1998) Typefaces designed for the screen. (Retrieved on 9 August 2013 from <http://www.will-hariss.com/Verdana-Georgia>)
- Hill A. L., Scharff L. V. (1997) Readability of screen displays with various foreground/background color combinations, font styles, and font types, *Proceedings of the Eleventh National Conference on Undergraduate Research*, p. 742 – 746
- Hojjati N., Muniandy B. (2014) The Effects of Font Type and Spacing of Text for Online Readability and Performance, *Contemporary educational technology*, 5(2), p.161-174
- Interaction Design Foundation (2018) *The Basics of User Experience Design: A UX Design Book* by the Interaction Design Foundation, E-book, Denmark
- International Dyslexia Association (2016) Most Reading Difficulties Can Be Resolved or Diminished (See: <https://dyslexiaida.org/most-reading-difficulties-can-be-resolved-or-diminished/>)
- JOPS and AOA (1998) Vision, Learning and dyslexia, A Joint Organizational Policy Statement of the American Academy of Optometry and the American Optometric Association, USA
- Katzir T, Hershko S, Halamish V. (2013) The effect of font size on reading comprehension on second and fifth grade children: bigger is not always better, *PLoS One*. 8(9):e74061.
- Lund, O. (1999) Knowledge Construction in Typography: The case of legibility research and the legibility of sans serif typefaces. Thesis submitted for the degree of Doctor of Philosophy.
- Lynch P.J., Horton S. (2016) *Web Style Guide, 4th Edition: Foundations of User Experience Design*, Yale University Press
- Mackare K., Jansone A. (2017) Research of guidelines for designing e-study materials, Environment. Technology. Resources. *Proceedings of the International Scientific and Practical Conference*, 2, p.90-96.
- Mackare K., Jansone A. (2018) Recommended formatting parameters for e-study materials *IJLEL JOURNAL* Vol. 4 No 1 (2018)
- NCCAH and Vision Institute of Canada (2014) *Children and their vision*, Booklet, Canada
- Nielsen J. (2000) *Designing Web Usability: The Practice of Simplicity*, New Riders Publishing, Indianapolis, p. 420.
- Neumeier, J. (2017) Legibility in typeface design for screen interfaces, Master’s Thesis, Aalto University School of Arts
- Pieger, E., Mengelkamp, C., Bannert, M. (2016) Metacognitive judgments and disfluency – does disfluency lead to more accurate judgments, better control, and better performance? *Learn. Instr.* 44, 31–40.
- Primor, L., Pierce, M.E., Katzir, T. (2011) Predicting reading comprehension of narrative and expository texts among Hebrew-speaking readers with and without a reading disability, *Ann. of Dyslexia* Vol. 61, Issue 2, p.242–268.
- Rello L., Pielot M, Marcos M-C. (2016) Make it big!: The effect of font size and line spacing on online readability. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*, p.3637–3648. ACM
- Rello L., Pielot M, Marcos M-C., Carlini R. (2013) Size Matters (Spacing Not): 18 Points for a Dyslexic-friendly Wikipedia. In *Proceedings of the 10th International Cross-Disciplinary Conference on Web Accessibility (W4A '13)*. ACM, New York, NY, USA, Article 17, 4 pages.



- Rhodes, M. G., and Castel, A. D. (2008) Memory predictions are influenced by perceptual information: evidence for metacognitive illusions, *J. Exp. Psychol. Gen.* 137, p.615–625.
- Riou, B., Lesourd, M., Brunel, L. et al. (2011) Visual memory and visual perception: when memory improves visual search, *Memory & Cognition*, Vol.39, Issue 6, p.1094–1102
- Russell M.C., Chaparro B.S. (2001) Exploring effects of speed and font size with RSVP, Proceedings of the human factors and ergonomics society 45th annual meeting – 2001
- Rubin GS, Feely M, Perera S, Ekstrom K, Williamson E. (2006) The effect of font and line width on reading speed in people with mild to moderate vision loss, *Ophthalmic Physiol Opt.* 26(6):545–54.
- Segrave S., Holy D. (2003) Contemporary Learning Environments: Designing e-Learning for Education in the Professions, *Distance Education*, 24:1, p.7-24
- Sheppard A.L., Wolffsohn J.S. (2018) Digital eye strain: prevalence, measurement and amelioration, *BMJ Open Ophthalmology* 3:e000146.
- Shieh K., Lin C. (2000) Effects of screen type, ambient illumination, and color combination on vdt visual performance and subjective preference, *International Journal of Industrial Ergonomics*, 26, 527 – 536
- Stanford encyclopaedia of philosophy (2017) Equality of Educational Opportunity, (See: <https://plato.stanford.edu/entries/equal-ed-opportunity/>)
- State Government of Victoria, Australia (2016) MCHN Reflective Practice: Examples of learning styles, Australia (See: <https://www.education.vic.gov.au/documents/childhood/professionals/support/egsls.pdf>)
- US Office of educational technology (2017) Reimagining the Role of Technology in Education: 2017 National Education Technology Plan Update
- Valdez P., Mehrabian A. (1995) Effects of color on emotions, *Journal of Experimental Psychology*, 123, p.394 – 409.
- Van Dantzig, S., Pecher, D., Zeelenberg, R., & Barsalou, L. W. (2008). Perceptual processing affects conceptual processing, *Cognitive Science*, 32, p.579–590.
- Vered H., Hila N., Tami K. (2018) The Effect of Font Size on Children's Memory and Metamemory, *Frontiers in Psychology*, Vol.9, p.1577
- Vermeulen, N., Corneille, O., Niedenthal, P. M. (2008). Sensory load incurs conceptual processing costs, *Cognition*, 109, p.287–294.
- Wang A., Fang, J., Chen C. (2003) Effects of vdt leadingdisplay design on visual performance of users in handling static and dynamic display information dual-tasks, *International Journal of Industrial Ergonomics*, 32, p.93 – 104
- Williams S., Reiter E., Osman L. (2003) Experiments with discourse-level choices and readability. In Proc. ENLG '03), Budapest, Hungary, 2003
- Yue, C. L., Castel, A. D., Bjork, R. A. (2013) When disfluency is—and is not—a desirable difficulty: the influence of typeface clarity on metacognitive judgments and memory, *Mem. Cogn.* 41, p.229–241.



The Role of Tax in Sustainable Growth

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Abstract

Public expenditures are the expenditures made by the state to sustain its existence. Public spending has an important role to play in infrastructure investments and public goods and services. Public spending in a country's development is inevitable. In literature studies, it is seen that there is a relationship between the developed level of a country and the development of the tax system of that country. Implementation of a good tax system and determination of tax rates are important for taxpayers. The taxpayers' knowledge about the taxes they will pay shows their tax awareness. It is very important for a society to ensure that people who form a society are constantly informed about the taxes in their communities and that the collected taxes constitute the main source of public spending.

The purpose of our study is to measure whether taxes and public expenditures have an impact on the growth of the state's GDP. The hypothesis is that the increase in taxes and public expenditures will increase the GDP.

Introduction

Public expenditures and taxes constitute an intertwined composition. As a matter of fact, the state needs a source of financing in order to make public expenditures. The most important financing requirement of the state is tax. Taxes are unpaid and forced by the state, depending on the economic power of individuals are economic values. Excessive taxes affect the government spending more on public expenditures. The increase in public expenditures leads to the opening of new workplaces, the increase in employment, the increase in employment in the income of more people, this increases the purchasing power of people, the increase in purchasing power and increase in demand, this also increases the increase in production. All these developments increase the state's GDP. The expected result from this fall is the increase in taxes and the increase in public expenditures.

The data used in the study were obtained from the Azerbaijan Statistical Committee. The data after Azerbaijan gained independence from the region were used in our study. A total of 27 years of data covering the years 1992-2018 was used in our application.

Method

In this study, after the independence of the Republic of Azerbaijan again, the relationship of annual GDP with public expenditures and taxes is measured. Annual data were used to form the data set. The data set covers the years 1992-2018 and consists of a total of 27 observations. Data were obtained from Azerbaijan State Statistics Committee. The independent variable of the econometric model is public expenditures and taxes. In our study, the dependent variable was the GDP. After the cointegration test between variables, long and short term relationships were analyzed and interpreted. The Johansen Cointegration causality test was used to distinguish between causality among variables.

The data types used in time series models are generally not static. One of the important points to consider when a series is examined is whether the data is stationary or not. Empirical studies are made stationary by applying unit



root test to non-stationary time series. In general, the most commonly used unit root tests in these studies are Augmented Dickey Fuller (ADF), Philips-Perron and Dickey Fuller tests (Yurdakul, 2000, p.23). In addition, extended Dickey-Fuller (1981) and Phillips-Perron (1988) unit root tests are used to investigate stationarity. In our study, the series were stabilized by using Augmented Dickey Fuller and Philips-Perron tests.

Findings

The purpose of our study is to measure whether taxes and public expenditures have an impact on the growth of the state's GDP. The hypothesis is that the increase in taxes and public expenditures will increase the GDP. Public expenditures and taxes constitute an intertwined composition. As a matter of fact, the state needs a source of financing in order to make public expenditures. The most important financing requirement of the state is tax. Taxes are unpaid and forced by the state, depending on the economic power of individuals are economic values. Excessive taxes affect the government spending more on public expenditures.

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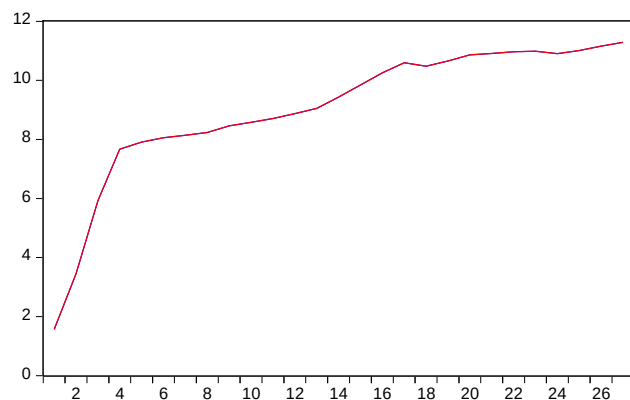
The tables below include the annual movements of GDP, Public Expenditure and the State Tax. It is possible to interpret the data according to the mobility in the table. Below is the graphic of each series.

There is an increasing value in the GDP series. In the other series, Expenditures and Taxes, there is an increasing trend over the years. The reason for this increase is the development of the state and consequently the increase in GDP and public expenditures. The reason for the increasing trend in taxes is that taxes are the most important financial source of the state. In other words, as long as public expenditures increase, so do taxes.

A series of tests should be used to measure whether the series are stationary, or to what degree they are stationary. Variables were included in the model by taking logarithms while analyzing. It is seen that our series have an increasing trend which is not stationary.

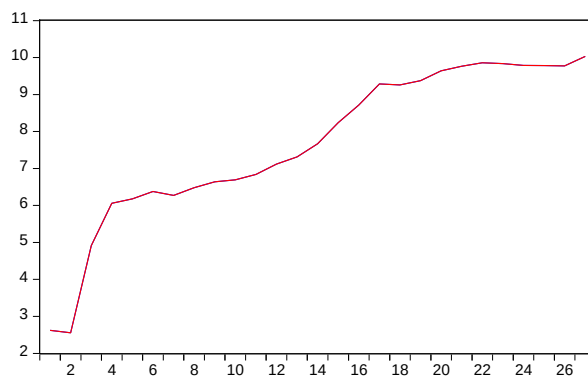
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The tables below include the annual movements of GDP, Public Expenditure and the State Tax. It is possible to interpret the data according to the mobility in the table. Below is the graphic of each series:



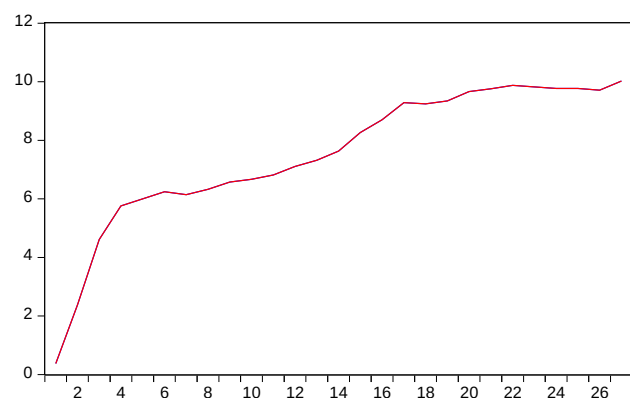
— LOGGSYIH
— C:\USERS\NIGAR\DOCUMENTS\JOHANSEN TEST.WF1::UNTITLED\LOGGSYIH

GDP:



— LOGHARCAMA
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Spending:



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Tax:						
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
LOGGSYIH(-1)	-0.130400	0.048531	-2.686915	0.0135		
D(LOGGSYIH(-1))	0.439893	0.138803	3.169190	0.0044		
C	1.350390	0.492481	2.742016	0.0119		
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
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D(LOGGSYIH(-1))	0.439893	0.138803	3.169190	0.0044		
C	1.350390	0.492481	2.742016	0.0119		
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-2.686627	NA	0.000316	0.454930	0.601195	0.495498
1	81.37877	141.2299	7.87e-07	-5.550302	-4.965241	-5.388031
2	96.73184	22.10842*	4.91e-07*	-6.058547*	-5.034692*	-5.774573*

There is an increasing value in the GDP series. In the other series, Expenditures and Taxes, there is an increasing trend over the years. The reason for this increase is the development of the state and consequently the increase in GDP and public expenditures. The reason for the increasing trend in taxes is that taxes are the most important financial source of the state. In other words, as long as public expenditures increase, so do taxes. A series of tests should be used to measure whether the series are stationary, or to what degree they are stationary. Variables were included in the model by taking logarithms while analyzing. It is seen that our series have an increasing trend which is not stationary.

Results, Conclusions and Recommendations

The aim of this study is to measure whether taxes and public expenditures have an impact on the growth of GDP. The hypothesis was that the increase in taxes and public expenditures would increase the GDP.

The data used in the study were obtained from Azerbaijan Statistical Committee. The data after Azerbaijan regained its independence were used in our study. A total of 27 years of data covering the period 1992-2018 was used in our analysis.

As a result of the study, an increasing value is seen in the GDP series. It is concluded that there is an increasing trend in other series, Expenditures and Taxes. The reason for this increase is the development of the state and the increase in GDP and public expenditures due to this development. The reason for the increasing trend in taxes is that taxes are the most important financial source of the state. In other words, as long as public expenditures increase, so does taxes.

In the present study, a series of tests were required to measure whether the series were stationary, or to what degree they were stationary. Variables were included in the model by taking logarithms while analyzing. As a result of the tests and analyzes, it is seen that our series have an increasing trend which is not stationary. In other words, an increase has been observed in all three values over the years. Another reason why it has an increasing trend is that Azerbaijan is among the developing countries. As a matter of fact, public spending is higher in developing countries. Excess public spending means that tax revenues are high.



References

- Baron, R. (1997). Economic/fiscal instruments: competitiveness issues related to carbon energy taxation, *OECD Working Paper*, (14).
- BEKMEZ, Selahattin ve Ferda NAKİPOĞLU; (2012), “Çevre Vergisi-Ekonomik Büyüme İkilemi”, *Gaziantep Üniversitesi Sosyal Bilimler Dergisi*, 11(3), ss. 641-658.
- Bergin, A., Fitz, J., Kearney, I. (2001). The Macro-economic effects of using fiscal instruments to reduce greenhouse gas emissions, environmental RTDI programme 2000-2006. *Wexford. Environmental Protection Agency*.
- Bierens, H. J. (1997). Testing the unit root with drift hypothesis against nonlinear trend stationarity, with an application to the US price level and interest rate. *Journal of Econometrics*, 81(1), 29-64.
- BOHLE, D. (2014), Post-socialist housing meets transnational finance: Foreign banks, mortgage lending, and the privatization of welfare in Hungary and Estonia, *Review of International Political Economy*, 21(4)
- CHEN, N. K., Chen, S. S., & Chou, Y. H. (2010). House prices, collateral constraint, and the asymmetric effect on consumption. *Journal of Housing Economics*, 19(1), 26-37.
- Donald, M., Toder E. J. (2014). Tax policy issues in designing a carbon tax. *American Economic Review: Papers and Proceedings*, (5), 563-568.
- FRANCIS, X. (1999). On the power of Dickey-Fuller tests against fractional alternatives. *Business Cycles: Durations, Dynamics, and Forecasting*, 258.
- Hall, S. G. (1986). An application of the granger & engle two-step estimation procedure to United Kingdom aggregate wage data. *Oxford Bulletin of Economics and Statistics*, 48(3), 229-239
- Johansen, S. (1995), Likelihood Based Inference in Cointegrated Vector Autoregressive Models, *Oxford University Press*, UK.



Some Aspects of the Czech Republic Security Policy and Proliferation of Nuclear and Chemical Weapons

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Abstract

The Czech Republic has a long tradition of protecting against weapons of mass destruction. It still works for the deepening and greater efficiency of processes and mechanisms of disarmament, arms control and non-proliferation of weapons of mass destruction and their means of delivery. It develops capabilities for its defence against the threat of chemical, biological, radiological and nuclear weapons of mass destruction. As part of the sharing of common risks and responsibilities within NATO, it continues to develop its armed forces' specialization in protection against weapons of mass destruction. Attention is also paid to the development of capabilities necessary for the effective protection of civilians, critical infrastructure and consequence management in humanitarian crisis and natural disasters. The article deals with selected international treaties, current agreements and international cooperation initiatives in the field of non-proliferation of nuclear and chemical weapons, in which the Czech Republic is represented through specific bodies or ministries. There is also a general description of the view and the specific military approach. The involvement of the Czech Ministry of Defence and the Czech Armed Forces in NATO structures enables to influence the strategic decision-making in the area of CBRN and thus support the current trends concerning forensic analysis, sampling of CBRN samples and response to new trends in the field of WMD elimination. For this purpose, they serve as a guarantor of maintaining the ability of conceptual, normative and educational activities for capabilities of the Czech Armed Forces, the NBC Defence Institute, University of Defence, and the JCBRN Defence COE.

Keywords: Non - proliferation of WMD; international cooperation; disarmament; disablement; control mechanism.

Introduction

„The Czech Republic works for the deepening and greater efficiency of processes and mechanisms of disarmament, arms control and non-proliferation of weapons of mass destruction and their means of delivery. In response to the adoption of the new NATO Strategic Concept and measures aimed to strengthen Article 5 of the Washington Treaty, the Czech Republic actively supports the development of NATO territorial missile defence and considers the options for its own involvement in this system. It develops capabilities for its defence against the threat of chemical, biological, radiological and nuclear weapons of mass destruction. As part of the sharing of common risks and responsibilities within NATO, it continues to develop its armed forces' specialization in protection against weapons of mass destruction“ (Security Strategy of the Czech Republic, 2015, para 60).

From the perspective of the international community, the issue of WMD non-proliferation is seen as one of the important areas needed to secure economic prosperity and political stability in a global context. Since its inception, the United Nations has considered arms constraints and versatile disarmament to be a key prerequisite for the preservation of peace and security in the world. Accession and enforcement of conventions and initiatives in this area have led to a reduction in tensions during the bipolar world and have contributed to the end of the Cold War. A slight reduction in tension in the 1990s was replaced by a re-emergence of security risks in the WMD proliferation. For example, the issue of short and medium range WMD missile launchers - the Intermediate-Range Nuclear Forces Treaty, concluded in 1987 between the US and the former Soviet Union, which can significantly change the power distribution of the forces and stability of the security environment. The suspension of the contract is very likely to result in the re-deployment of those missile launchers in the European



area and the means to eliminate them (Sektorová analýza, UoD, 2019). The Czech Republic has implemented international conventions and agreements and implemented treaties into national laws and regulations that provide the legal framework for the control and management of this hazardous material.

Method

The following methods of scientific research were used to achieve the research objective - content analysis of documents and texts, which included the studies of themes proliferation of nuclear and chemical weapons. The method of induction and deduction was used to formulate recommendations for practice in the Czech Armed Forces, in order to deduce and generalize recommendations and conclusions.

Findings

Nuclear weapons

They are combat devices using nuclear or thermonuclear reactions. A distinction is made between nuclear weapons with reduced levels of radioactivity and nuclear weapons with increased radioactivity (Názvoslovná norma, 2009). They are "real" weapons of mass destruction, a combination of great destructive power in the explosion itself and the subsequent radioactive contamination of the area, the electromagnetic pulse, and the pressure wave. The table 1 lists the 2018 nuclear weapons as published in SIPRI's regular annual report (SIPRI Yearbook 2018). All figures are approximate. The estimates presented here are based on public information and contain some uncertainties.

Table 1. World nuclear forces, January 2018

Country	Year of first nuclear test	Deployed warheads	Stored warheads	Other warheads	Total inventory
United States	1945	1 750	2 050	2 650	6 450
Russia	1949	1 600	2 750	2 500	6 850
United Kingdom	1952	120	95	–	215
France	1960	280	10	10	300
China	1964	–	280	–	280
India	1974	–	130–140	..	130–140
Pakistan	1998	–	140–150	..	140–150
Israel	..	–	80	..	80
North Korea	2006	–	..	(10–20)*	(10–20)*
Total		3 750	5 555	5 160	14 465

* there is no authoritative open-source evidence to confirm that North Korea has produced or deployed operational nuclear warheads.

..= not applicable or not available; – = zero; () = uncertain figure.

Chemical weapons

It is chemical ammunition or special equipment filled with chemical warfare agents or their precursors,¹ which can be used as a means of conducting combat operations due to their toxic properties and the amount used.

Chemical weapons include:

- Ammunition and other means of killing or causing harm to human or animal health, damage to plants or ecosystems when these effects result from the toxic properties of the toxic chemicals released from them

¹ A compound that participates in a chemical reaction that produces another compound.



- Any equipment specifically designed to use the said ammunition and other means (Názvoslovná norma, 2009).

There are many kinds of chemical weapons, as well as a number of ways and means to hit a target - by spraying, using a weather situation (wind, rain), but the most commonly used chemical ammunition. An example of use is a rocket (a missile such as a Scud) that carries a warhead with a chemical charge. Due to the great development of the chemical industry, a large number of substances have been developed that can be used militarily. According to OPCW's annual documents, stocks of these substances are disposed of in accordance with pre-established agreements. Table 2 gives an overview of the fulfillment of these commitments (OPCW. OPCW by the Numbers, on line).

Table 2. Chemical Weapons Disposal Overview, November 2018.

States that have declared chemical weapons	8 (Albania, India, Iraq, Libya, Russia, Syria, the United States and another State Party)
States that have completed destruction of declared chemical weapons	6 (Albania, India, Libya, Russia, Syria and another State Party)
World's declared stockpile of chemical agent that has been verifiably destroyed	96.99% or 70,128 metric tonnes from 72,304 metric tonnes
States that have declared chemical weapon production facilities	14 (Bosnia and Herzegovina, China, France, India, Iran, Iraq, Japan, Libya, Russia, Serbia, Syria, the United Kingdom, the United States of America and another State Party).
Chemical Weapons Production Facilities	Declared - 97 Destroyed – 74 Converted for peaceful purpose - 23

Proliferation

Proliferation is characterized as the spread of weapons of mass destruction, their carriers and internationally controlled items. The term “proliferation”, or more appropriately “non-proliferation”, refers to monitoring and disrupting activities aimed at obtaining strategic materials, devices, individual components, technologies and know-how that may be used for the development and production of WMDs (nuclear, chemical and biological), including their carriers (Security information service, online).

International approach to CBRN proliferation

It is an indisputable and often mentioned fact that the proliferation of WMD and their means of delivery is the greatest global security threat, especially in the context of increasing international terrorism, both group and individual. There is a general consensus within the international community on this issue, yet there are two main ideas of the cooperative security approach supported by the UN and the proliferative counterparts (non-proliferation) advocated mainly by the US administration.

Cooperative security approach

The principle is based on the legal regime, along with binding multilateral agreements and verification mechanisms is considered the best way to peace and stability. Stability and predictability in international relations is the primary goal of a sovereign state. The cooperative school of thinking is based on the fact that states and non-state actors can strive for WMD for the sake of prestige and status in order to put the world in the face of the fact that they now have to deal with these actors (North Korea, Iran). At the same time, he acknowledges that efforts to obtain WMD can result in illegal armaments. Despite this fact, the supporters of this



strategy are convinced that states will seek greater relative security through mutual commitments to limit their military capabilities.

Counter-proliferation strategy

This idea was first formulated by former US Secretary of Defence Les Aspin. Originally, this approach has been described as complementary to initiatives based on global non-proliferative regimes. However, at present, the concept of non-proliferation has almost exclusively focused on the proliferation policy line based on the general conclusion that control arms and disarmament regimes do little to contribute to international peace and security. The counter-proliferation strategy is based on selective US multilateralism, their friends and allies will flexibly use a mix of supplier export controls, deterrence, coercive diplomacy of global military superiority and preventive or pre-emptive use of military force.

There is also an opinion on the variant of the third concept, or the strategy of the middle way between cooperative and contra proliferation strategy. However, no such concept has yet been defined in such a way as to allow its comparative analysis to be carried out (Tůma, Nešření ZHN v kontextu aktuálních otázek, Brno, 2004).

NATO approach to CBRN proliferation

The Czech Republic is the NATO member since 1999. NATO's fundamental mission is to protect the freedom and security of all its members by political and military means, in accordance with the principles of the UN Charter. To achieve this, the Alliance also deals with WMD non-proliferation. This issue is embedded in the strategic concept of 2010 - Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization (NATO, Strategic Concept, 2010).

This document defines non-proliferation as follows: Armaments control, disarmament and non-proliferation contribute to peace, security and stability and should ensure security for all Alliance members. We will continue to play a role in strengthening arms control and in promoting the disarmament of both conventional weapons and weapons of mass destruction, as well as efforts to non-proliferation. The Alliance will continue to explore ways in which political means and military capabilities will contribute to international efforts to combat proliferation, including WMD.

A key document in this area is NATO's Comprehensive strategic policy for preventing the spread of weapons of mass destruction and defence from chemical, biological, radiological and nuclear (CBRN) threats. The idea is that NATO, with due respect for the Alliance's main military mission will actively seek to prevent the proliferation of weapons of mass destruction by state and non-state actors. Protect the Alliance in case this effort fails and be prepared for the renewal of the territory affected by the WMD or CBRN incident within its competence. Bringing added value through a comprehensive political, military and civilian approach, by supporting the development of Allies' capabilities to prevent or stop WMD trade, related materials and their means of delivery. These capabilities could be used in maritime operations aimed at limiting trade in these materials. In addition, the Alliance could bring its military capabilities into the process of detecting, identifying, tracking, acquisition or WMD development.

Conduct information operations to exclude, deter and refuse the proliferation of WMD. Launch intelligence exchange between allies and, where appropriate, partners, to produce information reports for WMD non-proliferation activities. The Alliance can also develop and support common operational standards, concepts, doctrines and tactics, as well as promote or facilitate relevant training and exercises in this area. Finally, NATO will strengthen its international reach to support the partners' related capabilities and strengthen the global response to potential WMD proliferation (NATO. NATO's Comprehensive, Strategic-Level Policy, 2009).



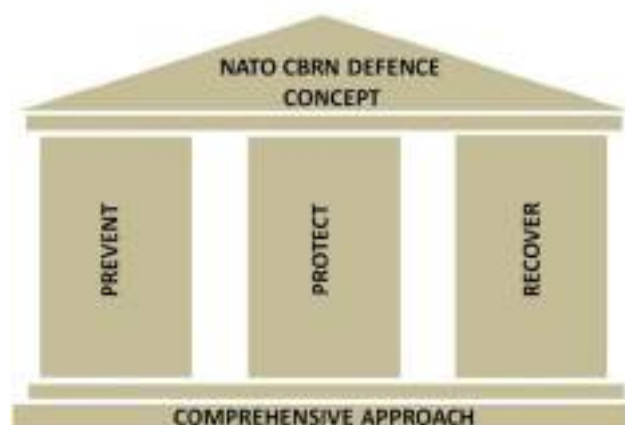
From the military point of view, the issue of non-proliferation of WMD is seen as a political area, and the Alliance is more inclined to the concept of preventing the proliferation of WMD. A new approach in this area was presented in 2018 - Weapons of Mass Destruction Disablement Functional Concept. This concept introduces a systematic and comprehensive approach to preventing the proliferation of weapons of mass destruction and defending against CBRN threats. WMD disablement is defined as operations aimed at systematically locating, securing, removing or destroying WMD, chemical weapons, CBRN equipment and material, or for research, development, testing, production and storage, including weapons, equipment of potential opponents.

The Comprehensive CBRN Defence Concept combines the required areas for CBRN protection, as well as relevant tasks associated with the three pillars of prevention, protection and recovery (Table 3) and further defines the capabilities needed to accomplish these tasks. It serves to assess how NATO can better combat WMD proliferation and dissemination, review current CBRN security protection requirements, including political input, and identify areas of progress and weaknesses.

Recognizes that NATO's defence planning process is an important mechanism by which NATO identifies capacity gaps and ensures that the Alliance can respond effectively to threats. Operational capabilities to discourage, detect, disrupt and prevent the proliferation of WMD and respond to CBRN crisis situations can make it difficult to spread WMD and improve NATO's attitude to effective response. The assessment contains practical recommendations that can be applied in order to address weaknesses in each of these areas (NATO. Lisbon Summit Declaration, 2010).

NATO's comprehensive CBRN protection concept creates a link between political-strategic level and tactical skill development. Last but not least, it will help to unify knowledge in the fields of doctrine, organization, training, material, standards and operations. The importance of this issue is also evidenced by the establishment of a new NATO Smart Defence project - MCDC Project countering weapons of mass destruction (CWMD). The project seeks to national develop a guide for multinational, multi-organizational cooperation toward reducing the threat from weapons of mass destruction (NATO. Status Report Smart Defence Projects and Proposals, Rev. 92, 2019).

Table 3. Comprehensive CBRN concept



While in the past the main aim of NATO's efforts to combat CBRN threats has been to focus on military forces and adversary assets, the current possible abuse of CBRN material and WMD terrorists, as well as CBRN events caused by industrial or natural disasters affecting the civilian population more intensively, today and in the future more makes it more vulnerable.



Vulnerability and risk analysis is needed to mitigate risks, showing weaknesses in the system and plans for adequate civilian response and providing possible military support to civilian authorities. The demands for civil-military cooperation have increased significantly.

Joint civil-military training and exercise strengthen relationships and collaboration in consequences and CBRN protection. Its level, scope and depth must be considered for each organization, at each stage of the operation, and at all levels of command. The mechanisms for deploying NATO's joint civil-military units, consolidating and planning civilian and military capabilities, including media operations, should be explored and trained (NATO, Strategic Concept, 2010).

To provide CBRN evidence, NATO expects to use a specialized chemical unit called the CBRN Multirole Exploitation and Reconnaissance Team (Zahradníček, Otfisal, Příspěvek chemického vojska k naplnění schopnosti sběru důkazů a forenziky, Vojenské rozhledy, 2016).

Czech Armed Forces and CBRN proliferation

At the Czech Armed Forces (CAF) and General Staff of the CAF the issue of non-proliferation of WMD is dealt with by the Czech Ministry of Defence (MoD) Force Development Division, Land Forces Department, specifically the chemical troops detachment. Especially by enforcing CBRN protection capability commitments, by implementing NATO standards for CBRN Defence and by joining NATO's CBRN doctrines. The involvement of the Czech Armed Forces in the Framework Nations Concept (FNC) process ensures the readiness of chemical units to extend their scope to the area of non-proliferation of WMD (Havel, Novotný, Možnosti rezortu obrany při prosazování FNC, Vojenské rozhledy, 2016).

The CAF has built and operates the Army Monitoring Network (ARMS), which is part of the state monitoring network. This network provides permanent control of the radiation situation in the Czech Republic. It is operated by the State Office for Nuclear Security (SÚJB). In co-operation with the SÚJB, the CAF conducts air monitoring service over the territory of the Czech Republic. By using this network and aerial monitoring, it is possible to monitor the possible movement of radioactive material in the Czech Republic.

Efforts to reduce nuclear weapons, ban on chemical and biological weapons and eliminate them lead to a stabilization of the security environment not only in Europe but also worldwide. The following findings and conclusions can be formulated from the analysis of the Czech Republic's involvement in WMD proliferation and from the results of the general staff course final work (FOKT, Nástroje bezpečnostní politiky k zamezení proliferace ZHN, 2019).

- The Czech Republic has fully fulfilled all the existing conventions in the field of non-proliferation of WMD and their carriers.
- The Czech Republic and the MoD participate in the promotion of WMD non-proliferation policy and participate as a member of the international community in all relevant arms control, disarmament and non-proliferation regimes.
- The main task for the MoD is primarily to ensure protection against the impacts of weapons of mass destruction, both in favor of its own and allied forces and as part of the integrated rescue system also for the benefit of the civilian population.
- Involvement of the MoD and the CAF in the process of non-proliferation is possible in the field of intelligence - INTEL support, development of capabilities according to NATO standards in the field of CBRN protection and involvement of CAF members in OPCW expert teams.



- The concept of non-proliferation of WMD has been approved within NATO. The task for the MoD and the CAF is its implementation into standards and regulations, including the modification of standards for chemical troops.
- Inter-ministerial cooperation on WMD non-proliferation is considered sufficient and good. Cooperation between state organizations such as SÚJB and MoD (CAF) is beginning to develop.
- Experience with the involvement of the CAF and the MoD in non-proliferation initiatives of WMD is perceived positively and reduces security threats and risks for the Czech Republic, leading to greater transparency and strengthening of trust. It is primarily a political-strategic level. At the operational-tactical level, involvement is only in the area of information and experience exchange.
- For the CAF, it is essential to maintain the knowledge and ability to protect against WMD impacts. By preparing commanders and staffs to implement information management in the planning process, demonstrating the functional capabilities of CBRN protection, ensure the ability of the CAF to allocate forces and resources to the NRF (within CJ CBRND TF, VJTF).
- Continue building mutual cooperation in the area of CBRN with other members of the Alliance using COE CBRN in Vyškov and the CBRN Department of the University of Defence, Brno.
- Expected contribution to the CAF may be to extend the knowledge of chemical troops members in the area of expertise and verification of established control regimes by engaging in OPCW expert teams and using the CAF's monitoring network for the SÚJB's needs to monitor the radiation situation in the Czech Republic.

The need for MoD and CAF involvement in WMD non-proliferation is characterized at the level of widespread cooperation with state authorities and implementation of NATO concepts into the standards and regulations in force in the CAF with an emphasis on preserving, developing and potentially extending the capabilities of chemical troops.

Results and Recommendations

The analysis of involvement of the Czech Republic and the Ministry of Defence in the process of non-proliferation of WMD, international cooperation in this area, the evaluation of structured interviews (FOKT, Nástroje bezpečnostní politiky k zamezení proliferace ZHN, 2019, pp 44-47) and the use of personal knowledge and experience in the area of CBRN results, generate the following conclusions and some recommendations for the responsible department bodies for further involvement in inter-ministerial and international non-proliferation cooperation WMD:

- Cooperate with the Czech Ministry of Foreign Affairs on WMD non-proliferation. Create the basis for negotiations and own participation in the NATO Military Committee "Committee on Proliferation" meeting.
- Promote international efforts in the field of non-proliferation, contracts, initiatives and programs presented by the UN, the EU, bilateral agreements and pacts. Support for foreign policy and security policy is clearly focused on compliance with binding treaties and arrangements for non-proliferation of WMD.
- Continue to implement NATO comprehensive chemical, biological, radiological, nuclear defence concept measures. This concept helps individual NATO member states to unify the approach to this issue. By introducing NATO standards into standards and regulations for the CAF, it will contribute to the possibility of separating chemical units into operations associated with combating illegal proliferation of WMD - and possibly also the possibility of coalition cooperation in special-purpose groups based on eNRF (CJ CBRN TF)
- Accomplish the implementation of the NATO concept of weapons of mass destruction disablement functional concept and participate in the preparation of the new NATO doctrine within IMS. Implementing these standards will enhance the deployment of chemical troops in NATO and EU operations on the same principle as in the previous paragraph.



- As the issue of non-proliferation of WMD is a matter of wider involvement of all stakeholders, it is necessary to include in the future in the strategic plans and operations a new category of military contributions for dealing with non-proliferation of WMD, the Operation on WMD Elimination.
- Acquisition of information is a cornerstone for successful operations in the field of non-proliferation of WMD; therefore it is necessary to create the prerequisites for successful interconnection of military intelligence, special forces and experts for the CBRN (Reachback and Fusion) in the conditions of the Czech Armed Forces with overlapping with NATO, OPCW etc. The merger of information, knowledge and technical solutions will contribute to finding the most appropriate method and procedure for dealing with WMD non-proliferation. An integral part of this process is NATO CBRN COE in Vyškov, which can provide a permanent advisory service in this area through the CBRN Reachback section.
- Part of the process of non-proliferation of WMD is also the control and monitoring activities of state administration bodies. It is therefore necessary to create conditions for deepening cooperation between the SÚJB, which is responsible for the area of control, and the Ministry of Defence. At the same time, the experience and expertise of the SÚJB staff can be used to improve the preparation and training of chemical troop's specialists in the area of detection and analysis.
- Continue to deepen cooperation with SÚJB in the area of radiation situation monitoring in the Czech Republic, using the means of the Army Radiation Monitoring Network. For the detection of illegal transfers of radioactive material through the territory of the Czech Republic, means of aerial radiation monitoring can be used.
- In the area of preparation and training of chemical units and in the preparation of chemical assurance of task forces, eNRF and HRF, focus on training and preparation of special teams dealing with detection and analysis of unknown substances using current capacities and capabilities of SIBCRA (Sampling and Identification of Biological, Chemical and Radiological Agents) teams and laboratory assemblies, continue efforts to achieve forensic collection and analysis capabilities for selected teams of 31st Regiment of Radiological, Chemical and Biological Protection at Liberec.
- The Framework Nations Concept (FNC), to which the CAF has already been involved, is a suitable means of engaging the CAF in the issue of WMD non-proliferation. In the area of CBRN, this initiative is mainly supported by the Federal Republic of Germany, the Czech Republic and Slovakia. This project helps and supports CBRN capability development, expands the capabilities of NATO member states to build and share CBRN capabilities.
- Last but not least, it is necessary to use the possibility of involvement of selected chemical troop's members in OPCW expert teams. This option will lead to new knowledge and experience in the field of information sharing, detection and analysis of chemicals.

Conclusions

The non-proliferation of weapons of mass destruction and the control of disarmament are seen by the international community as a fundamental aspect of peacekeeping, the development of global cooperation and the reduction of tensions between major economic and political actors. The Czech Republic as a signatory and founding member of the UN, an active member of the EU and NATO, approaches the issue of non-proliferation of WMD very responsibly. In the field of chemical weapons, the Czech Republic is a founding member of the OPCW and promotes the universalisation of the Convention, the consistent implementation of the provisions of the Convention in the national legislative systems of the Contracting Parties, the unification of rules and technical requirements for the declaration (export), import and production of chemicals and the effectiveness of OPCW activities, including the effectiveness and quality of inspections. Involvement of the Czech Republic, the Ministry of Defence and the Czech Armed Forces in international cooperation and in the NATO collective defence system is the basic starting point for ensuring the defence and security of the Czech Republic, which is enshrined in the 2017 Defence Strategy. This aspect makes it possible to develop and implement projects or activities in the area of CBRN, which would be technologically or resource intensive for individual states.



The involvement of the Czech Republic in NATO structures enables to influence the strategic decision-making in the area of CBRN and thus support the current trends concerning forensic analysis, sampling of CBRN samples and adoption of new trends in the field of WMD removal. By supporting disarmament and control mechanisms in the area of non-proliferation of WMD and their means of delivery, the Czech Republic and the Ministry of Defence fulfill its ambition in the area of CBRN as the leading nation. By adopting NATO concepts dealing with the issue of a comprehensive approach to the protection of WMD effects and incapacitating WMD. The cornerstone is laid on maintaining current capabilities and the development of specific capabilities of CBRN units in the field of detection and decontamination in line with the demands of coalition partners for joint defence. Attention will be paid to the development of capabilities necessary for the effective protection of civilians, critical infrastructure and consequence management in humanitarian crisis and natural disasters.

References

- CMSS. Bezpečnostní prostředí: Sektorová analýza a implikace pro ozbrojené síly ČR 2018. Divišová, V., Stojar, R., Kosárová D., Frank, L. Novotný, A. University of Defence, 2019 Brno. ISBN 978-80-7582-093-8.
- FOKT, Martin. Nástroje bezpečnostní politiky k zamezení proliferace zbraní hromadného ničení. Závěrečná práce 35. KGŠ. Brno, 2019. UO.
- HAVEL, Ondřej a Antonín NOVOTNÝ, Možnosti rezortu obrany při prosazování konceptu framework nations. *Vojenské rozhledy*, 2016, 25 (4), s. 3-17. ISSN 1210-3292 (print), 2336-2995 (on-line). Available at: <http://vojenskerozhledy.cz/kategorie/moznosti-resortu-obrany>
- Ministry of Foreign Affairs of the Czech Republic. Security Strategy of the Czech Republic. Prague, 2015. [2019-06-06] Available at: https://www.mzv.cz/public/2a/57/16/1375879_1259981_Security_Strategy_CZ_2015.pdf
- NATO. NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats. [2019-06-06] . Available at: https://www.nato.int/cps/en/natolive/official_texts_57218.htm
- NATO. Lisbon Summit Declaration. [2019-06-06] . Available at: https://www.nato.int/cps/en/natolive/official_texts_68828.htm#wmd
- NATO. Status Report Smart Defence Projects and Proposals, Rev. 92. Brussels, June 2019. Available at: SIS.
- NATO. Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization. [2019-06-06]. Available at: https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20120214_strategic-concept-2010-eng.pdf
- NN 30 0101. Chemické vojsko. Názvoslovná norma. 3. vyd. Praha: Ministerstvo obrany, 2009. 222 s. OPCW: OPCW by the Numbers. (on-line). Available at: <https://www.opcw.org/media-centre/opcw-numbers>
- Security information service. (on-line). [2019-06-06]. Available at: <https://www.bis.cz/proliferaion/>
- SIPRI: SIPRI Yearbook 2018 (on-line). [2019-06-06] Available at: <https://www.sipri.org/sites/default/files/SIPRIYB18c06.pdf>.
- TŮMA, Miroslav. Nešíření zbraní hromadného ničení v kontextu aktuálních otázek mezinárodní bezpečnosti a boje proti terorismu. 1. vydání. Brno: Ústav strategických studií Univerzity obrany, 2004. ISBN 80-85960-90-7.
- ZAHRADNÍČEK, Radim a Pavel OTŘÍSAL, Příspěvek chemického vojska k naplnění schopnosti sběru důkazů a forenziky, *Vojenské rozhledy*, 2016, roč. 25 (57), č.2, s. 109-117, ISSN 1210-3292 (tištěná verze), ISSN 2336-2995 (on-line). [2019-06-06] . Available at: <http://vojenskerozhledy.cz/kategorie/prispevek-chemickeho-vojska-k-naplneni-schopnosti-sberu-dukazu-a-forenziky>



Private Pension Funds in Albania, Their Development and Challenges

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Abstract

The problem of pensions, related in particular to the shortcomings of state scheme, are a real concern due to the increase of third age population and population's longevity, as well as the fall of birth rates. The development of private pension funds, initially as voluntary additional amounts, and then as compulsory, appears at a very significant moment for the pension system in Albania, by providing a more secure and safe alternative for the third age. Recently, there has been a growing trend on the part of individuals, but also financial institutions for new investment and saving alternatives, particularly voluntary pension market has been increasing over the last few years, both in assets and members. Based on this fact, the purpose of this article is to analyse the private pensions development in Albania, their influence on national economy, as well as challenges and problems that private pension funds face in our country. The paper methodology is based on theoretical framework, by analysing the legislation, different articles, and by using information from the Albanian Financial Supervisory Authority.

Keywords: private pension funds, public pension scheme, Voluntary Pension Fund, Professional Pension Fund, social security

Introduction

Currently in Albania there is a two-pillar pension system, the first which is compulsory and managed by state is known as PAYG system, and the third pillar which is private voluntary pension. Compared to European or other countries in the region, it is evident that in our country is missing the second pillar which is mandatory and privately managed, in which every individual gives a part of the social security contribution of the PAYG scheme to private pension funds. Central and Eastern European countries such as Bulgaria, Croatia, Hungary, Poland, Romania, Slovakia have a three-pillar pension system¹. Basic insurance systems are mandatory, while supplementary insurance schemes may be compulsory and / or voluntary. They are compulsory in cases where the state attributes a supplementary system, to provide an additional benefit to an employee due to his professional characteristics, hard work, preferential status, additional risks or other financial issues². A worker who wants to be included in the basic pension system pays a compulsory contribution of 10% of the gross salary during the time of his employment. In order to be part of supplementary system he has to add 5% more than basic system payment. When he retires, he will benefit from the basic system and the supplementary system too.

The pension system in Albania is not considered sustainable because employee contributions are not enough to cover the needs for pension payments³. The ratio between contributors and beneficiaries has worsen as a result of

¹ Gjini, Valbona (2013). Reformat e Pensioneve në Shqipëri.

² Bundo, Lito "Teoria dhe Praktika e Sigurimeve"2014

³ Hysa, Eglantina(2013) Qëndrueshmëria sociale dhe financiare e sistemit të pensioneve mbetet e rrezikuar.(fq. 39)



high unemployment rate and the increase of third age population. First, the scheme provides low benefits for some categories. Secondly, the pension scheme suffers from a high deficit. Thirdly, a large portion of working age population today doesn't pay the insurance due to high unemployment rate and informality. This has significantly influenced the relationship between contributors and beneficiaries, and implies that in the future many old people will not receive retirement pension. The empirical approaches and analyses argue that Albanian pension system is not sustainable. This means that pension system sustainability regarding finances has not been achieved yet, and moreover it reflects many difficulties in becoming sustainable. Rigorous review of hypothesis shows that pension scheme in Albania is not stable, and this implies that country's economy is at high risk.⁴ In Albania, it is often discussed about the low level of pensions despite the fact that government increases them time after time. It is the right time for Albanians to estimate that private pensions are the only option for pension real growth, from the point of view of incomes. The private pension scheme has created the right social environment for this important category that needs a quiet life without financial constraints and problems, like the rest of the population. This is the solution given to pension problem in Europe, and all over the world. Private Pension development in Albania is very effective due to the young age of population, 33-35 years old, compared to 48-50 years old in Europe. This is a good potential to benefit from their investments. In Albanian conditions it is necessary the development of voluntary pension funds, as these schemes help the country's economy by mobilizing population free money through long-term investments in financial instruments as state bonds which last 5, 7 and 10 years. However, due to many factors, the private voluntary pension market, cannot be considered as an important player in the Albanian economy. Here influences also the short time and culture for low-income pension funds with which these funds are faced. Here it is worth mentioning that this market in OECD countries represent about 20% of GDP⁵. Albania represents around 0.1% of GDP⁶, with only 3 private pension funds.

1. Private pension development in Albania, its impact on national economy

According to the law⁷ in Albania there are two kinds of Private Pension Funds:

- a) Voluntary Pension Fund which is Individual and represents the personal will
- b) Professional Pension Fund, which represents the Employer's will
 - Professional Pension Fund provided by the Employer
 - Joint Professional Pension Fund

Voluntary Pension Funds affect the economy by:

- a. Encouraging savings of employees or those with business activity
- b. Supporting the country's economic development
- c. Increasing the country's formalized capital

After 2009, voluntary pension funds have become part of Albanian financial market. There are three voluntary pension funds managed by three companies, respectively "Raiffeisen Invest" JSC, which manages the Voluntary Pension Fund "Raiffeisen", "SIGAL-Life Uniqa Group Austria", JSC, which manages the "Sigal" Voluntary Pension Fund, as well as "Credins Invest" JSC, which administrates the "Credins Pension" Voluntary Pension Fund.

⁴ Luzo, Drita (2017) Drejt Qëndrueshmërisë të Sistemit të Pensioneve në Shqipëri. (fq.104)

⁵ AMF "Sistemi i pensioneve vullnetare në Shqipëri - Zgjerimi i mbulimit". Konferencë Kombëtare II. 8 tetor 2015, Tiranë

⁶ OECD- PENSIONS FUNDS IN FIGURES, 2018

⁷ LIGJ Nr. 10 197, datë 10.12.2009 "PËR FONDET E PENSIONIT VULLNETAR"



The private pension market is relatively young. By the end of 2017, according to Financial Supervisory Authority publications, this market has about 20,000 insured members with 1,8 billion ALL assets (Contributions and profits). With a very important mission and growth rates, both in membership and assets, the numbers increase 1.4 to 1.5 times each year. The majority of voluntary pension funds members are females.

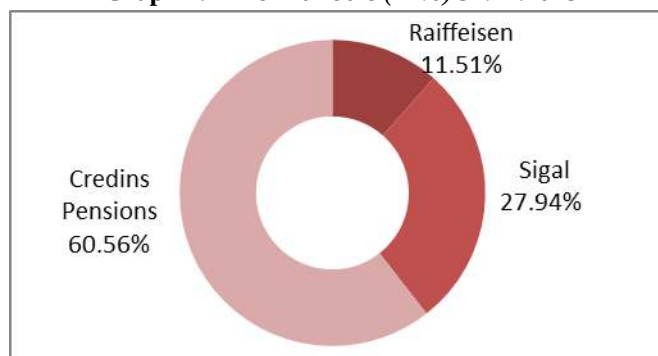
Table 1. Characteristics of PFs' market

Specification	Membership	
Period	31.12.2017	31.12.2018
PFs' members	20,947	25,298
females	11,201	13,422
males	9,746	11,876

Source: Financial Supervisory Authority

The number of members in voluntary pension fund market at the end of 2017 was 20,947, resulting in an increase of 3,630 members, or 20.96% compared to the end of 2016. From those 12,081 members belong to the Voluntary Pension Fund "Credins Pension", which occupy the greatest part of the market divided according to the number voluntary pension funds members, which is 57.67%. The second is the voluntary pension fund "Sigal" with 6,066 members or 28.96%, while the remaining 2,800 members or 13.37% belong to "Raiffeisen" Voluntary Pension Fund. The following chart shows the market division by the number of voluntary pension funds members expressed in percentage during 2018.

Graph 1. PFs' members (in %) 31.12.2018



Source: Financial Supervisory Authority

If we analyze the private pension fund members it results that most of them are individuals who through this scheme intend to have a pension before the retirement age and also receive a larger pension compared to what state scheme offers. The majority of this group are emigrants who are familiar with these schemes and are aware of their benefits. Employers are not interested in insuring their employees in professional pension funds, despite the involvement of this funds in overall pension system and fiscal improvements made by law. At present, about 5% of employees are insured with a supplementary private pension. In these schemes, it is important to emphasize the participation of banking institutions and companies with foreign investors.

Table 2. The division of voluntary pension fund members according to pension plans in 31.12.2017

Pension Funds	Members in individual pension plans	Members in professional pension plans
Sigal	1,234	4,832



Raiffeisen	884	1,916
Credins Pension	10,151	1,930
Total	12,269	8,678

Source: Financial Supervisory Authority

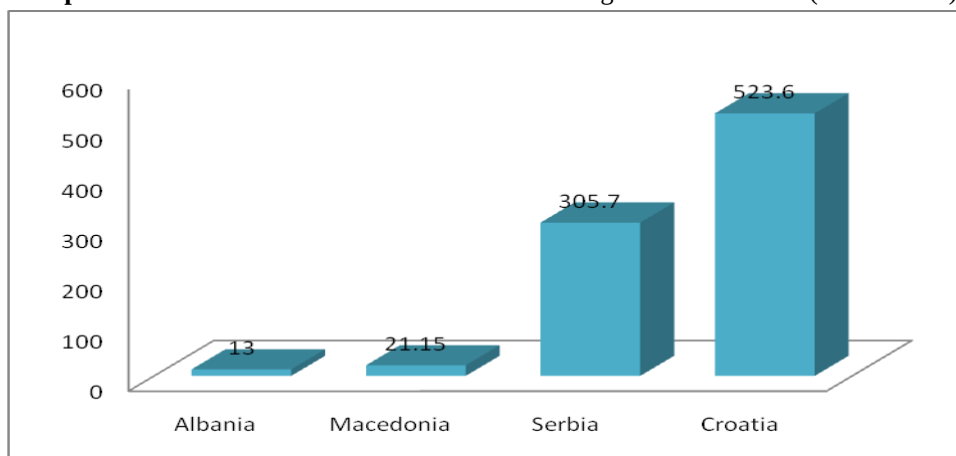
The private pension market, although with a small asset value, is an active participant in the capital market, investing mainly in government securities. But private pensions can have an extraordinary increase.

Table 3. Investment Portfolio of Voluntary Pension Funds

Types of investment instruments		Value (in ALL)
Period	31.12.2017	31.12.2018
Treasury bond and bills	1,641,760,907	2,210,160,129
of Which foreign	-	-
Deposits	-	-
Other investments	-	-
Total investment portfolio	1,641,760,907	2,210,160,129

Source: Financial Supervisory Authority

Graph 2. Net assets value of Pension Funds in the Region in 31.12.2017 (million euro)

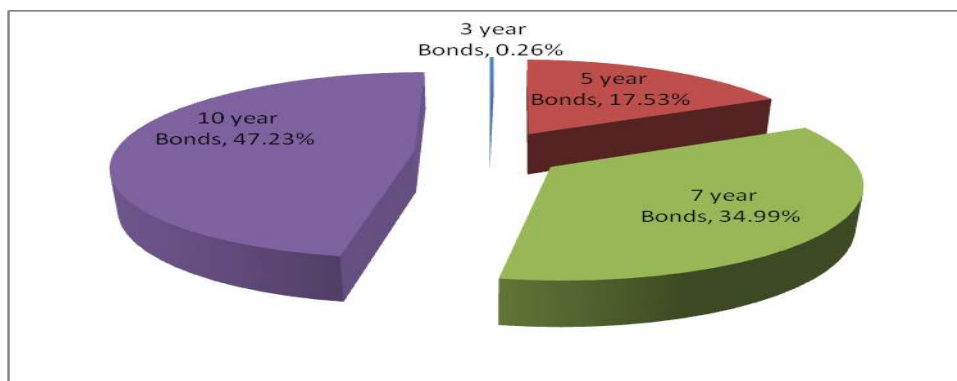


Source: Financial Supervisory Authority

We should admit that we are far from the developments of this market in Europe, and even other neighbor countries such as Macedonia, Kosovo, Croatia, Serbia. This means that it needs improvements in both legal and institutional level.

Actually, the assets of voluntary pension funds members are invested in state financial instruments, such as Albanian government bonds with a maturity of 5, 7 and 10 years, from which during 2017 was provided a satisfactory return of investment rate up to 7.1%.

Graph 3. The division according to investment maturity of voluntary pension funds market in 31.12.2017 (In %)



Source: Financial Supervisory Authority

The chart above shows that the majority of the investments are in 7-year Bonds and 10-year Bonds respectively 34.99% and 47.23%. This fact indicates that voluntary pension funds intend to build a portfolio consisting mainly of long-term securities.

2. Challenges and problems of private pension funds in Albania

Factors that influenced the current voluntary pension funds situation in Albania are:

- Low wage levels and high poverty levels in the country
- Unemployment level
- Lack of tradition and social culture in terms of voluntary pension funds
- Lack of trust, after 1997 Albanians can hardly trust the financial system
- Undeveloped financial system. In Albania, the banking system is more developed than the non-banking financial system.
- The influence of Albanian tradition, children are financially responsible for their old parents.

The main challenges of this market are:

People awareness, as saving for pension is not yet part of individual financial plans.

Incentives or fiscal facilities, because most Albanians do not have enough incomes.

The rapid population ageing - despite the fact that the Albanian population is still young compared to Europe, we must emphasize that it is rapidly ageing in comparison to the 1990s. This is a problem that will affect the private pension market.

In a survey conducted by INSTAT and AMF on private pensions, several challenges were pointed out regarding the provision of simple information to help employees and employers understand why private pensions are important and how they can bring real benefits.



Enterprises that do not provide professional pension funds in Albania are 2 052 which is 98.9% of the surveyed enterprises⁸.

According to the results of this survey, the elaboration of pension plan is considered as very expensive and does not bring any benefits to the enterprise. Another influencing factor are employees themselves, who are not interested in such schemes. Another factor is related to the trust toward financial institutions which offer and supervise such products.

Regarding enterprises that offer professional pension plans (1.1% of total surveyed enterprises), they have started to provide them from 2011 and on. Enterprises that offer pension plans exercise their activity in the district of Tirana, mainly in financial and insurance services. Most of the companies that provide pension plans are with foreign capital.

Conclusions and recommendations:

Due to high unemployment rate and informality, many individuals do not pay social security and will not benefit pension in the future.

Sustainable economic growth and high employment rates will promote a suitable environment for private pension funds.

People don't have sufficient information and knowledge about voluntary pension schemes. Private pension funds need to provide the necessary information to private sector employees.

The presence of informal economy negatively influences the expansion of private pension scheme.

The second pillar that is mandatory private pensions, are important for the development of the pension market. Only Albania, Serbia and Bosnia & Herzegovina lack the 2nd pillar. This would facilitate the public pension scheme and would positively influence the Albania's economic growth, as continuous increase in public pensions and their payments constitute a considerable amount of state spending.

Reference

- AMF (a). Raporti i Mbikëqyrjes 2017. Tiranë: Autoriteti i Mbikëqyrjes Financiare online: <http://www.amf.gov.al/>
- AMF (b). Qëndrimi i Ndërmarrjeve për Skemat e Pensioneve Private në Shqipëri: Analizë vrojtimi. Tiranë: Autoriteti i Mbikëqyrjes Financiare. online: <http://www.amf.gov.al/>
- AMF (c). "Sistemi i pensioneve vullnetare në Shqipëri - Zgjerimi i mbulimit". Konferencë Kombëtare II. 8 tetor 2015, Tiranë.
- AMF - "Zhvillimi i fondeve private të pensioneve në Shqipëri - një domosdoshmëri e kohës" Ermelinda Satka, Arja Plaku, Adriana Hasaj. Konferencë Kombëtare, 24 maj 2018 Tiranë.
- Bundo.Sh dhe Lito. G. "Teoria dhe Praktika e Sigurimeve" (2014),
- Gjini, Valbona (2013). *Reformat e Pensioneve në Shqipëri*. Disertacion: Fakulteti i Ekonomisë, Universiteti i Tiranës.

⁸ Analizë vrojtimi- "Qëndrimi i ndërmarrjeve për skemat e pensioneve private në Shqipëri" zhvilluar nga INSTAT dhe AMF



Hysa, Eglantina (2013). *Sigurimet shoqërore në Shqipëri: impakti i ndryshimeve demografike në zgjedhjet individuale* (Trajtim dhe Analizë Mikroekonomike). Disertacion: Fakulteti i Ekonomisë, Universiteti i Tiranës

LIGJ Nr. 10 197, datë 10.12.2009 “PËR FONDET E PENSIONIT VULLNETAR”

Luzo, Drita (2017). *Drejt Qëndrueshmërisë të Sistemit të Pensioneve në Shqipëri*. Disertacion: Fakulteti i Ekonomisë, Universiteti i Tiranës.

OECD- PENSIONS FUNDS IN FIGURES,2018



Quality - as the Main Result of the Company Management Process

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Abstract

In the modern world, in a tough competitive environment, the quality factor is most important. The process of quality management should have a finished look only after achieving high results in the field of quality. This article has conducted a study on quality management in a road-building enterprise, on identifying tools that influence the achievement of quality indicators of the main directions of an enterprise management system approach. A system of factors influencing product quality in four directions has been developed. The achieved results of the research can be used by enterprises in the course of determining the main directions of the organization's quality management process.

Keywords: quality, quality management, process efficiency, quality management, integrated indicator

Introduction

The first researcher of quality is considered the Greek philosopher Aristotle. Back in the IV century BC in his work "Metaphysics", he defined the quality as follows: "quality, on one hand, refers to the species difference of an entity; for example, a person is a certain qualitatively defined animal, because this animal is two-legged, and the horse is four-legged; and the circle is a certain qualitatively defined figure, for this figure is without corners, so the quality is the distinctive aspect of the essence" [1,p.215-216]. Quality is a complex category that can be viewed from different positions such as philosophical, social, technical, legal, economic [2,p.10-11] (see pic. 1.).

1.Method. Using the methods of observation, grouping, induction, deduction and classification, a system of factors influencing product quality in different directions was analyzed and developed.

2.Theory and analysis

One of the pressing issues of modern production process is product quality management. The study of quality and its impact on consumer demand all times were in the field of view of scientists. The history of the development of research in the field of quality in the times of Soviet Russia was accounted for the 20-30-th years of the last century. In 1921, the Central Labor Institute was created, headed by A. K. Gastev. The works of A. K. Gastev still have not lost their scientific and practical significance, and his book How to Work, being an introduction to science of the system of work organization, is of particular interest from the point of view of developing the theory and practice of quality management in Russia [3,p.24]. A significant contribution to the formation and development of the theory and practice of quality management was made by such domestic scientists as G. G. Azgaldov [4,p.79;5,p.20], O.K.Antonov, A.V.Glichyov [6,p.157], B.V.Gnedenko, K.I.Klimenko, M.I.Kruglov [7,p.84], D.S.Lvov, V.I.Sedov, V.I.Siskov, A.I.Subetto [8,p.18], V.P.Panov, D.L.Tomashevich, Ya.B.Shor [9,p.331], L.Ya.Shukhgalter and others [10,p.25]. One of the outstanding Russian



scientists who made a great contribution to the development of the theory and practice of quality management both in Russia and abroad was Vasily Vasilyevich Boytsov. He formulated the theoretical and methodological foundations of quality management of all elements of the life cycle of technical objects. V.Boytsov was at the origin of the creation of a modern domestic state standardization system, the reference base of the country, which occupies an important place in solving issues of production organization and improving product quality. From 1963 to 1984 he headed the State Standard of the USSR. His scientific developments were reflected in numerous publications (“Problems of automation and mechanization of small-scale production”, “Complex normalization of elements of the production process”, “Engineering methods for quality assurance in mechanical engineering” and others). In the Soviet Union, a schematic diagram of the mechanism for managing the quality of products was developed at AUSRIS (All-Union Scientific Research Institute of Standardization) Glicev and M.P. Babin in the second half of the 1960s [11,p.183]. Simultaneously with the concept of the mechanism of product quality control in the 1960s, a model was introduced on the pages of the Russian translation of a brochure by Dutch experts J. Ettinger, J. Sittig, later called the “quality loop”. Nowadays, other approaches to the system quality issues solution proposed by quality specialists in different years, currently referred to as “patriarchs” or “mentors” in quality - J. Juran[12,p.113]., A. Feigenbaum [13,p.29], Chris Felix Brandon, Robert I. Cole, Tito Conti, Jens J. Dulgaard, Edward Fuchs, Soo Mi Pak Dalgaard, Yoshio Kondo, Gregory Watson, William Edwards Deming[14,p.139]., Schuhart Walter Andrew[15,p.45]., etc.

Currently, the concept of "quality" is a complex indicator. The quality management process has become an integrated systems approach.

Today, the first step towards the integration of quality management systems into integrated enterprise management systems has become the formalization of the body of knowledge in the field of quality and the complex of methods and means of its provision. In the future, it is expected to use TQM models and ISO 9000: 2000 standards as the basis for the creation of integrated management systems, taking into account the specific features of a particular enterprise. But for the organization of effective quality management, it is necessary to follow four basic procedures:

1. quality planning;
2. quality assurance;
3. quality control;
4. quality improvement.

Quality planning is an action involving the definition of the necessary characteristics of the object and the establishment of their target values. Quality management calls such actions the setting of quality objectives. Also, quality planning includes defining the processes and resources needed to achieve goals.

Quality assurance is a systematic (regular) activity, through which you can fulfill the established requirements. It includes works on production, management, material support, maintenance, etc.

Quality control is an activity to assess the compliance of a control object with the established requirements. Assessment activities may include measurements, tests, observations, monitoring, verification, calibration, and other measures that result in a comparison of the values of the observed characteristics with the specified ones.

Quality improvement is the implementation of actions by which you can increase the ability of the organization to meet the requirements for the object. Under the notion of “object”, quality management considers products, processes, a management system and the organization as a whole [16].



In order to determine the effectiveness of the formed quality management system, it is possible to combine the main components into the following groups (see pic.2):

1. The quality of the system of planning, analysis and control;
2. The quality of the organization of the production process;
3. The quality of process management;
4. The quality of the final product and the positioning of the company.

Let's consider and analyze in detail the quality management of each of the selected groups. The quality of the planning system depends on the following factors: the reliability of the initial information, the time spent on planning, the qualifications and skills of the workers. What is the weak link in this top three? Why is it considered that quality planning in companies is lame? Maybe the problem is in the principles of planning, and maybe in the management of the planning process itself. According to my numerous observations, often the management of the enterprise sees a problem in the workers involved in planning, i.e. question the qualifications, abilities and competencies of the performers themselves. I disagree with this, for the simple reason that not all performers can be unqualified, this calls into question the quality of the work of the personnel management service. Sometimes executors do not have specific final source data and are limited by the time for processing this information. The reason for improper planning is incorrect formulation of tasks, poor quality management of the planning process, and lack of specificity in decision making.

Analyzing the effectiveness of processes is even harder to assess. Why the results of the analysis may be poor quality? Because the analyzed data is outdated, not true, the analysis is late. The collection of necessary information is often lost in the segment - the administration of the building management, it is possible that it is falsified in this final point. But the question is, do we need such an analysis? In order for the analysis to be effective it is necessary to observe the following principles: transparency, simplicity of perception, target character, necessity. Observance of these minimum necessary principles will give us the opportunity to get a qualitative and capacious analysis, without excesses. Qualitative analysis should give a truthful result, identify the causes of deviations, contribute to the elimination of comments.

What is the situation with the quality control in road-building enterprises? Often, management companies of holdings are overly fond of control, even forget about the importance of continuity of the production process. Total control, and unsystematic - the "calling card" of the Russian road-building companies. The observations of the author show that annually the number of controlling and controlled indicators in companies is growing exponentially. In this regard, the existing management approach in road-building enterprises expresses the well-known law of the dialectic of the transition of quantity to quality. Thinking that the preparation of a larger number of documents, the maximum requirement of requirements, will lead to a qualitative result in the field of control, in fact, in the pursuit of quantity, the company does not receive the required minimum tasks. Hence the opposite effect: a formal approach to the performance of tasks. The periodic appearance of new forms of reporting and analysis that are not properly coordinated, inconsistent with the usual requirements for documenting management activities and organizing work with documents that contradict economic concepts and the existing regulations at the enterprise, leads to a complete dampening of the work of the performers. It turns out that the company is not able to systematize these requirements and actually carry out quality control of the implementation of tasks and processes.

The second section covers the quality of the production process. Here we must take into account at least three quality components: the level of preparation of project documentation, the quality of resource support for the production process, the quality of construction and installation works. The first of these components relates to external factors, and the enterprise's influence on it is limited however not excluded. The quality of the



preparation of project documentation greatly influences the final product of the production process. Own design institutes in the group of companies (holding) could play a significant role in resolving this issue. The quality check of the preparation of project documentation should be carried out by these institutions prior to the commencement of the feasibility study on the participation of production units in auctions and tenders. At the present time, in many enterprises, the construction units themselves have to sort out, analyze, and identify the shortcomings of design developments, as well as determine the feasibility of participating in this or that auction. Such a superficial assessment often goes against management. Therefore, the quality of preparation for auctions is also not up to par. And this question is one of the most important and an indicator of the quality of the company's marketing activities.

The quality of resource support is a matter of an internal nature and depends on the managerial abilities of the employees of the enterprise itself. Factors affecting quality are material and technical resources, labor resources, financial resources, etc. The quality of acquired material resources should be monitored by division laboratories. However, they do not have the opportunity to check the quality of each batch of material supplied, and a random check is carried out. In order to eradicate the supply of material resources of poor quality and inadequate to the Customer's requirements, it is necessary to organize effective work with suppliers and to prevent such incidents. This mainly refers to the quality of the formation of trusting relationships, which we will discuss below. In many ways, poor-quality material comes from work "from the wheels," when decisions are made with a delay of several months, and in order to have time to fulfill the production plan, employees of the logistics department have to be "creative" on the move, which does not guarantee infallibility.

The quality of work of the labor collective cannot be assessed in the conditions of mistrust of them. Competitive struggle for power and efforts to increase its significance - its "I", leads to ignoring alternative views, to totalitarianism, the authoritarian style of managing a company. Opinions of middle management, top managers of managed societies can make a significant contribution to improving the quality of various processes. A clear distribution of functions and powers, compliance with regulations, the immutability of the rules of behavior - these are the main components of ensuring high-quality work of labor resources. Currently, in many road-building companies there is no record of such parameters.

Providing an enterprise with financial resources is one of the significant tasks. The company must have a stock of financial resources, both own and borrowed. In the conditions of "expensive money" it is inappropriate to keep large balances on current accounts, money must work. The stock of open credit lines is a pledge of success; this is a job ahead of time and a competitive advantage of a company over its competitors. Due to this reserve, you can fearlessly participate in various auctions and contests, make a worthy competition to opponents. Another issue is the price of borrowing. Undoubtedly, any company wants to get loans and loans at the lowest possible rate. However, this is not always the case. Experience shows that interest rates on attracted funds depend on the market situation: the prices of money in the interbank market, in the deposit market, the key rate of the central bank, the importance of the borrower for the credit institution, the company's reputation in the market, personal relations of the company management of the borrower and the lender, etc. The current uncertainty in the economic policy of the state leaves a negative imprint in the relations between borrowers and creditors and has already led to the freezing of the lending process, lengthening the time for consideration of applications, to an increase in interest rates to 19% due to risk premiums. These and other factors lead to a decrease in the quality of financial support of the enterprise.

The quality of construction and installation works is directly dependent on the above factors: well-prepared project documentation, timely provision of resources, and high-quality organization of the production process.



Evaluation of the quality of work is performed by the customer. Therefore, the fact of acceptance of work by the customer can be considered as a sign of quality work.

The third section for the integrated quality assessment includes the group “quality of company management”. The most important component in this group is process management. In many construction companies, an algorithm for business processes has been formed. However, it did not work at full capacity. The role of the Board of Directors, as well as the Board, in the management of many companies is minimal; in fact, these bodies do not perform their main functions. Control by the Board of Directors on various issues is a mechanism of success of an enterprise that is proven by international experience. Members of the Board of Directors should be elected from qualified people from different industries. To improve the quality of the work of the Board of Directors, the participation of independent directors is also necessary; this will give an additional impetus due to an alternative view on existing problems.

The choice of a predominantly authoritarian management style by many Russian companies (other management styles: democratic (collegial) and liberal (permissive)) does not mean that this style has some negative sides. But at the same time, one should not forget that the head with this style is a supporter of centralized management, has sufficient power, rigidly dictates his will to the performers, and most often addresses the needs of lower levels based on the concept that people are by nature lazy, avoid work and responsibility, and to make them work, you need to use coercion, control, and threat. He makes decisions alone, based on personal experience and intuition; directly determines the functions of subordinates, preventing them from taking the initiative; strictly controls their actions, stops all criticism, and gives the performers a minimum of information; only he knows the actual state of affairs in the team and prospects for further development. Formally, such a manager relies on the established management hierarchy, the current management structure and the system of rights and obligations of employees. However, an authoritarian power that does not know compassion and compromise is not necessarily characteristic of a strong personality. More often, this leadership style is preferred by weak and primitive bosses, who are striving to become “indispensable” [17.p.-271].

With a liberal management style, a liberal leader should master the principle of delegation of authority, maintain good relations with informal leaders, be able to set tasks correctly and determine main areas of work, coordinate staff interaction to achieve common goals. The most dangerous test for a liberal management style is the emergence of conflict situations, a kind of battle of ambitions, the likelihood of which is very high in a team of gifted, extraordinary personalities.

To improve the quality of management can not be content with only one management style. It is necessary to obtain a synergistic effect from the use of the different possibilities of each management style using administrative, economic and socio-psychological methods.

An employee who is not interested in his work will not stay long in the company. The loss of skilled experienced personnel who are still able to work and generate income for the company will, in time, adversely affect efficiency. This will be the result of poor-quality management of all processes of the enterprise.

The last group of quality assessment includes the quality of the final product, the quality after-sales service, the quality of trusting relationships. The final product of the road construction company is a high-quality construction and installation work for the construction, repair and reconstruction of highways that satisfies the customer and consumers. We would call such a product a “product to meet consumer requirements of stakeholders” (PMCRS). But at the same time, another characteristic feature of the PMCRS is the satisfaction of



the personal needs of producers, through the material, moral, and other benefits created in the course of performing work and services.

The quality of after-sales service is manifested through the fulfillment of warranty obligations. The better the final PMCRS, the less the need for warranty work and post-warranty service.

The quality of trusting relationships is assessed between the enterprise and its employees, suppliers, customers, credit and financial organizations, and other counterparties. The tense situation in the team, creates an atmosphere of mistrust between managers and managed. Constant pressure, the search for "extreme", humiliation, underestimation, and sometimes frank insult to the feelings of subordinates - an erroneous management approach, the purpose of which is to increase the efficiency of the company as a whole. This can lead to the division of the team into groups, a decrease in productivity, work output and, ultimately, a drop in the quality of work, participation rates, work discipline. A similar attitude towards suppliers of various goods and services is fraught with a decline in the company's reputation.

Conclusion

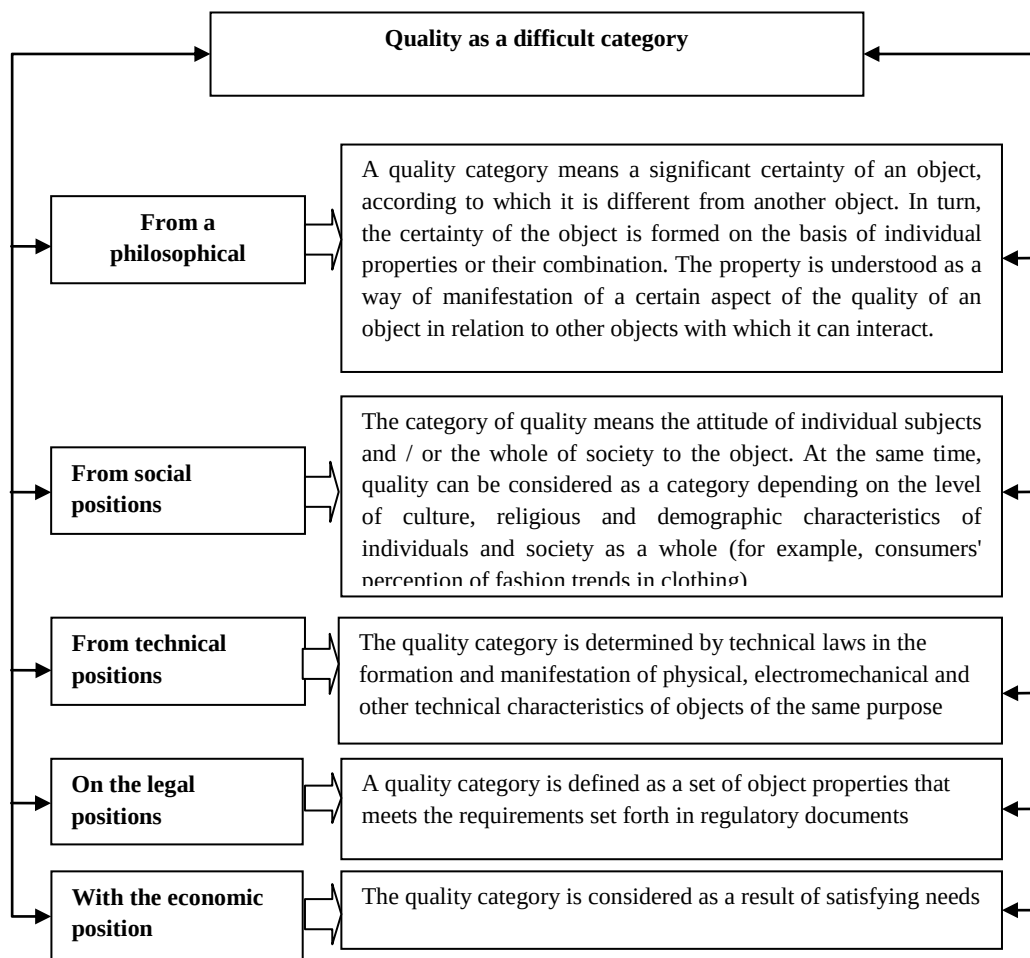
In conclusion, I will cite the words of E. Deming: "The problem is not quality improvement. Quality improvement is the solution to the problem." Companies need to analyze, identify, and find solutions to existing problems of the enterprise. He noted that "interfering with a stable process (i.e. making changes in response to "common causes") only worsens the system's performance." Two of the 14 key principles of E. Deming sound like this: "put an end to the dependence on mass control, give workers the opportunity to be proud of their work" [18.p.-154]. Only in this way it is possible to achieve high-quality implementation of the stages of the production process.

Bibliography

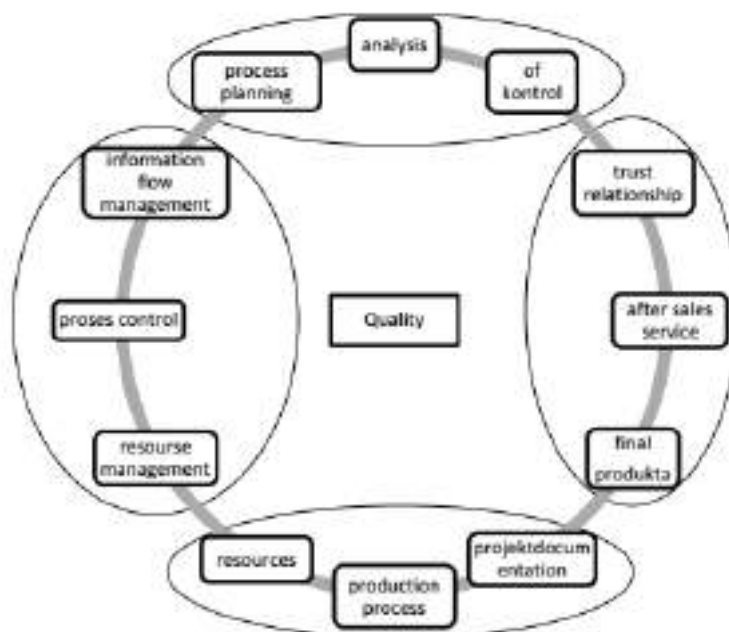
- Aristotle. Cit. : Metaphysics. M., 1975. T-4.(p.215-216)
- Gorbashko Elena Anatolyevna "Quality management: Tutorial, -Pb.Piter, 2008.-384 p. (p.-10-11)
- How to work: How to invent / A. Gastev. - M. : Central Labor Institute, 1922. - 46 p.(p.-24)
- Azgaldov G.G. Theory and practice of assessing the quality of goods. Basics of qualimetry - M. : Economy, 1992. - 256 p.(p.-79)
- Azgaldov G.G. On the integrated measurement and evaluation of product quality. - In Sat: On Methods for Measuring Product Quality (Qualimetry Questions): Proceedings of the All-Union Scientific Research Institute of Standardization, 1969. Issue 1. - M. : Publishing house VNIIS, 1969. P.20-51.
- Glicev A.V. Quality, Efficiency, Morality - Moscow: LLC Premium Engineering, 2009. - 358 p.(p.-351)
- Kruglov MG, Nezhurina M.I. Quality control. Tutorial. M. : Publishing house Academy of ischemic heart disease - MIPT, 2009. - 112 p.(p.-84)
- Subetto A. I. The function of quality assessment and its organization in design quality management systems in design organizations. - L. : LDTP, 1980. - 31 p.(p.-19)
- Shor Ya.B. Statistical methods of analysis and quality control and reliability Publishing House "Soviet Radio", M. : 1962. - 553 p.(p.-331-332)
- Schuhgalter L.Ya.Technical level and product quality [Text]-Moscow:[b.and.],1965- 59 p.(p.-25-26)
- Boytsov V.V., Glichev A.V. - Product quality management - M. : Publishing house of standards, 1985. - 464 p.(p.183-184)
- J.Juran. Top management and quality, New York: Joseph M. Juran, 1980. - 154 p.(p.-113)
- Feigenbaum A. Product quality control. M. : Economics, 1986. - 47 p.(p.-29-30)
- Edwards Deming. New time management. - M. : Alpina Publisher, 2019. - 182 p.(p.-139)



- Schuhart Walter Andrew. Statistical method in terms of quality control. - Washington, Graduate School, Department of Agriculture, 1939. - 68 p.(p.-45)
- Quality management. [electronic resource] URL http://www.kpms.ru/General_info / Quality_management.htm (the date of the appeal 12.03.2015).
- Knorring, V.I. Theory, practice and art of management [Text] / V.I. Knorring. -M.: NORMA-INFRA-M., 2001. - 528 p.(p.-271-272)
- Niv Henry, R. The Space of Dr. Deming: Principles for Building a Sustainable Business [Text] / R.N. Henry. - M.: Alpina Business Books, 2005. - 370 p.(p.154-155)



Picture 1. Quality as a difficult category



Picture 2. Major quality assessment teams



The Expectations of International Students of Leadership on International Campuses

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Abstract

As a growing phenomenon, internationalization has reflected its expanding effects on many university campuses which are increasingly becoming social and cultural places hosting students from different parts of the world. On such campuses, international students are offered numerous chances to actively participate in social events besides receiving undergraduate or graduate education. This qualitative case study examined the expectations of 12 international students of leadership from the academic and managerial staff. The data were collected through open-ended questions. Content analysis revealed that the participants approached leadership from three perspectives: expectations from academic leaders, from managerial leaders and from local and international friends. They expected academic leaders to offer high-quality education and they expected managerial leaders of the campus to create chances of interaction through extra-curricular activities and to provide peaceful educational and social atmospheres in which they can healthily interact with local and international students as well as local citizens.

Keywords: Leadership, International campus, International student, Internationalization

Introduction

Internationalization movement with its long history has started to strongly dominate the world in many different areas ranging from financial areas like business and trade to more social and human-related areas like tourism and health (Khondker, 2013). Education is also not an exception to the areas in which the powerful effects of the internationalization movement has been observed. When university campuses in the whole world are examined, it can be seen that a great majority of them are uniting international students with local ones and an increasing number of universities are developing and equipping themselves to be able to host international students. These universities, which hold the characteristics of international campuses, are hosting gradually increasing numbers of international students each year and, in a way, serving for the purposes of the internationalization movement.

On international campuses, students are offered numerous chances to actively participate in social events besides receiving undergraduate or graduate education. They can be active members of social and cultural groups by presenting their own cultures in the international community while they can also learn about the local culture and other international cultures presented by their international classmates (Takkaç Tulgar, 2018, 2019). Therefore, in such environments, international students bring and form some expectations from different members in the international community.

Among these members on international campuses, leaders at different positions inevitably play a critical role in the establishment and maintenance of healthy and efficient educational, social and cultural atmospheres. Leaders are assumed to hold central places on international campuses as they influence behaviors and actions of particular communities in line with the organization's visions and missions (Hook & Vass, 2000; Winston & Patterson, 2006).

As regards the leadership structure of international campuses, one can observe that university staff are placed at different leadership positions in order to serve for such different purposes as providing education, organizing social and cultural events and regulating the system as a whole. What is common among these leaders is to manage a whole system with the cooperation of its members. Touching upon this common point, Can (2009) maintains that leaders should be equipped with "the ability to gather individuals around some specific objectives



by motivating them to fulfill these objectives cooperatively” (p. 436). As suggested by DuBrin (1990), therefore, leaders can have influence on the activities of a group in different situations, which is regulated according to the fundamental missions of the organization. Therefore, especially in contexts where “transnational and territorial cultures of the world are entangled with one another in manifold ways” (Hannerz, 1990, p. 244), leadership actually matters.

When the existing research on the universal concept of leadership is reviewed, it is seen that leadership has been studied from such perspectives as; the types of leadership (Avolio & Bass, 1991; Bolden, 2011; Laub, 1999), instructor leadership (Pounder, 2008; Salinas, 2012) and leadership at tertiary level (Harrison, 2011; Walumba, Wu, & Ojode, 2004). However, there is scarcity in research examining leadership as a whole concept on campuses which unite local and international students.

Setting out from the world-wide expansion of international campuses and the need to understand the expectations of international students for the betterment of the opportunities and existing conditions offered on such campuses, this study aimed to examine the expectations of international students from leaders on international campuses. This study is expected to contribute to the understanding of the global concept of leadership, which is claimed to be widely observed but not clearly understood by Burns (1978), on international campuses, which will help the improvement of the conditions on campuses of international nature.

Method

Research method: This study adopted qualitative case study research design. Since the main purpose of the study was to reach an understanding of the expectations of the international student as regards the concept of leadership on international campuses, case study design offered the chance to reach detailed understanding of the issue (Bogdan & Biklen, 2007; Yin, 1984).

Sampling: The participants were 12 international students who were studying at ATATÖMER (hereafter referred as Center), a state institution which offers Turkish preparatory education for international students who are expected to reach C1 level of language proficiency in Turkish before taking their undergraduate or graduate education at the university. These participants were selected based on purposeful sampling. They were observed to take active part in both education-related events and social and cultural events. Their active participation enabled them to spend more and effective time during their stay in the international atmosphere and they engaged themselves in educational, cultural and social exchange with local and international students. In this way, these participants were thought to shape their perceptions of leadership in the light of their experiences in the international setting.

Data Collection Tools: The data were collected through open-ended questions answered by the participants in the written format and the observation notes kept by the researcher. These two data collection tools were adopted in order to increase the validity of the data. The open-ended questions were prepared by the researcher in the light of the relevant literature and the informal conversations with the international students receiving preparatory education at the Center. The open-ended questions were as follows:

1. How do you perceive the concept of “leadership” in general?
2. What are your expectations from your instructors as academic leaders?
3. What are your expectations from your management (Center director and vice director) as managerial leaders?
4. What are your expectations from the university management (Rectorship) as top managerial leaders?



5. What are your expectations from the other international friends as the contributors of social and cultural leadership?
6. What are your expectations from the local students as the contributors of social and cultural leadership?

The questions prepared by the researcher were checked for understandability and clarity by two field experts who were the instructors of the participants. In addition, two international students who were not the participants of the study were posed the questions and they approved the clarity and understandability of the questions. These steps were taken in order to ensure the validity of the questions.

The second data collection tool was the observation notes. The researcher took four observation notes in total based on her observations of the participant expectations reflected through their words and actions. These notes were held immediately after the formal or informal events in which the participants met different leaders on the campus besides meeting with other local and international students.

The data through the open-ended questions were collected in the final week of the Turkish preparatory education so that the participants could have a rich sense of being active members in the international setting. They were asked to provide free answers to the questions presented above. They answered the questions in Turkish since they reached C1 level of language proficiency after the preparatory education. The observation notes were taken by the researcher in two-month intervals from the beginning to the end of the long preparatory education so that she could better observe the change in the expectations of the participants.

Data Analysis: The data were analyzed through content analysis. All the answers were read for an overall evaluation and then a three-step process was followed: Individual analysis, in-group analysis and cross-analysis. In the first step, individual analysis, the researcher content-analyzed two data sets separately. The answers of each participant were examined separately in order to reach a detailed understanding of each participant's perceptions of leadership. A similar process of separate analysis was also followed in analyzing the data obtained through the observation notes. In the second step, in-group analysis, the answers of each participant were compared with each other in order to identify similar and different aspects in the expectations of leadership. The observation notes were also subjected to an in-group analysis to picture the change in the expectations of the participants. In the third step, a cross-analysis was conducted with an aim to compare the findings obtained from two different data sources.

The two data sets were also examined by another field expert following a similar analysis pattern. The reason for conducting a three-step analysis and consulting another field expert for a similar analysis procedure was to increase the validity and reliability of the data analysis process.

Findings

The overall evaluation of the results indicated that the participants approached leadership from three main perspectives: expectations from the academic leaders, expectations from the managerial leaders and expectations from the other international and local students.

As regards the expectations from the academic leaders, the participants expected the academic leaders to teach them the language (Turkish) effectively as it was the common means of communication between them and other members in the international community. They believed that learning the language from native-speaker teachers as the academic leaders would help them maintain effective communication in the international community. The



below excerpt taken from the answer to the open-ended question points at the common expectation of the participants from the academic leaders:

“Here, Turkish is the common language with which we can establish and maintain interaction not only with local friends but also with other international friends. Therefore, I naturally expect my Turkish instructors to teach me Turkish in an effective way. I also believe this is their main responsibility as academic leaders.”

The participants also expected the academic leaders to provide high-quality education as their aim was to follow their under/graduate studies on the international campus. This expectation was reflected as follows:

“Since Turkish is the medium of instruction at this university, I expect our Turkish instructors to provide us high-quality education in terms of language and field-specific content. As they are the academic leaders, they should lead us to good education.”

The analysis of the observation notes also revealed that all the participants expected their instructors as academic leaders to offer them high-quality education since the early days of their preparatory education. They were aware of the need to learn Turkish in an effective way not only to receive good education but to maintain good interactions with other students and instructors on the international campus.

As regards their expectations from the managerial leaders, the analysis revealed that the participants wanted the director and vice director of the Center to organize formal and informal occasions in which they can be in constant interaction with other students. They expected managerial leaders to give them chances for interaction through which they can learn about other cultures while introducing their own culture at the same time. Regarding his expectations from the managerial leaders, a participant offered the below comment:

“Since there are local and international students at the Center, we expect our directors to create chances for us to interact with each other in formal and informal settings. In this way, we can know each other better.”

Referring to a similar aspect, another participant explained that he perceived the role of the managerial leaders as organizers of meetings in which they can unite with other cultures:

“I think what managerial leaders are mainly expected to do is to offer us chances for interacting with each other. Because we are here not only to receive education but also to learn about other peculiar cultures.”

Similar aspects were also noted in the observation notes. The participants were observed to have expressed their wish that the managers at the Center, the campus authorities with whom they had direct and constant contact, were aware of their desire to be exposed to the local culture through their interactions with their local friends. Therefore, they frequently asked them to organize different events for cultural and social sharing.

When it comes to their expectations from the top managerial leaders, i.e. the Rectorship, the participants explained that they expected them to manage a combination of the responsibilities expected from both instructional leaders and managerial leaders. The top managerial leaders of the campus were expected to constantly follow the developments in technology so that they can equip instructional places with new



technologies to provide high-quality education. In this way, they believed they could receive better language education.

The top managerial leaders were also expected to create chances of interaction through extra-curricular activities in which they can meet with the authorities and local citizens in order to introduce their culture to them. This expectation was narrated by a participant as the following:

“Here, our Center directors are offering us many chances to interact with other students on the campus. However, as we are all representatives of different cultures, we expect the university leaders to organize more comprehensive events in which we can also meet with the local citizens of the city. In this way, we can introduce our culture to them.”

The participants also expected the top managerial leaders to organize events, in collaboration with the local authorities, in which they were able to experience the essence of the local culture through their genuine communication with the locals:

“I believe the Rector is the most important figure who is first responsible to create a peaceful atmosphere for us. We are here to take education and take part in social and cultural events. Therefore, the university leaders are expected to create peaceful atmospheres in which successful educational processes can be experienced accompanied with interactive social events.”

The observation reports were in line with the answers to the open-ended questions. During formal and informal occasions, the participants expressed their wish to get in touch with the local authorities and local citizens in order to live the essence of the culture in its authentic setting. They also reflected their expectation that the current developments are to be followed by the top managerial leaders on the campus for the provision of high-quality education in line with the world-wide standards.

As for the expectations from the other international students and the local students on the international campus as the contributors to the social and cultural leadership, the participants maintained that they expected their local friends to be friendly and help them preserve their own identities while being active members in the new international community. This expectation was narrated by a participant with the following words:

“We are foreigners here; therefore, we expect to be treated in a humanistic and friendly manner in order to adapt ourselves to the new environment. So, it is essential for us that our local friends hold positive attitudes towards us as new members on this international campus. Here, we should be our real selves while being the new members at the same time.”

They also expected their local and international friends to share their own cultural and social peculiarities so that they can also learn about different cultures. While referring to their expectations from the other international students and the local students, the participants underlined the value of friendship and equality among the members on the international campus for initiating social and cultural exchange:

“This international campus hosts many local and international students and all of us have different cultures. I expect other students to be in constant interaction, in a friendly manner, in order to have social and cultural exchange, which is a great advantage on international campuses.”



The observation notes also showed the need to be treated in a friendly manner by their local friends. During informal organizations, the participants frequently commented that they expect local students to help them not only about educational issues but about the cultural and social ones as well. In addition, they expected international students to be active and voluntary participants in the new international community so that they were able to initiate and sustain long-lasting cultural friendships.

Results, Conclusions and Recommendations

This qualitative case study investigated the expectations of international students of leadership on an international campus. The results indicated that the participants had different points of expectations from the leaders on the campus. While they expected their instructors as academic leaders to provide them high-quality education in order to learn Turkish in an effective way for successful learning and effective interaction, they expected the directors at the Center as the managerial leaders to organize curricular and extracurricular activities in which they could spend quality time for social and cultural exchange. As regards the expectations from the Rectorship as the top managerial leaders, the international students were observed to expect them to serve as an authority-bridge uniting them with the local citizens in the city. The results also revealed that the local and international students as the contributors of the social and cultural leadership on the campus were expected to form and maintain interactive atmospheres.

An overall evaluation of the expectations of international students from the leaders at different positions on the international campus shows that the participants expected all the leaders to contribute to the establishment and maintenance of fruitful interactive cases in which chances for social and cultural exchange as well as opportunities for high-quality education are available. The participants perceived leadership on the international campus as the responsibility of three main parties: the instructors as academic leaders, the campus management as managerial leaders and other international and local students on the campus as social and cultural leaders. They expected all the campus leaders to provide peaceful educational and social atmospheres in which they can healthily interact with local and international students. In this way, besides receiving language education, the participants could also engage themselves in international cultural and social exchanges, contributing to the richness of the internationalization movement. Brantmeier and Bajaj (2013), Clarke and Hennning (2013) and Ortega (2009) consider this expectation essential for the sustainability of international campuses.

What is common in the expectations of the participants from different parties is that they wanted the campus leaders to take responsibility and contribute to the successful progression of an international atmosphere within educational, social and cultural terms. Supporting this view of collective effort, Lechner and Boli (2005) suggest that if there is a new culture to be developed, it needs to be formed with the contributions of all parties. Therefore, within this collective effort, campus leaders at different positions are expected to play uniting and regulating roles. Upon this fundamental role, Winston and Patterson (2006) note that a leader “selects, equips, trains, and influences one or more follower(s) who have diverse gifts, abilities, and skills and focuses the follower(s) to the organization’s mission and objectives” (p. 7). As it can be inferred from this comment, campus leaders were expected to form unity and work in collaboration with other leaders in order to set an interactive atmosphere for international students within the missions of the internationalization movement.

Within the discussion of the expectations of international students, referring to the comment of Dörnyei and Murphey (2009) seems contributory. Regarding the significance of understanding different perceptions and expectations of leadership in order to raise awareness of leaders at different positions, they explain that “leadership matters; by becoming more aware of what effective leadership entails” (p. 107), leaders can better serve for the purposes of leadership. Therefore, this study is expected to contribute to the understanding of



leadership from the perspectives of international students. It is expected that the results of this research will raise the awareness of campus staff as regards their rights and responsibilities when they serve as leaders on international campuses.

In the light of these conclusions, it can be suggested that leaders on international campuses can be provided formal and informal guidance and training as regards their responsibilities. In addition, these leaders can engage themselves in some formal and informal occasions in which they can meet with international students in order to be aware of what they are expected to do. These two main processes are to help leaders on international campuses to refresh their minds, to revise their agendas and to regulate leadership positions with an aim to sustain vivid international campuses in which students can feel the 'international mood' on the campus.

This study is not out of limitations. The main limitation is the number of participants. In addition, the study was conducted only on one international campus. Therefore, future research is suggested to examine the expectations of more international students on different international campuses to make comparisons among different campus settings.

References

- Avolio, B. J., & Bass, B. M. (2002). *Developing potentials across a full-range of leadership*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theory and methods* (5th ed.). Boston: Pearson Education, Inc.
- Bolden, R. (2011). Distributed leadership in organizations: a review of theory and research. *International Journal of Management Reviews*, 13, 251-269. doi: 10.1111/j.1468-2370.2011.00306.x
- Brantmeier, E. J., & Bajaj, M. (2013). Peace education praxis: Select resources for educators and researchers. In *Educating about Social Issues in the 20th and 21st Centuries: A Critical Annotated Bibliography*. Vol. 2, edited by S. Totten and J. Pedersen. Charlotte, NC: Information Age.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Can, N. (2009). The leadership behaviors of teachers in primary schools in Turkey. *Education*, 129(3), 436-447.
- Clarke, M. & Hennig, B. (2013). Motivation as ethical self-formation. *Educational Philosophy and Theory*, 45, 77-90. doi: 10.1080/00131857.2012.715386
- Dörnyei, Z. & Murphey, T. (2009). *Group dynamics in the language classroom* (4th Ed.). Cambridge: Cambridge University Press.
- DuBrin, A. J. (1990). *Essential of management* (2nd Ed.). Cincinnati, Ohio: South-Western Pub. Co.
- Harrison, J. L. (2011). Instructor transformational leadership and student outcomes. *Emerging Leadership Journeys*, 4(1), 82-136.
- Hannerz, U. (1990). Cosmopolitans and locals in world culture. *Theory, Culture & Society*, 7, 237-251. doi: 10.1177/026327690007002014.
- Hook, P. & Vass, A. (2000). *Confident classroom leadership*. London: David Fulton.
- Khondker, H. (2013). Globalization, glocalization, or global studies: What's in a name? *Globalizations*, 10(4), 527-531. doi:10.1080/14747731.2013.806747
- Laub, J. A. (1999). *Assessing the servant organization: Development of the servant organizational leadership assessment (SOLA) instrument* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No. 9921922)
- Lechner, F. & Boli, J. (2005). *World Culture: Origins and Consequences*. Oxford: Basil Blackwell.
- Ortega, L. (2009). *Understanding second language acquisition*. London, United Kingdom: Hodder.



- Pounder, J. S. (2008a). Transformational classroom leadership: A novel approach to evaluating classroom performance, *Assessment & Evaluation in Higher Education*, 33(3), 233-243. doi: 10.1080/02602930701292621
- Salinas, H. (2012). *The role of student self-reported spirituality and perceptions of community college instructor transformational leadership style on the overall rating of teacher effectiveness* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No. 3574618)
- Takkaç Tulgar, A. (2018). Students' views on the maintenance of peace education in glocal second language setting. *Journal of Language and Linguistic Studies*, 14(4), 150-161.
- Takkaç Tulgar, A. (2019). Exploring the bi-directional effects of language learning experience and learners' identity (re)construction in glocal higher education context. *Journal of Multilingual and Multicultural Development*. <https://doi.org/10.1080/01434632.2019.1611837>
- Walumbwa, F.O., Wu, C., & Ojode, L. A. (2004). Gender and instructional outcomes: The mediating role of leadership style. *The Journal of Management Development*, 23(2), 124-140. doi: 10.1108/02621710410517229
- Winston, B. E., & Patterson, K. (2006). An integrative definition of leadership. *International Journal of Leadership Studies*, 1(2), 6-66.
- Yin, R. K. (1984). *Case study research: Design and methods*. Beverly Hills, CA: Sage.



Features of the Personnel Management Process in the Conditions of the Formation of a Post-Industrial Society

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Abstract

The rapid development of economic processes and society's transition from industrial to post-industrial requires from companies the use of newer - innovative methods of enterprise management. Based on this, in the article we look and analyze the current problems of strategic management, particularly in the field of personnel policy and personnel management of an enterprise in the context of the transformation of social and economic relations. The work has drawn conclusions and ranked the main three directions of development of the personnel management process, as part of strategic management in the formation of a post-industrial social system. The main constituent elements were the study of practical and theoretical experience of companies in the real sector of the economy, as well as the research of scientists studying the phenomenon of post-industrial society.

Key words: personnel management, management principles, industrial society, post economic society, personnel potential

1.Introduction

The development of economic models in the conditions of the formation of a modern economic reality requires special attention from a wide range of specialists dealing with management problems. However, it is regrettable that all the attention of these specialists is focused on practice-oriented research aimed at solving current tactical tasks, such as reducing costs, optimizing the number of personnel, and increasing the company's profitability. And yet, without building a theory describing the transformation processes occurring at all levels of the economy, such practical solutions will not only be insufficient, but may also come into disastrous contradiction with the new reality, brought to life by the chain of scientific and technical revolutions of the second half of the 20th century, influencing all areas of public relations.

This article is devoted to the re-creation of one of the elements of the general theory of business management in the framework of the observed trend towards "informatization" and "virtualization" of society, namely, a review of the formation of strategic models of personnel management in a transforming economy. The text of the work is based on the author's speech at the scientific and practical seminar "Formation and use of the labor potential of organizations" held in the framework of the III International Scientific and Practical Conference "Modern Problems, Trends and Prospects of Socio-Economic Development" (12.11.2013, Surgut, Surgut State University).

2.Method

Using the methods of observation, grouping, induction, deduction and classification, a system of factors influencing product quality in different directions was analyzed and developed.

3.Theory and analysis of the problem

Historically, all stages of both scientific and intuitive personnel management process can be divided into several steps. This is necessary to reach the better understanding of the modern prerequisites for the formation of new paradigms of personnel management and to predict their future development.



So, at the first, the longest stage, managed people (personnel) was perceived only as a tool. This is what made it possible to include human resources in the triad of A. Smith's labor-land-capital factors of production [1]. For many centuries, such a setup remained unchanged, responding to the level of socio-economic "consciousness" of those eras.

The industrial revolution of the XVIII-XIX centuries created two new antagonistic paradigms, namely, the perception of the worker as a hindrance and perception of the worker, if not as equal to the owner of the production, then as worthy to negotiate and as a subject, and not an object, production activity. The first paradigm was based on a sharp increase in production capacity, which created confidence in the imminent displacement of the "labor" factor by the "capital" factor¹. The second arose somewhat later and was a response to new social challenges, such as the trade union and communist movement, which forced production owners to reckon with labor. The gradual complication of production processes only increased the significance of labor resources, which undermined the positions of the preceding paradigms, retaining and strengthening the idea of "man as a goal" of production, but not as a "means". The works of such researchers as E. Mayo[2], A. Maslow[3], D. MacGregor [4] put the theoretical basis under this paradigm. The logical conclusion in the Western culture of personnel management was the extension of such an approach to the -society as a whole - that is, the construction of a "welfare state".

The crisis of 2008 sharply exposed all external and internal contradictions of the all-encompassing paradigm of "man as a goal". States and private corporations were unable to provide "universal welfare", which caused a series of bankruptcies and pre-default situations. This crisis is evidence of the gradual decomposition of manufacturing, "industrial" society, under the influence of fundamentally new technologies and new models of social interaction. The gradual transition to a new, "post-industrial" society was predicted in the works of such sociologists and economists as D.Bell, E.Toffler, V.Inozemtsev.

Bell in his work "The Future Post-Industrial Society" [5], published in 1973, formulated several main challenges that human resource management will face in new realities. First of all, this is the bringing of people's values to the fore, -frequently to the detriment of the "commercialization" tendency that prevailed during the preceding periods. The collapse of the theory of rational behavior and the rejection of the idea of the "economic man" by A. Smith, acting only in the framework of striving for maximum "utility", is also associated with this process. All this leads Bell to the final position, which states that in such an "undefined" environment from the point of view of the classical theory of management, the only way out is "social planning" with gradual "withering away" of private capital, the driver of which will be overly complicated relations of owner-worker-society .

These theses were developed in the works of E. Toffler "The Third Wave" [6] and "Revolutionary Wealth" [7]. Toffler even tougher criticizes established personnel management schemes, pointing out such factors as the disappearance of a strictly defined "workplace", the crisis of the trade union movement, the rejection of an even greater specialization of economic entities. Based on all of the above, Toffler attempts to build a new economic model based on the concept of "demand" (production and consumption), which implies the emergence of new economic centers representing a small number of people acting simultaneously as producers and consumers of various goods. All this should be a consequence of the process of "de-massification" and "de-industrialization" of the economy.

¹ see, for example, the works of C. Dickens and M. E. Saltykov-Shchedrin, bringing to an absurd the similar ideas of the second half of the XIX century.



The arrangement of the “industrial” economy is more consistently rejected in the works of V. Inozemtsev (for example, “Beyond the limits of the economic society”) [8]. In them, the author declares the beginning of the process of forming a “post economic” society, not connected by traditional market relations. The imperfection of these systems gave rise to the imperfection of control systems, which are closely connected with the external environment. However, building a “post economic” society based on “public consent” should eliminate these shortcomings.

In addition to the merely theoretical constructs of these authors, we already find evidence of fundamental transformations in the practice of managing the personnel of companies that are at the forefront of the "informatization" of society. In particular, consider the emerging traditions of human resource management in corporations Google and Apple.

In an interview with the Head of Human Resources of the Russian division of Google, we meet the following words: “Google is a huge corporation, but we were able to maintain a warm, family atmosphere. The company has no army discipline, but there is a clear organizational structure. Employees always seek agreement by discussing current issues together. The informal atmosphere also contributes to the rapid exchange of ideas” [9]. Such an attitude to personnel is based on the alien era of industrialism, the idea of identity between the interests and needs of employees and owners. In addition to these elements of corporate culture, Google is known for a rather liberal attitude to the use of working time, if it does not harm the overall performance of the company as a whole [10.].

A slightly different approach is typical for Apple. According to a former employee of the company S. Agarwal, when he started his own business, he took over the following personnel management principles from Apple: “Personally, I am ... an Apple fanboy and I like it. There is nothing wrong! I am ready to work twice as hard [for this company], because I have believed in it all my life”; “Hire people who are wholeheartedly in love with your products”; “Create a culture and respectful relationship between management and subordinates” [11]. These principles are somewhat stricter than the principles of Google, they place higher demands on the loyalty and dedication of employees, however, as in the previous case, the business is focused on identifying itself and its employees. And if Google is talking about a "family atmosphere", then with respect to Apple, it would be more appropriate to compare it with the medieval workshop, which differs from the "family" by a slightly more strict hierarchy and isolation.

Thus, modern corporations form two centers of attraction for personnel management systems: the corporation-family and the corporation-shop. Moreover, despite the apparent differences, in the most general sense, their ideas coincide. Moreover, these templates have a basic premise - both Google and Apple are gradually, consciously or not, moving away from consumer orientation, becoming locked in their own personal-oriented structure. Google is a monopolist in the niche market for search products, Apple, in turn, is shaping its consumer and its subculture, not seeking to attract "related customers." This shows us a kind of “watershed” in relation to the twentieth century, when companies sought to ensure the simultaneous well-being of both their employees and their customers.

Accordingly, an alternative to limiting concentration on employees is the same limiting concentration on customers and consumers. In the future, this should be linked to the idea of “public ministry” and the subsequent transformation of business firms into non-profit organizations. This path of development is still not as obvious as the first one, but the increasing interest of management theorists in non-profit entities [12] testifies in favor of the viability of this theory. If the organization seeks to preserve both development vectors (both employees and staff), then it will be forced to sacrifice its scale and develop within a small education based on the idea of demanding on Toffler.



In addition to the indicated trends in the formation of personnel management in a post-industrial society, there is another, less pronounced direction, similar to the above-mentioned view “man as a hindrance”. In modern conditions it exists in two versions - cybernetic and synergistic. The cybernetic approach involves the creation of fully computerized and controlled technological systems that are independent and even resistant to human influence (with the exception of the creator of the system) [13]. Synergetics also insists on the exclusion of human intervention, but this time only from the manager’s side, proving that systems and organizations have the capacity for productive self-organization [14], respectively requiring autonomous self-government for organizations, with absolute (not declared) equality of their components.

So, we have come to a similar period in the development of personnel management systems, which already had existed in the XIX century, and is also related to the dilemma of the correlation of a person and a managed organization. The scientific community will have to answer the question of how permissible and acceptable it is to limit the role of individuals and their associations in the management of both the entire organization and its private subsystems (which includes personnel)[15]. In the future, it is necessary to propose clear strategic steps to implement the most appropriate scenarios for each particular company in terms of adapting to transformations in the post-industrial economy: emphasis on personnel (partial isolation), emphasis on consumers (de-commercialization) and maintaining emphasis on both of them reduction of “consumption”.

4. Conclusions

It seems most likely that the greatest number of prospects will open for companies that have managed to abandon outdated strategic models and are able to adapt the production of goods and services to the needs of the new era, even at the risk of their own scale and profitability. Only by advancing “the future that has already come” it will be possible maintain the effectiveness of the global production system general, and the success of individual economic actors in particular.

5. References

- Smith A. Study on the nature and causes of the wealth of nations. - M.: Eksmo, **2007**, 572.
- Mayo E. The Human Problems of Industrial Civilization. New York: Viking Press, **1960**, 124–125
- Maslow A.G. Motivation and personality / lane. from English - 3rd ed. - SPb.: Peter., **2003**, 392.
- Classics of management: translation from English. / ed. M. Warner. St. Petersburg: Peter, **2001**, 475.
- Bell D. The coming post-industrial society. The experience of social forecasting: Per. from English / D. Bell. - M.: Academia, **1999**, 956.
- E. Toffler. The Third Wave: Per. from English / E. Toffler. - M.: AST Moscow: Profizdat, **2004**, 784.
- Toffler E. Revolutionary wealth: Per. from English / E. Toffler, H. Toffler. - M.: AST Moscow: Profizdat, **2008**, 569.
- Inozemtsev V.L. Outside the Economic Society / V.L. Foreigners. - M.: “Academia” - Science, **1998**, 640.
- Google:an employer for talents/Planet “HR” [Electronic resource]//URL: <http://planetahr.ru/publication/2460>, (appeal date 15.10.2018).
- Google jobs/Life at Google [Electronic resource]// URL: <http://www.google.com/about/jobs/lifeatgoogle/> (appeal date 10/18/2018).
- Management Lessons I Learned Working At Apple / Business insider [Electronic resource] // URL: <http://www.businessinsider.com/management-lessons-from-apple-2011-4>, free (call date 10/22/2018)
- Drucker P. Management in a non-profit organization: principles and practice: Per. from English / P. Drucker. - M.: Williams, **2007**, 304.
- Wiener N. Cybernetics, or Control and communication in the animal and the machine: Per. from English / N. Wiener. - M.: Science, **1983**. - 344 p.
- Vasilkova V.V. Order and chaos in the development of social systems: synergetics and the theory of social self-organization / V.V. Vasilkova.-SPb.: Publishing house "Lan", **1999**, 478.



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The Main Aspects of the Application of a Systematic Approach to the Management of Continuous Educational Process

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Abstract

In modern conditions, companies in management use a situational, process or systematic approach. The choice of a more optimal approach is justified by the existing management system in the enterprise. A systematic approach is a comprehensive analysis of business processes, identification of the main elements of the processes, and making decisions that affect the ultimate goal of the company. The main problem in the formation of the system is the scheme of interactions between subsystems, since each system has its own subsystems, and they respectively sub-subsystems. Continuous educational process as the main goal of the educational organization determines the principles of strategy formation and the relationship with the outside world, including the state and potential customers interested in the final result of the educational process. This article defines the systems approach, reveals the elements, and substantiates the effectiveness of its use. The role of teamwork and priorities in achieving the goals of the educational institution are determined.

Keywords: system, system approach, subsystem, result, educational institution, continuous educational process

1. Introduction

The systems approach is one of the most important and generally accepted methodological approaches in modern theory and practice of education management. A feature of modern educational organization as a system is its relationship with the external environment. An educational organization can function by adapting to the external environment, rebuilding its processes without destroying integrity. In the case when the social system is well organized, it can itself influence the external environment, adapting it to achieve its goal. For this, the educational system must mobilize its external and internal capabilities.

2. literature review

The ancestor of the systematic approach can be considered Ludwig von Bertalanffy, who introduced the concept of a general theory of systems. The followers of this approach can also include representatives of the management theory N. Wiener, W. Ross Ashby, S. Bira, etc. The theory of systems was actively developed in the 50s – 60s of the 20th century [1]. Today, a special focus of the systems approach in management is the development of Malik Fredmund (University of St. Gallen (Switzerland)) - system-oriented management [2]. This direction is a continuation of the developments of the school of Hans Ulrich and S. Beer [3].

We can also include the development of Jamshid Garedagi “Systems Thinking. How to manage chaos and complex processes. Architecture business modeling platform” (USA, 2007)[4].

Many researchers have paid attention to the systematic approach to enterprise management, among which I would like to mention such scientists as Russell L. Akoff [5], Peter Senge [6], Vihansky O.S.V [7], William



Detmera [8], Gaponenko A.L. [9], Daft R.L. [10], L. Stanford Optner [11], Joseph O'Connor, Ian McDermott, Zharikov ON, Ignatieva A.V., Korotkova E.M. [12], Korenchenko R.A. [13], Mineeva N.V., Maksimtsova M.M. [14], Nikanorov S.P. [15], Rogozhina S.V. [16] and etc.

Since the second half of the 20th century, management theories have been strongly influenced by the intensively developing general scientific direction of the “general systems theory”, that is, the general scientific systems approach. At the junction of control theory and system theory, a simple but fundamental conclusion was formulated that any organization is a system in the most complete and strict sense of this concept [17].

3.Method. Using the methods of observation, grouping, induction, deduction and classification, a system of factors influencing product quality in different directions was analyzed and developed.

4.Problem analysis

What definition does this theory give the concept of a system? This approach is understood by the system as a set of interdependent parts, each of which contributes to the functioning of the whole. Given that the whole is primary, and its parts are derived from it. It means that the main thing at the enterprise is awareness to feel the purpose of the company, which consists of parts, and they interact with each other and with the outside world. Each manager is obliged to understand that isolated cases of managerial influence on an organization will necessarily lead to numerous and often unpredictable consequences. The consequences of decision making can be predicted by understanding the essence of the system, determining the influence of each decision on the final goal. And they become unpredictable in the case if they do not take into account the principle of organization as a single interconnected system.

Each company, on the one hand, represents a certain system, on the other hand, it exists by its own special rules. In order to effectively manage an enterprise, it is necessary to form a system of values in the achievement of which all participants should be interested. The main problem in the formation of the system is the scheme of interactions between subsystems. Since each system has its own subsystems, and they respectively sub-subsystems. Decision making in the subordination of subsystems and the organization of links between them is a long and painstaking process, often culminating in the wrong and inefficient choice.

The commercial component of the educational organization puts a trade secret in tight boundaries with a closed information system, leaving the information for the external user only with legally valid data in the framework of accounting and financial reporting. Previously, the goal, mission, and tasks facing the company were not accessible to an external user, but today each educational institution, within the framework of the reputation and image enhancement program, openly declares these parameters of its policy on official websites.

Reasonable openness of educational organization to the external user makes it part of an open system, with the ensuing consequences, when both participants can influence the organization of the educational process, the decisions of the other party. Becoming part of a unified system of existence, the company must accept the conditions of this system for making complementary decisions. In the conditions of virtualization, digitalization and technologization of the world, only the advanced achievements of an educational organization can attract potential customers. An educational institution that openly declares on its websites that new educational technologies are used in the educational process has more chances for development than an organization that applies such technology but does not advertise itself. Formation of educational process programs jointly with the employer, pre-university and post-graduate training of qualified competent specialists, organization of continuous educational process is key to success of a modern educational institution.



In the face of tough competition, each company is looking for its own development path. At the same time, she herself chooses the value system that is most suitable for her. The formation of the system, as well as subsystems, is part of the overall concept of enterprise development. Which departments, divisions to create, what management structure to choose, these questions remain open for owners. Life experience, level of education, intuition and other factors are important in determining the effectiveness of decision-making.

Another feature of the existence of a modern enterprise is the definition of the place and role of the organization in the system of state relations. Being a part of the external environment, the state influences not only current activities, but also the development strategy of the educational institution. On the one hand, changes in legislation, innovations in the educational process, changes in the system of regulation and accreditation of higher educational institutions may have a negative impact on the existence of an educational institution; on the other hand, the state as a customer can provide targeted orders for many years. Therefore, the formation of the strategy of the educational organization should take place within the state system of the strategy for the development of science and the educational process. Here, a fundamentally new view of the subsystem as a subject of activity and its role in ensuring the viability of the unified system as a whole is manifested [18].

The old approach to the management of an educational institution as a single system assumed that subsystems play a major role in the development of an enterprise and that operational decision-making within the process approach is the key to success. However, the new approach of strategic thinking puts questions of long-term development and the achievement of a single goal at the head of management; that is, a new approach of systematic thinking leaves managers with a decision-making function within the framework of solving strategic tasks, thereby forming the relationship between personal achievements and the overall goal of the educational enterprise.

From this position, the manager should realize his role in achieving the overall goal of the company, show abilities in the field of analysis, develop solutions to problems, be prepared for self-learning and application of new skills, etc. [19].

Thus, despite the fact that much depends on the quality of teaching, unrelated management decisions on time and space in achieving private goals may not give the desired result on the whole, thereby reaffirming the importance of a systematic approach to management of an educational institution.

Having analyzed the existing interpretations of the systematic management approach, we can present the system in the following forms:

1. System as a mechanism - each part of the system is dependent on the previous one, the end result is the result of successive actions. For example, the clock works this way: the failure of any part of the clock mechanism leads to a distortion of the result.
2. The system as a whole - as a human body. The overall goal of the system is complementarity, mutual assistance. In the case of an illness of an organ, the whole system fights with a foreign body, thereby helping to quickly recover and get into operation for full development.
3. The system as a struggle for survival, the struggle for resources. An example is the World System. Understanding the principle of coexistence, however, confrontation constantly arises between countries for goods, spheres of influence, etc. At the same time, world powers realize that there will be no final winners; such a system is self-destructive. But the world system has existed for thousands of years in conditions of war and destruction [20].



Taking into account the above, educational organization should work on the principle 2 - the system as a whole. When errors are made in one subsystem, they should be corrected jointly by other subsystems, thereby minimizing the influence of an erroneous decision on the overall result.

A distinctive feature of the process approach (outside the framework of the systems management approach), in our opinion, is the existence of specific issues within the solution of a specific task, thereby confirming that each process is by itself, that there is no specific interconnectedness, when the personal interests of the results of one process are not linked to common purpose.

Meanwhile, a systematic approach implies that all participants in the system act for the benefit of the common system, for a single result, for a single goal.

In the process approach, management is carried out by specific managers within their functional responsibilities; in a systems approach, a collective decision should be taken at the head of the decision; that is, management as much as possible should be carried out collectively, more precisely, not even the management process itself but specifically the decision-making and monitoring of implementation, thereby forming independent control over each process. The main distinctive feature and advantage of the systems approach is the coincidence of personal and collective interests. In the system approach there is no place for competition between participants in a single process. Competition is permissible only in terms of achieving quality in educational process.

5. Conclusions

Following on the above hypothesis, each system must consist of subsystems; each subsystem is a collectively controlled mini-system. The role and place of the manager is concretized and minimal within the framework of achieving the overall result, since the cumulative effect is the result of collective efforts. The effectiveness of a systematic approach to the management of an educational institution is determined by the prestige of the educational institution and the competitiveness of graduates of an educational institution in the labor market.

6. References

- Bir S. Management Science (translated from English). –M.: Energy, 1971, 56-57.
- Vikhansky O.S. Management: a tutorial. –M., 2009, 22-24.
- Gaponenko A.L. Management Theory: Tutorial. –M., 2011, 126-128.
- Russell L. Ackoff. The Art of Problem Solving. - John Wiley & Sons, 1978. R. L. Ackoff. The Art of Problem Solving. - Translated from English: E. G. Kovalenko, edited by candidate of technical sciences E. K. Maslovsky. -M., 1982.//Electronic publication: Center for Humanitarian Technologies. URL: <http://gtmarket.ru/library/basis/7078> (appeal date 12/21/2018)
- Introduction to operations research / U. Churchman, R. Ackoff, L. Arnoff; Translation from English V. Ya. Altaeva [et al.]; Ed. A. Ya. Lerner. - M.: Science, 1968, 121-123
- Senge P.M. The fifth discipline: The art and practice of the learning organization. Publishing house: Mann, Ivanov and Ferber. 2018, 252-253.
- Vikhansky O.S, Naumov A.I. Genre: Management Publisher: "The Economist", 2006, 426-428.
- William Detmer. Goldratt theory of constraints. A systematic approach to continuous improvement. Publishing house: Alpina Publisher, 2013, 342-345.
- Gaponenko A.L. Management theory: a textbook for bachelors/A.L. Gaponenko, M. V. Savelieva. - Moscow: Yurait Publishing House, 2014, 114-116.
- Daft R.L. Organization theory: a textbook for university students enrolled in the specialty "Organization Management" / Richard L. Daft / trans. from ang. by ed. E. Korotkov // M.: UNITY-DANA, 2012, 349-352.
- Optner S.L. Systems analysis for solving problems of business and industry / 2nd ed. - M.: Concept, 2003, 84-86



- Crisis management. Korotkova E.M_Uchebnik_2003, 154-156
- Korenchenko, R. A. General Organization Theory: A Textbook for High Schools / R. A. Korenchenko. - M.: UNITY-DANA, 2003, 78-79.
- Management: a textbook for university students enrolled in the direction of "Economics and Management" / ed. M.M. Maksimtsova, M.A. Komarov. - 4th ed., Pererab. and add. - M.: UNITY-DANA, 2017, 118-123.
- Nikanorov S.P. Improving, creating and developing organizations based on the theory of systems // Cybernetics - serving the communism. Problems of research and management in large energy systems: Sat.v./ed.Acad.A.I. Berga. - M.: Energy, 1997, T.8, 3-40.
- Rogozhin SV., Rogozhina T.V. Organization Theory. M: Exam Publishing House, 2002, 214-216.
- Knorring V.I. Theory, practice and art of management: A textbook for universities in the specialty "Management". M., 2001, 58-60.
- Rozmanov V.S. Management Theory. M., 2009, 58-60.
- Smirnov E.A. Development of management decisions: a textbook. M., 2010, 271.
- Feyzullaev M.A. Modernization of a systematic approach to enterprise management // Theory and practice of social development – 2017, №4, 47-51.



Institutional Approach to Human Economic Behavior

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Abstract

The purpose of research is the study of institutional factors that regulate human's economic behavior. Another attempt has been made to analyze and summarize knowledge about the economic behavior of a person, to synthesize ideas about the natural-public environment that regulates the human economic behavior. The different economic strategies of behaviour are studied by research based on the multi-dimensional prisoner's dilemma. Assumptions are put forward about the evolution and development of institutions that support the decent behavior of the individual's economic activities. Limiting demand growth by increasing productivity and supporting competition seem to be attractive mechanisms for improving people's well-being. Reducing income inequality can weaken the forces (pride, greed, etc.) that limit people's inclinations toward honesty. Ensuring the transparency of information on the behavior of economic agents, as well as the quality of mechanisms that support decent economic behavior of members of society are priorities for building and improving institutions.

Keywords: individual, egoism, altruism, institutions, iterated prisoner's dilemma

Introduction

The researchers note that the main cause of modern socio-economic problems is the contradiction between the rapidly changing economic environment and not changing human nature. Even ardent supporters of liberalism are asked such questions as “who are we?” And “are we so free to choose a strategy of behavior?” (Greenspan, 2010: 26). This fact indicates that human nature will still occupy a leading place in the social sciences for a long time.

The conclusions of modern liberalism are based on the principle of human rationality. But the “information asymmetry”, institutional differences and other factors lead to quite powerful deviations in the work of the principle of rationality. In science, there are opinions that a person is a rather irrational being and his inappropriate actions are smoothed out by means of an public process that is capable of producing the best, even from imperfect material. (Mondeville, 1974: 290-331).

Sombart pointed out that the actions of an economic person lead to changes not only in the economic environment, but also in the social life. Under the influence of the activity of a selfish entrepreneur, moral values change, and such negative properties as pride and greed become indicators of dignity (Sombart, 2005).

Schumpeter identified three motives that lead the entrepreneur to take risky actions: (Schumpeter, 1982: 192-194)

- need for authority and respect from others
- feelings of victory in competition
- satisfaction from creativity



Mises classified the members of modern society according to their role in economic development in the following way (Mises, 2012: 300-301):

1. Progressive minority: people prone to accumulation and savings; technologists who are constantly improving processing processes and entrepreneurs;
2. Non-progressive majority.

He noted that the market process forces the progressive minority of society to best serve the non-progressive majority (Mises, 2012: 301). In our opinion, the compilation of knowledge about the economic behavior of a person may shed some light on the questions posed and being useful for improving the institutions that influence human behavior.

The relationship of man with nature is beautifully described in the work of the French microbiologist Jacques Monod (1972: 172-173): "...then man must at last wake out of his millenary dream; and in doing so, wake to his total solitude, his fundamental isolation. Now does he at last realize that, like a gypsy, he lives on the boundary of an alien world? A world that is deaf to his music, just as indifferent to his hopes as it is to his suffering or his crimes."

For some reason, the opinion of a prominent scientist about the attitude of a person with the world around is different with a pessimistic tone. From a man who knows the tremendous power and perfection of the genetic mechanism, the other should not have been expected. But in science there are more positive opinions.

Dawkins introduced man as a machine used not only by the selfish gene replicator, but also by another replicator, the "mime." But unlike Monod, he argued that man is the only being who is capable of submission to his selfish replicators, and has strength for altruism (Dawkins, 1976)

Man, like other creatures, invented a variety of strategies for meeting the needs (survival). But exchange is the only strategy that distinguishes humans from other species. Adam Smith, professor of moral philosophy, argued that the division of labor, which best provides for the economic development of society, is the result of a person's natural inclination to exchange (Smith, 1962: 27)

Menger said that people who were not content with the benefits of nature, but sought to create new goods, achieved better results and less dependence on nature (Menger 2005).

Russian economist M.Storchevoi (2011: 78-98) proposed a three-stage model of rational choice:

1. Instincts (transmitted hereditarily) - gene level;
2. Culture (norms of behavior);
3. Intellectual choice.

Unlike economic theory, in which rationality is taken to ensure maximum utility, in this model, the main goal is "survival".

Natural selection operates in the first two levels, especially on the first level. At the level of culture, the mechanism of natural selection work is different. For a deeper understanding, consider some cultural and genetic properties of a person.

Honesty. People generally abide by the rules of honesty and do not lie, even if a lie brings some benefit. Then why is a norm being created that is not beneficial? What is the origin of honesty - genetic or cultural?



There are experiments that prove that honesty is of cultural origin (Frank at all, 1993: 159-171). I think that conducting such experiments among different nations would help to more accurately determine the origin of honesty.

Fear. Genetic sense of fear protects people from dangers and complements the lack of intelligence. But does not fear interfere with making and implementing risky business decisions?

Virtual experiments give surprising answers: fearless people achieve higher economic results than ordinary ones (possessing the genetic property of fear). It means that fear is an outdated and harmful property. But, the study of the autobiographies of fearless experimental players shows that most of them in their personal lives have experienced a fiasco. It is not by chance that a very small part of entrepreneurial initiatives ends in success (Shiv at all, 2005: 435-439).

Altruism. What makes a person to collaborate and disinterested help to others. Is altruism a genetic or cultural property? To answer these questions, biologists compared the behavior of humans and primates. It turned out that chimpanzees show no compassion for their relatives. But a three-year-old human kid happily shares with an unfamiliar peer. According to biologists, it is the instinct of mutual aid of man that determined his advantages over other species (Slater, 2000: 265-274).

The behavior of a person in a family, tribe, community is a manifestation of the struggle for survival. Comparisons of the advantages of altruism and egoism can help in predicting the results of natural selection.

Method.

In this regard, of particular interest is the Axelrod model, compiled on the basis of the iterated prisoner's dilemma (1984: 27-54). Axelrod's game involves players with different strategies, conditionally divided into honest and unscrupulous. If each player chooses a cooperation strategy, then the winning amount will be the maximum. But this requires interaction between the players. Unfortunately, this situation is an exception to reality. If one of the players chooses a strategy of refusal, and another agreement, then at their meeting the agreeing player is doomed to defeat. Sad picture, isn't it?

But, by the impact of a complex combination of relationships among members of society, more optimistic results can be achieved.

Results, Conclusions and Recommendations

One of the interesting results of the game is that by the end of the game honest players survived, it was they who took the top steps of the tournament. And the winner of the tournament was an honest player with a "tooth for tooth" strategy. Below are the main features of Axelrod's champion:

- nobility - in each first meeting with other players, he chooses an agreement.
- good memory - he remembers the actions of each player and at the next meeting answers them symmetrically.
- know how to forgive - if a rival changes his attitude towards the best (honesty), then "tooth for tooth" forgives him and returns to agreement.
- not greedy - he does not think that he will earn the most.

The results obtained in different stages of the championship, shows that the composition of the tournament greatly affects the results of the players. If unscrupulous players are the majority, then only honest players such as "tooth for tooth" survive in this stage. Kinder players have no chance of surviving in such an environment.



If only honest players remain in the tournament, the agreement strategy becomes the most attractive and natural selection destroys the feeling of revenge. If, as a result of some external interference or mutation, an unscrupulous player appears in the game, then there can be no better environment for him than the community of honest and not revengeful players.

In order for the noble actions of a person to lead to good results in a community, an appropriate environment (composition of the community) and time are required. In this game, players have no opportunity to choose an opponent, and the composition and the dominant strategy in different periods of the championship are absolutely random.

The nature of humans is determined by genes and memes. But man, as a result of evolution, has reached such an intellectual level that altruistic decisions can be made, despite the resistance of selfish genes and memes. Genetic properties of a person and social factors determine the forms and methods of struggle for survival under the influence of two differently directed forces:

1. Such genetic properties as pride, greed, envy, fear decrease mutual trust between individuals and support his tendency to refuse to cooperate - exchange
2. The needs of a modern person are increasing with great speed and he cannot create all the blessings for their satisfaction. Therefore, selfish intent - satisfaction of needs - forces him to participate in the exchange process and in the division of labor.

Axelrod's model shows that people's success, which prefer unscrupulous strategies and refuse to cooperate (exchange), are short-lived and are doomed to defeat in the long run. The results of modern developed societies show that genes and memes supporting a mutually beneficial exchange can win stronger advantages in the struggle for survival.

Limiting growth in demand with increasing productivity and supporting competition in the exchange process seem to be attractive mechanisms for improving people's well-being. Reducing income inequality can weaken the forces (pride, greed, etc.) that limit people's inclinations toward honesty.

Transparency of people's economic behavior and the availability of information about the behavior of each person could allow people to get to know each other and, accordingly, at each meeting, choose the right strategy.

References

- Axelrod, R. (1984). The Evolution of Cooperation. Basic Books, Inc. Publishers New York
- Dawkins, R. (1976)., The Selfish Gene. Oxford: Oxford University Press.
- Frank. R.H., Gilovich T., Regan D. (1993) Does Studying Economics Inhibit Cooperation? // Journal of Economic Perspectives. 1993. Vol.7, No 2. page 159-171
- Monod ,J. (1972). Chance and Necessity. Vintage Books. A Division of Random House, New York
- Shiv, B., Loewenstein G., Bechara A., Damasio H., Damasio A.R. "Investment Behavior and the Negative Side of Emotion"//Psychological Science, 2005, Vol.16, No 6. page 435-439.
- Slater, A., Bremner G., Scott P. Johnson, Penny Sherwood, Rachel Hayes &Elizabeth Brown. (2000) "Newborn Infants preference for Attractive Faces: The Role of Internal and External Facial Features"// Infancy. Vol.1, No 2.page 265-274
- Веблен, Т.Б. (1984). Теория Праздного Класа, Москва.:Прогресс.
- Гринспен, А. (2010). Эпоха Потрясений. Проблемы и перспективы мировой финансовой системы, пер. с англ. М.:Сколково.
- Друкер, П. (2000). Задачи Менеджмента в XXI веке. пер.с англ. –Москва:Вильямс, 2000, 272стр.
- Капитализм и Историки/Бертран де Жувенел; Людвиг фон Мизес; Фридрих Хайек; Томас Эштон. Пер. с англ.-Челябинск:Социум, 2012.-xii=398 стр.



- Мандевиль, Б. (1974). Басня о пчелах. Общ. ред. и вступительное слово Б.В.Мееровского, пер. Е.С Лагутина, М. Мысль
- Менгер, К. (2005). Избранные работы. Москва:Издательский дом «Территория будущего», 2005
- Зомбарт, В. (2005). Буржуа - Этюды по истории духовного развития современного экономического человека, Пер. с нем./редакционная коллегия «Civitas Terrena», Москва: Изд-во «Владимир Даль»
- Токвиль, А. (1972)., Демократия в Америке. Москва:Прогресс
- Смит, А. (1962), Исследование о природе и причинах богатства народов. Москва:Соцэкгиз
- Сторчевой, М. (2011) *«Новая модель человека для экономической науки»*, Журнал «Вопросы Экономики», №4, стр.78-98
- Шумпетер, Й.А. (1981). Теория Экономического Развития, Москва: Прогресс



The Effect of Coping Strategies on Workplace Bullying in High School Teachers

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Abstract

The research objective of this study was to determine the relationship between coping strategies and the victims of bullying at the workplace in the Czech Republic. A questionnaire battery was used consisting of questionnaires NAQ-R (Negative Acts Questionnaire- Revised), evaluating the prevalence and the forms of workplace bullying and standardized questionnaire OSI-R (Inventory of occupational stress) which evaluates the emotional, cognitive stress management and the coping strategy (personal resources for coping with stress). The research sample consisted of 253 secondary school teachers from the Olomouc Region, of whom 76 were men and 177 were women. The age range of the entire sample was from 22 to 68 years (mean age 47.94 years; SD 9.58). The existence of a negative relationship was confirmed between the victims of workplace bullying and all coping strategies monitored - social support, relaxation, self-care, and rational / cognitive coping.

Keywords: workplace bullying, high school teachers, stress, coping strategies

Introduction

Interpersonal conflicts are a natural part of social communication and interaction and have always appeared in the workplace. Therefore, mobbing cannot be considered a mere fashion trend; this type of behaviour undoubtedly appeared in the workplace in history but was not described and resolved. The need is associated primarily with the development of contemporary society, pressure on career growth, success on the labour market, and other factors. Despite this fact, this relatively old phenomenon started to be rigorously analysed as mobbing no earlier than at the beginning of 1980s. Mobbing is derived from the verb 'to mob', which means to oppress, insult, attack, swoop on. The Oxford advanced learner's dictionary (Hornby & Venitt Wehmeier, 2005) adds that the term 'to mob' is used in connection with behaviour that may become violent or cause trouble.

However, the English term mobbing has not been used only in the context of violent or problem causing behaviour. The term mobbing was popularized in literature by the ethologist Konrad Lorenz, who used mobbing for example in the context of social animals to describe attacks of crows and other birds on cats or other nocturnal predators, if they are noticed during the day. The purpose of these attacks of much smaller birds is to weaken or injure the predator and thus increase their own chances of survival. Lorenz noticed that in the area of ethology, mobbing is used especially for two purposes. One is to frighten and expel a stronger individual, while the other purpose is internal education as to what to do with predators and how to get rid of them (Lorenz 1963; 2002). The concept of mobbing was first described in 1984 by Heinz Leymann (1996) as 'a subtle act of aggression in the workplace; on a daily basis for several months an employee is exposed to hostility from one or more individuals, while experiencing helplessness and fear of being excluded from the group of co-workers.' Leymann's initial research studies were based on several case studies aimed at nurses who were subject to workplace mobbing and driven to suicide attempts. In the context of analysing the devastating impact of mobbing, Leymann reports that approximately 15% of suicide victims were subject to mobbing before committing suicide, and also that mobbing often leads to the post-traumatic stress disorder. Leymann (1996) also defined five most frequent mobbing strategies: impossibility to express one's own opinions and to



communicate, limited social contacts, threat to the victim's reputation, attacks on the quality of professional and personal life, and eventually threat to the victim's health. Mobbing is also associated with intimidation, insulting, belittling and chasing of the victim, giving senseless and difficult tasks, lack of trust and support, slandering, etc. (Fox & Stallworth, 2005). Another definition is presented by Einarsen and his colleagues (Einarsen, Hoel, Zapf, & Cooper, 2011), according to whom this behaviour involves harassment, offending and social exclusion of an employee or negative influencing of the employee's work. An activity can be considered bullying if such behaviour is regular (e.g. once a week) and repeated (e.g. during the past 6 months). During this escalating process, the victim is getting into an inferior or subordinate position and is the target of constant negative activities (Einarsen et al., 2011). Considering the latter definition, there are some features that characterize and distinguish workplace bullying from other forms of violence:

- Undesirable behaviour;
- Repeated, long-term hurting;
- Asymmetry (Einarsen, Raknes, & Matthiesen, 1994; Einarsen et al., 2011).

Taking into account the previous definition, bullying in the workplace is characterized by at least three aspects, which include undesirable behaviour, repeated and regular nature, and power imbalance. The first aspect of bullying in the workplace is that the victim of bullying is exposed to direct or indirect behaviour that is highly undesirable. These undesirable forms of unethical behaviour in the workplace may range from very subtle manifestations of negative behaviour to deliberate attacks on an individual (for example withholding information that affects the victim's work performance, repeated reminding of errors, or excessive supervision). Another sign that differentiates bullying in the workplace from other forms of violence is that bullying in the workplace is not a single attack or incident, but it is repeated, and long-term aggressive behaviour directed against one or more persons (Einarsen et al., 1994). This form of undesirable behaviour takes place regularly over a longer period of time, usually 6 months or 1 year (Einarsen et al., 1994). This criterion is supported by the argument that bullying in the workplace leads to mental and psychosomatic disorders which can be diagnosed after a period of six months, such as the post-traumatic stress disorder (Leymann, 1996). The last feature, which is power asymmetry between the mobber and the victim, manifests as the victim's helplessness to resist, stop or prevent abuse. Power asymmetry very often results from the formal distribution of power in the organization and from informal resources, particularly personal contacts.

As far as the prevalence of mobbing in the Czech Republic is concerned, research is rare, especially in terms of the teaching profession. The estimate of the overall prevalence of mobbing in the Czech Republic is 7.79% (Cakirpaloglu et al., 2016), while in the group of academic staff in Czech universities the prevalence is 7.9% (Zábrodská & Květoň, 2012). A unique research study on workplace bullying was performed among elementary school teachers. The study applied the stringent criterion and reported a bullying prevalence of 5.8% among teachers in the academic year of 2008/2009 (Čech, 2011). Of this group, 3.7% of the respondents reported being bullied by colleagues in an identical or similar position; 4.1% of the respondents indicated being subject to bossing, i.e. the initiator of systematic aggression was the headteacher or another superior employee.

The above mentioned knowledge on workplace bullying suggests that this is a form of mental maltreatment with systematic, deliberate and especially repeated attacks on an individual. This form of psycho-terror uses discriminating and degrading approach, excessive criticism, ridicule, and minor or major intrigue, which the victim is unable to prevent by means of usual volitional mechanisms. The victim's mental balance is disrupted, which is reflected in work performance and might lead to serious personality integrity disorders in the mental area (depression, concentration disorders, self-doubt, anxiety, and even psychiatric syndromes with suicidal thoughts), psychosomatic area (cardiac and blood circulation disorders, astringent breathing, headache, neck pain, back pain, skin diseases and diseases of the gastrointestinal tract), psychosocial area (inability to establish social relationships and ties, isolation, degradation of interpersonal relationships, distrust, disruption of private



life, etc.) and last but not least in the economic area in the form of decreased work performance, increased morbidity and associated high treatment costs (Mikkelsen & Einarsen, 2001; Cakirpaloglu, Šmahaj, Dobešová Cakirpaloglu, & Zielina, 2017; Huber, 1995, Svobodová, 2008). The authors also state that the consequences of mobbing are devastating both for the victims of workplace bullying and the observers. For example, some studies suggest that the witnesses of bullying in the workplace are marked by decreased job satisfaction, lesser efficiency, higher fluctuation, and increased mental discomfort; this may even lead to depression (Vartia, 2001). Paradoxically, the consequences are also reflected in the aggressor's personality – fear of being revealed and punished, atypical social ties and dubious pleasure from the suffering of others result in a lack of concentration on work, and their actions lead to a dysfunctional working environment. Stressful situations may have a negative effect on an individual's mental balance and bring changes in perception, behaviour, and thinking. Stress may trigger, cause or accompany the onset of most mental difficulties and later mental disorders [16], as well as the onset of psychosomatic problems [17], burnt-out and decreasing the level of empathy [18]. The teaching profession is classified in the group of helping professions. The teaching profession is one of the professions that includes regular interpersonal interactions with students, colleagues and last but not least parents [19, 20].

Research aimed at teachers' workload is addressed by a number of Czech authors, e.g. Paulík (2010) performed a research study aimed at workload among elementary school teachers and their self-evaluation of health. The results of the research suggest that teachers consider subjectively perceived workload more intensive than non-workload. In their research study, Řehulka and Řehulková (1998) observed that about 40% of female teachers had an increased neuroticism level, and about 10% were identified as individuals who should search for professional help. A research study aimed at mental strain in elementary school teachers performed by Blažková, Malá (2007) confirmed that 80% of teachers were affected by high mental strain, and decreased resistance to stress was observed in 25% of teachers. As far as their somatic condition is concerned, 60% of teachers showed problems with performance, physical condition, and vegetative imbalance, while 75% of teachers suggested frequent subjective mental difficulties.

This issue is therefore a serious problem and phenomenon, which includes violation of social norms associated with limiting fundamental human rights with possible tragic consequences for the victim and the victim's personality. Some researchers suggest that the mentioned adverse phenomena occur in schools as well as universities, present a burden for many teachers, and are the cause of not only serious personal problems, but also affect the quality of the teacher's performance including teacher-student relationships (Čech, 2011; Zábrowská & Květon, 2012).

Method

Objective of the paper

The main objective of the present study is to broaden the knowledge of the issue of bullying in the workplace and to identify the relationship between coping strategies and bullying in the workplace in high school environments. In this study, the gender aspect was taken into account in relation to the chosen topic. The stated objective was concretized into 3 research hypotheses, which were subsequently verified.

H1: There is a negative significant relationship between the workplace bullying experience in and the individual coping strategies for the whole set of high school teachers.

H2: There is a negative significant relationship between the workplace bullying experience and individual coping strategies among high school female teachers.

H3: There is a negative significant correlation between the experience of bullying and the individual coping strategies in male high school teachers.



Research sample

The set of the respondents consisted of 253 high school teachers. The age range of the respondents was from 22 to 68 years (mean age was 47.94 years; SD = 9.58). The research sample consisted of 177 female teachers (mean age 47.12 years; SD 9.28) and 76 male teachers (mean age 49.86 years; SD = 10.05). The duration of practice ranged from 1 to 45 years (average practice period 21.17 years; SD = 11.52). The study was conducted in accordance with applicable ethical principles. Participants participated in the research voluntarily and were informed about the possibility to terminate their participation at any stage of the research without giving any reason. At the same time, they agreed to the anonymous processing and the use of data for scientific purposes.

Research data collection methods

Data collection was performed by means of the following methods:

To identify the prevalence and forms of workplace bullying the Negative Acts Questionnaire-Revised was used (referred to as NAQ-R), which includes a total of 23 items (Einarsen, Hoel, & Notelaers 2009). This questionnaire can be administered individually or in groups. The advantage of the NAQ-R questionnaire is time effectiveness and an opportunity to measure two complementary aspects of mobbing, i.e. behavioural and self-evaluation. The behavioural measurement criterion forms the basis of items 1 to 22 of the NAQ-R and focuses on selected manifestations of negative behaviour in the workplace. A specific feature of these items is that their formulations do not include any indication that they measure mobbing. The responses are indicated on a five-point Likert scale, suggesting the frequency of bullying behaviour, i.e. how often the respondents have encountered this type of behaviour during the past six months. While the behavioural criterion is included in the first 22 items, the 23rd item focuses on self-evaluation measurement. The respondents are asked to describe their own experience or perception about whether they feel as victims of mobbing according to the theoretical definition specified in the introductory part in item 23. Cronbach's alpha for 22 items of the Czech version of the NAQ-R questionnaire achieved $\alpha = 0.94$; this confirms a high degree of reliability of this method and the fact that it can be reliably used for measuring mobbing also by means of a smaller number of items (Cakirpaloglu et al. 2017).

OSI-R – Occupational Stress Inventory developed by Osipow [26] and published in the Czech Republic by Psychodiagnostika Brno. The questionnaire comprises 3 parts: 1. Occupational Role Questionnaire ORQ, 2. Perceived Stress Questionnaire PSQ, 3. Personal Resource Questionnaire PRQ, which contains the following four scales:

1. Recreation – measures the extent to which an individual uses, enjoys and relaxes during regular recreation and leisure activities that are considered relaxing and satisfactory.
2. Self-care – measures the extent to which an individual pursues regular personal activities that reduce and mitigate chronic stress (regular exercise, sleep, balanced diet, avoiding habit-forming substances).
3. Social support – measures the extent to which an individual feels supported and helped by the environment.
4. Rational/cognitive coping – measures the extent to which an individual has and uses cognitive skills in occupational stress. After arriving home from work, the person is able to stop thinking about work and knows that there are other jobs that he/she could do.

The questionnaire was purchased from Psychodiagnostika Brno s.r.o.

In the present study, only the third part of the OSI-R Inventory was used for the purposes of identification of personal coping strategies.

The Rosenberg self-esteem scale is an instrument designed by Morris Rosenberg in 1965 as a uni-dimensional construct providing information about the global relationship to the self [27]. The questionnaire was originally



designed for adolescents and later extended to cover the entire population. The scale contains 10 questions – the overall score ranges from 0 to 30 points.

Sociodemographic questionnaire

The sociodemographic questionnaire focuses on sociodemographic data such as age, gender, length of teaching experience, length of employment in the current school, region, school size, specific position within school. In the first stage, the data were transformed into an xls format compatible with MS Excel 2013, which can easily handle data exported from the electronic questionnaire.

During the second stage, the data were formally and logically checked. Further data processing was performed using the STATISTICA programme, version 13. An analysis of results distribution confirmed normal data distribution; for this reason, a parametric statistical approach was selected, particularly descriptive statistics Pearson correlation and t-test. The tests were conducted at a 5% level of significance.

Results

The stated hypotheses are verified in the following section. The authors of this study focused on the relationship between the coping strategies and victims of bullying in the workplace.

Table 1: All groups correlation

	Age	Lenght of employ.	Total length of employ.	School climate	self- esteem	Bullying at work	RE	SC	SS	RC
Age	1,0000	,5801	,8406	,0122	-,1589	-,0793	,1668	,1513	,1590	,2108
Lenght of employ.	,5801	1,0000	,6762	,0006	-,0959	-,0680	,1343	,1024	,0791	,1045
Total lenght of employ.	,8406	,6762	1,0000	,0464	-,1497	-,0960	,1507	,1499	,1509	,1661
School climate	,0122	,0006	,0464	1,0000	-,1020	-,4859	,2813	,1232	,2752	,1985
self- esteem	-,1589	-,0959	-,1497	-,1020	1,0000	,0318	-,1082	-,2116	-,2342	-,2403
Bullying at work	-,0793	-,0680	-,0960	-,4859	,0318	1,0000	-,1203	-,0115	-,0978	-,0524
RE	,1668	,1343	,1507	,2813	-,1082	-,1203	1,0000	,3999	,3490	,4134
SC	,1513	,1024	,1499	,1232	-,2116	-,0115	,3999	1,0000	,2300	,3889
SS	,1590	,0791	,1509	,2752	-,2342	-,0978	,3490	,2300	1,0000	,4952
RC	,2108	,1045	,1661	,1985	-,2403	-,0524	,4134	,3889	,4952	1,0000

Legend: *statistical significance, RE- Recreation, SC- Self-care, SS- social support, R/C- Rational/cognitive coping

Table 1 shows the results of correlations between variables for the whole set of high school teachers. The results show that the bullying experience negatively correlates with the all monitored coping strategies. The relationships which were found were not significant, however, a certain trend can be inferred, which may have an impact on stress management strategies. A negative relationship was found in the recreation scale ($r = -0.12$). It can be stated that individuals who feel victimized by bullying in the workplace, enjoy less the benefits of leisure time, relax less and engage little in activities that would satisfy them. Further, a negative correlation was



found in the self-care scale ($r = -0.11$). According to these results, it can be assumed that teachers affected by mobbing, have poor sleep, take less care of themselves and their health and tend to have increased use of addictive substances such as alcohol, tobacco, coffee. The negative relationship was also reflected in the social support scale ($r = -0.09$) and rational-cognitive coping ($r = -0.051$). We can say that individuals exposed to bullying in the workplace have few people around them to talk about their work problems with and can rely on. They are not able to separate work from entertainment and deal with work problems even after they come home. They may also have difficulty organizing their work schedule. In addition to the hypotheses, the following interesting relationships have been identified: with increasing age, teachers are able to solve problems constructively and take care of their mental hygiene; a significant positive relationship was found between age and other coping strategies. Significant negative relationship between bullying and workplace climate perception ($r = -0.17$, $p = 0.52$). We believe that these relationships should be addressed in other research studies in relation to subsequent practical applications.

Table 2. correlation- female teachers

	Age	Lenght of employ.	Total length of employ.	School climate	self-esteem	Bullying at work	RE	SC	SS	RC
Age	1,0000	,6314	,8716	-,0038	-,1494	-,1045	,1357	,1222	,1324	,2186
Lenght of employ.	,6314	1,0000	,7047	,0232	-,0766	-,0760	,1474	,0818	,0640	,0702
Total lenght of employ.	,8716	,7047	1,0000	,0450	-,1376	-,0895	,1439	,1196	,1284	,1668
School climate	-,0038	,0232	,0450	1,0000	-,1769	-,5223	,2828	,1553	,2867	,2640
self-esteem	-,1494	-,0766	-,1376	-,1769	1,0000	,1781	-,1575	-,2385	-,3232	-,3376
Bullying at work	-,1045	-,0760	-,0895	-,5223	,1781	1,0000	-,1479	-,0548	-,1031	-,1079
RE	,1357	,1474	,1439	,2828	-,1575	-,1479	1,0000	,4607	,3608	,4284
SC	,1222	,0818	,1196	,1553	-,2385	-,0548	,4607	1,0000	,3047	,4730
SS	,1324	,0640	,1284	,2867	-,3232	-,1031	,3608	,3047	1,0000	,5326
RC	,2186	,0702	,1668	,2640	-,3376	-,1079	,4284	,4730	,5326	1,0000

Legend: *statistical significance, RE- Recreation, SC- Self-care, SS- social support, R/C- Rational/cognitive coping

Table 2 presents the results of correlations in a group of female high school teachers. A significant negative relationship was found between the victims of workplace bullying and in the recreation scale and school climate perception. In terms of age, a positive significant correlation was found in self-care scales (RC) ($r = 0.21$, $p = 0.00$). Similar results were found in the group of male high school teachers (see Table 3), with the difference that a significant positive relationship was detected between the age and Self-care ($r = 0.27$, $p = 0.18$) and Social Support ($r = 0.26$, $p = 0.15$).

Table 3. correlation- male teachers

	Age	Lenght of employ.	Total length of employ.	School climate	self-esteem	Bullying at work	RE	SC	SS	RC



Age	1,0000	,4911	,7891	,0199	-,2172	-,0704	,1902	,2712	,2649	,1544
Lenght of employ.	,4911	1,0000	,6173	-,0521	-,1354	-,0583	,1060	,1486	,1126	,1873
Total lenght of employ.	,7891	,6173	1,0000	,0446	-,1848	-,1170	,1619	,2318	,2127	,1587
School climate	,0199	-,0521	,0446	1,0000	,0398	-,4599	,2552	,0859	,2860	-,0065
self-esteem	-,2172	-,1354	-,1848	,0398	1,0000	-,2146	-,0439	-,1340	-,0452	-,0611
Bullying at work	-,0704	-,0583	-,1170	-,4599	-,2146	1,0000	-,1108	,0878	-,0675	,0256
RE	,1902	,1060	,1619	,2552	-,0439	-,1108	1,0000	,3509	,3998	,3356
SC	,2712	,1486	,2318	,0859	-,1340	,0878	,3509	1,0000	,0486	,2652
SS	,2649	,1126	,2127	,2860	-,0452	-,0675	,3998	,0486	1,0000	,4815
RC	,1544	,1873	,1587	-,0065	-,0611	,0256	,3356	,2652	,4815	1,0000

Legend: *statistical significance, RE- Recreation, SC- Self-care, SS- social support, R/C- Rational/cognitive coping

Table 4 presents the results of t-tests of differences in individual coping strategies and experiences with workplace bullying in terms of gender. The table shows that there is no statistically significant difference in mobbing experience between high school teachers in terms of gender. A statistically significant difference was found only in the Recreation and Self-care scales. The mean values suggest that men score better than women on the Recreation scale. In other words, men use the benefits of free time more than women, are more engaged in activities where they seek relaxation and satisfaction. Also, unlike women, they take more care of themselves and their health. Regularly exercise and relax.

Table 4. t-test- gender differences

	Mean female	Mean male	t-value	df	p	N female	N male	SD female	SD male	F-ratio Variance s	p Variance s
Bullying at work	30,1073	31,6184	-1,30342	251	0,19362	177	76	7,6377	10,1126	1,75307	0,00276
RE	27,8192	29,8552	-2,20145	251	0,02861	177	76	6,9126	6,3302	1,19248	0,38781
SC	27,9717	25,9342	2,16217	251	0,03155	177	76	6,6805	7,2999	1,19402	0,34521
SS	43,0056	41,1052	1,86748	251	0,06300	177	76	7,1846	7,9457	1,22309	0,28463
RC	35,6666	37,3421	-1,77815	251	0,07659	177	76	7,0924	6,3193	1,25963	0,25602
self-esteem	8,35028	9,50000	-1,40526	251	0,16118	177	76	5,7248	6,4961	1,28759	0,18013
School climate	81,6836	84,4736	-1,06504	251	0,28788	177	76	19,4229	18,3270	1,12317	0,57312

Legend: RE- Recreation, SC- Self-care, SS- social support, R/C- Rational/cognitive coping

Discussion and conclusion

Bullying in the workplace is a complex phenomenon that, if it develops, affects the whole victim's personality, including health, mental state, private life, work, ideals and opportunities. The core of bullying is humiliation



and degradation of the personality. The victim is often under constant and prolonged pressure; bullying can also affect the environment and the circumstances of the victim and ultimately lose all support. Some conditions in the education system are very difficult and complex, and it is difficult for the teachers to find a way of defense or a way out of the situation. Finally, bullying in the workplace is a serious ethical issue that affects the functioning of today's schools and has a significant impact on the victim's personality and his work and private life. Researches (eg, Čech, 2011) show that teachers' responses to bullying in the workplace vary in relation to the different circumstances of their professional and personal life (age, gender, family care, the possibility of finding a new job, subsistence dependency on work, etc.). In general, most cases have a similar development but a different outcome.

The main aim of this study was to find out if there is a relationship between bullying at the workplace and individual coping strategies in high school teachers. A total of three hypotheses have been stated that have not been confirmed. Thus, our study showed that bullying experience negatively correlates with all the coping strategies monitored, but there was no statistical significance. Nevertheless, it can be pointed out that individuals who feel victimized by bullying in the workplace, enjoy less their leisure time, relax less and do not get involved in activities that would bring them satisfaction. Furthermore, our results indicate that bullied teachers have sleep disturbances, care less about their health, and tend to increase substance use such as alcohol, tobacco and coffee. These findings correspond to other studies where the negative effects of bullying in the workplace on the psychological and somatic status of the victim have been demonstrated (Cakirpaloglu, et al., 2017; Čech, 2011; Leymann & Gustafsson, 1996, Mikkelsen & Einarsen, 2002). A significant negative relationship was also found in the Social Support and Rational-Cognitive Management scale. It can be said that individuals exposed to bullying in the workplace have little / no social support, especially in the form of a close person with whom they could talk about their work problems and which they could rely on. Furthermore, these individuals are unable to separate work from entertainment and deal with work problems even after they arrive home. Čech and his colleagues (2017), who mapped the strategies used by teachers (victims of workplace bullying) to defend and deal with aggression by their colleagues, revealed two basic categories: passive (which are the most common forms of defense against escalating aggression; , humor) and active strategies (which are rarely used; eg leadership engagement, legal defense). Here, too, the presence of bullying in the workplace has been shown to have a paralyzing influence on the victims, and (in a negative sense) to influence the victim's ability to actively defend himself or, more generally, to act actively.

According to our and number of other studies (Cakirpaloglu, et al. 2017; Cech, et al., 2017; Mikkelsen & Einarsen, 2002), mobbing represents an important place in the work environment and the profession of teachers. Our results show that mobbing does not exist only as a problem but is closely linked to several other internal factors that affect to varying degrees, and on the contrary, certain personality settings increase or decrease the potential for being a victim of bullying. We are convinced that, in addition to basic research in this area, it is necessary to transfer the topic into practice and to act primarily as a means of prevention, by raising teachers' awareness not only of the phenomenon itself, but also of the possibilities of defense or protection and knowledge of legal norms. At the same time, each school should adopt a code of ethics for teachers and recognize mobbing as an unacceptable form of behavior in the school environment. Finally, the topic of mobbing should be more widely reflected in the undergraduate education of teachers.

The Internet as an instrument for relevant data collection has some limitations, which need to be considered in the interpretation of the results. This primarily relates to the motivation for participation in a research study on mobbing. Some limitations are also caused by the selection of the questionnaire instrument for researching a complex and sensitive phenomenon such as mobbing. Although the Negative Acts Questionnaire (NAQ-R) has satisfactory psychometric features, the method of questioning cannot discern motivational, emotional and other mental processes of the main actors of mobbing. The results obtained by means of the NAQ-R questionnaire



from various countries may be misleading in performing comparisons due to socio-cultural differences (e.g. Scandinavian countries, Italy, Japan, South Korea, Turkey, etc.)

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References

- Blažková, V., & Malá, P. (2007). Odvrácená strana učitelského povolání. *Rodina a škola*, 54 (1), 20-21.
- Cakirpaloglu, P., Šmahaj, J., Dobešová Cakirpaloglu, S. & Zielina, M. (2016). Šikana na pracovišti: reliabilita a validita českého překladu revidované verze dotazníku negativních aktů-NAQ-R. *Československá Psychologie*, 61(6), 546-558.
- Cakirpaloglu, P., Šmahaj, J., Dobešová Cakirpaloglu, S., & Zielina, M. (2017). *Šikana na pracovišti v České republice. Teorie, výzkum a praxe*. Olomouc: UPOL.
- Čech, T. (2011). *Mobbing jako negativní fenomén v prostředí základních škol*. Brno: Masarykova univerzita.
- Čech, T., Dobešová Cakirpaloglu, S., Kvintová, J. (2017). Workplace bullying - coping strategies of teachers. In da Silva Pereira, P. A., Titrek, O., & G. Sezen-Gultekin (Eds.), *Iclel 17 Conference Proceeding Book* (pp. 416-424). Sakarya: Iclel Conferences Sakarya University Faculty of Education.
- Einarsen, S., Raknes, B. R. I., & Matthiesen, S. B. (1994). Bullying and harassment at work and their relationships to work environment quality: An exploratory study. *European journal of work and organizational psychology*, 4(4), 381-401.
- Einarsen, S., Hoel, H., & Notelaers, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-Revised. *Work & Stress*, 23(1), 24-44.
- Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. L. (2011). The concept of bullying and harassment at work: The European tradition. In Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. L. (Eds.), *Bullying and harassment in the workplace* (pp. 3-40). London: Taylor & Francis.
- Fox, S., & Stallworth, L. E. (2005). Racial/ethnic bullying: Exploring links between bullying and racism in the US workplace. *Journal of vocational behavior*, 66(3), 438-456.
- Hornby, A. S., Ashby, M., & Wehmeier, S. (2005). *Oxford advanced learner's dictionary of current english*. 7. vyd. Oxford: Oxford University Press.
- Huber, B. (1995). *Psychický teror na pracovišti: Mobbing*. Martin: Neografie.
- Leymann, H. (1996) *The Mobbing Encyclopaedia* [online] [cit. 31-05-2019]. From: <http://www.leymann.se/English/frame.html>.
- Leymann, H., & Gustafsson, A. (1996). The content and development of mobbing at work. *European Journal of Work and Organizational Psychology*, 5(2), 165-184.
- Lorenz, K. (1963) *Das sogenannte Böse. Zur Naturgeschichte der Aggression*. Vienna: Dr. G. Borotha- Schoeler Verlag.
- Lorenz, K. (2002) *On Aggression*. London: Routledge.
- Mikkelsen E. G., & Einarsen. S. (2001). Bullying in Danish work-life: Prevalence and health correlates. *European journal of work and organizational psychology*, 10(4), 393-413.
- Paulík, K. (2010). *Psychologie lidské odolnosti*. Grada Publishing as.
- Rosenberg, M. (1965) *Society and the adolescent self-image*. New Jersey: Princeton.
- Řehulka, E., & Řehulková, O. (1998). Problematika tělesné a psychické zátěže při výkonu učitelského povolání. *Učitelé a zdraví*, 1, 99-104.
- Soft, S. (2013). *Statistica 12*. Tulsa, OK: Stat Soft Inc.
- Svobodová, L. (2008). *Nenechte se šikanovat kolegou-Mobbing-skrytá hrozba*. Praha: Grada Publishing a.s.



- Vartia, M. (2001). Consequences of workplace bullying with respect to the well-being of its targets and the observers of bullying. *Scandinavian Journal of Work, Environment & Health*, 27(1), 63–69.
- Zábrodská, K., & Květon, P. (2012). Šikana na pracovišti v prostředí českých univerzit: výskyt, formy a organizační souvislosti. *Sociologický časopis/Czech Sociological Review*, 48, 641-668.



Problems of Inequality in the Distribution of Income in Countries with Emerging Market Economies

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Abstract

The problem of income distribution, in the light of the integration and globalization of the world economy, the growing interdependence of countries, is becoming increasingly important for solving economic and social problems. As a result, the problem of uneven distribution of wealth in society, originating from the uneven distribution between labor and capital, as the primary stage of the distribution of the created gross domestic product, has turned from a problem of national scale into a global one. Uneven income distribution has the most contrasting character in developing countries, it threatens the long-term social and economic development of the country, adversely affects poverty reduction, the level of people's satisfaction with their work and life. This, in turn, can give rise to crimes, cause diseases and lead to environmental degradation.

Keywords: income distribution; inequalities; developing countries; partnership.

Introduction

The problem of income distribution, in the light of the integration and globalization of the world economy, and the growing interdependence of countries, is becoming increasingly important for solving economic and social problems. As a result, the problem of the uneven distribution of wealth between labor and capital, as the primary stage of the distribution of the created gross domestic product, has turned from a national scale problem into a global one. It was reflected not only in scientific studies of scientists from various countries of the world, but also in the "Agenda for Sustainable Development until 2030" (<https://www.un.org/sustainabledevelopment/ru/about/development-agenda>) adopted by the United Nations in 2015 and replacing the 2000 Millennium Declaration. The agenda includes 17 goals, including item 10 "Reducing inequalities within and between countries".

Uneven income distribution has the most contrasting character in developing countries, it threatens the long-term social and economic development of the country, adversely affects poverty reduction, the level of people's satisfaction with their work and life. This, in turn, can give rise to crimes, cause diseases and lead to environmental degradation.

The innovative development of the country, its economic growth rates, and the level of motivation of its human resources are in close dependence on the distribution strategy carried out between labor and capital. Of particular interest is a comparative analysis of the macroeconomic aspects of unevenness in developed and developing countries, the study and implementation of the experience of advanced countries. Of exceptional importance is the study of the causes and extent of this distribution in developing countries, the development of proposals for finding the optimal proportions of this distribution for these countries.

Method

The study used such methods as analysis and synthesis, grouping of statistical data for the purpose of comparative analysis of income distribution in countries with different levels of economic development, abstraction and system analysis to determine the relationship between productivity and remuneration of workers in developed and developing countries, to develop recommendations for improving distribution relations.

Findings



The problem of a fair distribution of income, researchers have been paying attention since ancient times. In particular, these questions were the subject of reflection and discussion of such famous ancient scholars as Plato and Aristotle, who tried to create a fair state. But the most detailed and deep problem of income distribution was considered classical economic (D. Ricardo), neoclassical (A. Marshall, J.B. Clark) schools, as well as in the works of Karl Marx, F. Engels, who considered it as a key factor in the destruction market economy.

The last few decades, especially after the collapse of the socialist systems in Europe, interest in this issue has increased significantly. Separate theoretical and practical issues of income distribution are considered in the writings of the ideologists of the social market economy: H. Lampert, O. Nell-Broinning, L. Erhard. The issues of determining the level and criterion of differentiation of incomes of the population, the influence of various factors on it were studied in the works of V. Pareto, J. Hicks, V. Oiken, M. Friedman, F. Modigliani, T. Veblen, J. Commons, J. G. Becker, J. Dyuzenberry, A. Sen. Of particular interest is the study of the impact of economic liberalization on the distribution of income between capital and labor on the development of the national economy, its impact on the level of pay and productivity. The analysis of this problem is given in the works of M.Gulaliyev, A. Ismailzade (M.Gulaliyev, A. Ismailzade, 2018); M.Gulaliyev, A. Ismailzade, (2019), in the monograph of T. Piketty - "Capital in the XXI Century" (2014) , L.M. Grigorieva, V.A. Pavlyushin (Вопросы экономики., 2018) and several others.

Nevertheless, it requires further study of the relationship between the development of institutional structures and the distribution of income, economic growth, productivity and wages of workers.

Statistical data of various authoritative research structures indicate a significant increase in the material well-being of the population in most countries of the world over the past 30 years. Thus, over the period 1990–2017, as a result of the rapid economic growth of world GDP at PPP, it reached \$ 116.7 trillion, that is, it grew 2.46.

Table 1. GDP, PPP (constant 2011 international \$), trillion \$.

Countries	1990	2017	2017/1990, in %
1.All world	47.419	116.773	246
2.High income	29525	53886	183
a.OECD	28911	51609	178
3.Low and middle income	17918	63.804	356
a. Middle East and Nort Africa(excluding high income)	1.832	4.699	256

Source: <https://data.worldbank.org/indicator/NY.GDP.MKTP.PP.KD>

From table 1 it follows that the highest growth rates in 1990–2017 were demonstrated by low- and middle-income developing countries.

An analysis of a shorter historical period, i.e. last 17 years (2000–2017), also confirms the persistence of higher economic growth rates in developing countries.

A feature of these last years is the slowdown in economic growth throughout the world, especially after the global financial and economic crisis of 2008–2009.

Table 2. GDP, PPP (constant 2011 international \$), trillion \$

Countries	2000	2017	2017/2000, in %
1.All world	63.627	116.773	184
2.High income	39.195	53.886	138
a.OECD	38.072	51.609	136
3.Low and middle income	24.472	63.804	258
a.Middle East and Nort Africa(excluding high	2.586	4.699	181



income)

Source: <https://data.worldbank.org/indicator/NY.GDP.MKTP.PP.KD>

However, while worldwide average annual growth rates in 2000–2017 compared with 1990–2017 decreased by 0.46%, and in developed countries by 0.97%, in developing countries and the countries of the Middle East and North Africa, respectively, by 0.2% and 1.04%. Thus, the quantitative growth of the economy in the world is largely ensured by developing countries, and its qualitative, technical and technological development is due to the most developed countries of the world.

In the context of the above, the study of growth rates and income distribution in developed and developing countries is of particular interest. As a period under review, we will take the years 2000-2017, as years of equalization of development rates in developing countries and reducing the income gap of these countries with the most developed.

Table 3. Dynamics of GDP per capita in developed and developing countries (current US \$) for 2000-2017

Countries	2000	2010	2015	2017	2000г.в%к 2017г.
1.All world	5.490	9.525	10.199	10.749	196
2.High income	25.019	38.185	39.244	41.352	165
a.Developed countries of the world					
USA	38.449	48.466	56.803	59.928	156
Germany	23.718	41.786	41.395	44.666	188
Japan	38.532	44.507	34.567	38.430	99,7
Norway	38.146	87.770	74.521	75.704	198
UK	27.982	39.079	44.472	39.954	143
3.Low and middle income/ in % US level	1.138	3.535	4.345	4.670	410,0
Developing countries					
China	959	4560	8.069	8.826	920
India	444	1361	1606	1.979	445
Russia	1771	10675	9135	10.749	607
Kazakhstan	1229	9070	10570	9.030	734
Belorussia	1276	6181	5949	5.733	449
Azerbaijan	655	4439	4131	5.500	839

Source: <https://data.worldbank.org/indicator/SP.POP.3034.MA.5Y?locations=XD-XO>

Undoubtedly, a positive fact is the growth of incomes of the population, at least in the form of GDP per capita. It allows you to solve many socio-economic processes. The vast majority of people act rationally, seeking to increase their income. They realize that this can be achieved through rational consumption and accumulation.

Over the past 17 years, GDP production per capita worldwide by 12% outpaced GDP growth. In this regard, it is possible to single out the developing countries with low and medium incomes, where this excess was 152%. In highly developed countries with the highest incomes, this difference was 27%, in favor of productivity. Such high growth rates in developing countries reduced the relative gap in per capita income between developing and developed countries from 22.2 times in 2000, to 8.5 times (11.3% compared to high-income countries) in 2017. The largest growth rates were demonstrated by such major countries of the developing world as China, India, and Russia.

As is well known, a valuable source of information on distribution relations is the level of distribution of GDP per employee employed, i.e. This is the level at which the primary distribution of goods and services produced.

Table 4. GDP per person employed (constant 2011 PPP \$)

	2000	2010	2015	2017
All world	24.294	30.592	34.232	35.705



2.High income	77.750	86.525	90.434	91.429
Developed countries of the world				
USA	92.140	107.882	112.080	112.677
Germany	82.267	85.500	87.942	89.748
Japan	66.277	72.101	74.642	75.235
Norway	11.2080	121.257	125.406	128.746
UK	70.742	76.671	79.627	80.848
3. Low and middle income	11.449	18.076	21.778	23.317
Developing countries				
China	6.470	16.830	24.267	27.645
India	6.836	12.078	15.898	17.546
Russia	31.399	46.808	50.663	51.813
Kazakhstan	21.932	39.733	47.094	49.019
Belorussia	17.929	32.265	33.987	34.303
Azerbaijan	11.524	34.437	34.904	32.771

Source: <https://data.worldbank.org/indicator/SP.POP.3034.MA.5Y?locations=XD-XO>

A comparison of the data in Tables 3 and 4 suggests a convergence of GDP growth rates per employee in developed and developing countries, as compared with GDP data per employee from 245% to 86%. At the level of the primary distribution of gross domestic product per employee, the gap between workers in developed and developing countries is smaller than per capita. As an indicator of uneven distribution of gross domestic product at the level of secondary and tertiary distribution in our opinion, we can consider the ratio of GDP per capita to GDP per employee.

Table 5. Ratio of GDP per capita to GDP per employee in developed and developing countries.

	2000	2010	2015	2017
All world	22,6	31	30	30
2.High income	32	44	43	45
Developed countries of the world				
USA	42	45	51	53
Germany	29	49	51	50
Japan	58	62	46	51
Norway	34	73	59	59
UK	39	51	56	49
3. Low and middle income	10	20	20	20
Developing countries				
China	15	27	33,3	32
India	6,5	11,2	10,1	11,2
Russia	5,6	23	18.0	20,7
Kazakhstan	5,6	23	22,4	18,4
Belorussia	7,1	19	17,5	16,7
Azerbaijan	5,7	11,9	11,8	16,8

Source: Calculated by the author on the database table. 3, 4

In 2017, in high-income countries and the most developed countries of the world (USA, Germany, Japan, etc.), per capita, respectively, accounted for 45, 50% and more than that of one employee. In contrast, in developing countries per capita accounts for between 11.2 and 32% of GDP distributed during the primary distribution. In our opinion, this ratio is the first most visible evidence of the uneven distribution of GDP in developing countries. More specifically, the country's dominant distribution of GDP in favor of capital.

Another important evidence of this distribution is the ratio in pay and its productivity. In the scientific and popular press often the multiple wage differences in developed countries are explained by the presence of higher productivity. Obviously, the more technologically advanced productions of developing countries make it possible for their employees to achieve higher productivity. But our analysis shows that there are other factors, primarily institutional ones.



Consider the ratio of GDP and the average wage per person employed in the countries listed for 2015.

Table 6. The ratio of the level of labor productivity and the average annual wage for a number of countries for 2015, in US dollars.

Countries	GDP per person employed	Average annual wage	Average salary per unit of productivity
USA	112.080	52.608	0,47
Germany	87.942	38.316	0,43
Japan	74.642	33.900	0,454
Norway	125.406	60.480	0,48
UK	79.627	60.989	0,77
China	21.630	8.800	0,41
India	14.681	2.700	0,184
Russia	46.903	6.696	0,143
Kazakhstan	46.769	6.588	0,141
Belorussia	39.154	4.980	0,127
Azerbaijan	34.886	3.636	0,104

Source: <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?location>

Material motivation of employees is an important factor in the development of high productivity and quality of work produced. This provision is of particular relevance in the increasingly complex factors of production, the use of production systems based on the extensive use of information technology. In a market economy, the goal of each participant is to maximize the income received, regardless of the form of its manifestation. An employee, or a participant in this system, who does not receive income adequate to his efforts, seeks to change the direction of his investments (regardless of its form, be it the cost of physical energy or capital). Getting enough for a given time and place, as well as socially fair income is a necessary condition for ensuring the sustainable and stable development of any business in a market economy.

In highly developed countries, this problem was largely solved. From 41 to 77% of the gross output produced by workers goes to them in the form of wages. Moreover, in the absolute majority of them there is full transparency in both the size and structure of the accrued wages and deductions from it.

Unfortunately, we see a different picture in developing countries. Only China has come very close in terms of average wages to the level of developed European countries. In all of the developing countries listed in Table 6, workers get less than 20% of their output. Thus, in developed countries, the ratio between capital and labor is 60: 40, and in developing countries (with the exception of China) 80:20, and according to calculations of other researchers -70: 30 (The Labor Share in G20 Economies. Report prepared for the G20 Employment Working Group Antalya, Turkey, 26-27 February 2015.p.4).

The extremely high level of uneven distribution between labor and capital in developing countries in comparison with developed countries is confirmed by a comparison of the level of wages and labor productivity in these countries.

Consider the relationship between labor productivity and average wages in Azerbaijan with a number of foreign countries.

Table 7. The ratio of labor productivity and wages in Azerbaijan and several other countries,2015y.

Countries	Labor productivity (per person employed)	According to the average wage
1.USA-Azerb.	3,2	14,5



2.Germany - Azerb.	2,4	10,5
3.Italy – Azerb.	2,5	4,8
4.China - Azerb.	0,62	2,6
5.India - Azerb.	0,42	0,78
6.Russia - Azerb.	1,34	1,94
7. Kazakhstan – Azerb.	1,34	1,91
8. Belorussia - AP	1,12	1,44

Source: data.worldbank.org/indicators/sl/GDP.PCAP.EM.KD; http://zarplatyinfo.ru/v_mire/srednyaya-zarplata-v-germanii-v-2015-2016-godu.html

Conclusion

The study conducted leads to the conclusion about the dominant uneven distribution between labor and capital in developing countries. Moreover, the lower the level of development, the greater the inequality (see tab.3,4,5,6). A more moderate change in the uneven distribution of gross domestic product occurred in the developed countries of Europe and Japan. The increasing uneven distribution of income in developing countries was accompanied by a record-high increase in per capita income (see table 5,6). This is confirmed by studies of the Laboratory of World Inequality (В. Г. Клинов, А. А. Вопросы экономики. 2018. № 7. с. 32.).

Obviously, an increase in the overall level of income in developing countries in the next 10 years will be accompanied by a further increase in the uneven distribution between capital and labor among citizens of these countries. This is due to the need to further increase investment in fixed capital, the concentration of these resources in the hands of the owners of the means of production, the development of unregulated income distribution among different strata and groups of the population.

Conclusions and Recommendations

The reasons for the dominance of a high level of uneven distribution can be divided into two groups: objective and subjective factors.

The first, objective reason for uneven distribution is the difference in institutional structure, which causes different access to capital.

The next, objective reason is the difference in the levels of development of people, their abilities and features of this historical stage of development. In our opinion, the high incomes of some groups of athletes, in comparison with scientists, is a manifestation of social injustice.

The third, objective reason is the problems of poor development of mechanisms for cooperation between owners and employees.

Subjective reasons are due to the existing mentality and individual productivity of employees. The solution to the problem of equalizing the uneven distribution of income in developing countries is seen in the development of public-private partnerships, corporate social responsibility, the development of small and medium-sized businesses, and increased access for a wider range of people to sources of capital.

References

<https://data.worldbank.org/indicator/NY.GDP.MKTP.PP.KD>



<https://www.un.org/sustainabledevelopment/ru/about/development-agenda>

- M.Gulaliev, A. Ismailzade, A. Azizov, F. Kazimov, R. Mir-Babayev. Assessing the degree of inequality in the distribution of national income and its macroeconomic consequences in Azerbaijan. AMAZONIA INVESTIGA, Vol. 7 Núm. 17 : 85 - 108 / Noviembre - diciembre 2018 2018;
- M.Gulaliev, A. Ismailzade, E. Mustafayev, S. Abasova, Sh.Bayramov. Liberalness potential of the economic models (Comparative analysis of China and Azerbaijan).PONTER, Vol. 75 | No. 1/1 | Jan 2019.2019,
- T. Piketty . “Capital in the XXI Century”. Paris (2014) , p.612
- The Labor Share in G20 Economies. Report prepared for the G20 Employment Working Group Antalya, Turkey, 26-27 February 2015.p.4;
- В. Г. Клинов, А. А. Сидоров Мировые тенденции в распределении доходов и проблемы социально-экономического развития. Вопросы экономики. 2018. № 7. с. 32
- В.Клинов. Сдвиги в распределении доходов между трудом и капиталом:факторы, последствия и проблемы регулирования.Вопр.экон., 2016,№7,с.65.
- Л. М. Григорьев, В. А. Павлюшина. Межстрановое неравенство:динамика и проблема стадий развития. Вопросы экономики. 2018. № 7. С. 5—29.



The Role of International Standards in Improving the Quality of Enterprises

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Abstract

One of the main problems facing organizations that exist today is adapting to the conditions of market economy and to protect the position it has reached in the market. Recently, as the main result of the rapid development of science and technology the world economy put the high quality of produced products and offered services to enterprises as the main requirement. Therefore, entrepreneurs prefer the use of International Standards that have been tested successfully by many enterprises in many developed countries around the world. Compliance with these requirements will give the company the advantages of increasing image, profits, reducing production costs and losses, as well as access to the international market. High quality of the product, its competitiveness and very easy access to foreign markets are achieved by implementing the requirements of International standards such as ISO 9001, GOST P ISO 9001, EQS, GMP, HACCP, QS 9000, OHSAS 18001 etc.

Keywords: International Standards, quality, enterprises, products.

Introduction

As economic reforms are developing in modern conditions, quality has shown itself as a sphere of focus. Quality has proven to be of great potential in modern times as one of the foundations of the economic and social development of different countries. At present, the main challenge facing enterprises is the creation of a quality system that ensures the production of competitive products and that the system is always in operation. The experience of developed countries shows that improving the quality is a powerful force that affects the economy. In order to ensure dynamic development of the enterprise, increase sales, customer satisfaction and trust, each organization should determine the quality system, which, in its turn, is possible by applying international standards. Because foreign organizations and buyers in the international market prefer the organization that meets the requirements of international standards from the organization that has two analogical products. Thus, the application of international standards in business subjects is the most effective and affordable way for increasing competitiveness of products and services in the world market. Enterprises should build a quality system based on the requirements of international standards; the system should be fully accessible to all workers, including the management, regularly making necessary changes and improvements, and the steps to be taken, as well as the specificity of each firm during the implementation.



1. What is Quality?

Quality is seen as the basic condition for the existence, growth and development of the enterprises. This understanding is strikingly expressed by such utterances as “today's quality is the assurance of tomorrow” or “promoting quality is securing the future”. The concept of quality is a very unclear concept. Quality is often understood as “quality of goods and services” or “product quality”. However, there are many factors that bring out product quality and all these elements constitute a dimension of quality in itself. Product quality is essentially the result. The main quality elements that determine this result are:

- leadership quality,
- management quality,
- human quality,
- system quality,
- process quality,
- hardware quality.

The words of the famous Japanese management scientist Masaaki Imai put it very well: “When it comes to quality, product quality is often the first thing that comes to mind. However, this is not true ... There are three building blocks: hardware, software and human ware. Quality starts with people. Hardware and application rules can only be mentioned after the human is placed in the right place.” (Imai, 1997; 41-42.) Another famous Japanese quality expert, Kaoru Ishikawa, defines quality as follows: “In a narrow sense, quality means product quality. In a broad sense it is quality, work quality, service quality, communication quality, process quality, people quality, system quality, firm quality, quality of objectives, etc. (Ishikawa, 1995; 47.)

Another quality expert, Joseph M. Juran, defines quality as suitability for use, while Philip B. Crosby defines “quality is conformity to desired properties”. (Hunter, 1993). Quality In ISO 9000. All of the features that are based on the ability of a product or service to meet specified needs. Based on the various quality definitions given above, we can say that quality is a philosophy of life and understanding of life. Because quality contributes to increase customer satisfaction, competitiveness and profit of enterprises, employee satisfaction, decrease in costs and expansion of market shares of enterprises. Quality begins with the plan-do-check-act (PDCA) cycle and the standard of compliance (scheme 1).

2. International Standards

Over time, scientific innovations are rapidly replacing each other, and consumers' demand for products and services is growing. Payment of such requests requires certain costs and funds. The “high quality” demand of the consumer leads to high costs and costs. For this reason, most manufacturers use low-quality materials, raw materials, or do not follow the rules applicable in the production process to reduce costs. This may lead to a decrease in the quality of the product produced, damage to the health of the employees, consumers and the environment involved in the production process and bankruptcy of the producer. Therefore, there was a need for the development of a system that provides both quality security to both workers and consumers, providing high quality with less cost and less funding. It would be appropriate to apply standardized technical documents, which are standard projects developed by reputable international organizations and periodically renewed by major manufacturers and organizations. International standards are very different depending on the field of application, and in the developed countries of the world, giants have made a lot of money thanks to the implementation of these standards. Normative documents, including guidelines for the implementation of these standards, have been developed by the relevant International



Organizations. Although some countries have implemented these standards, many have adapted and harmonized the standardized project with national standards.

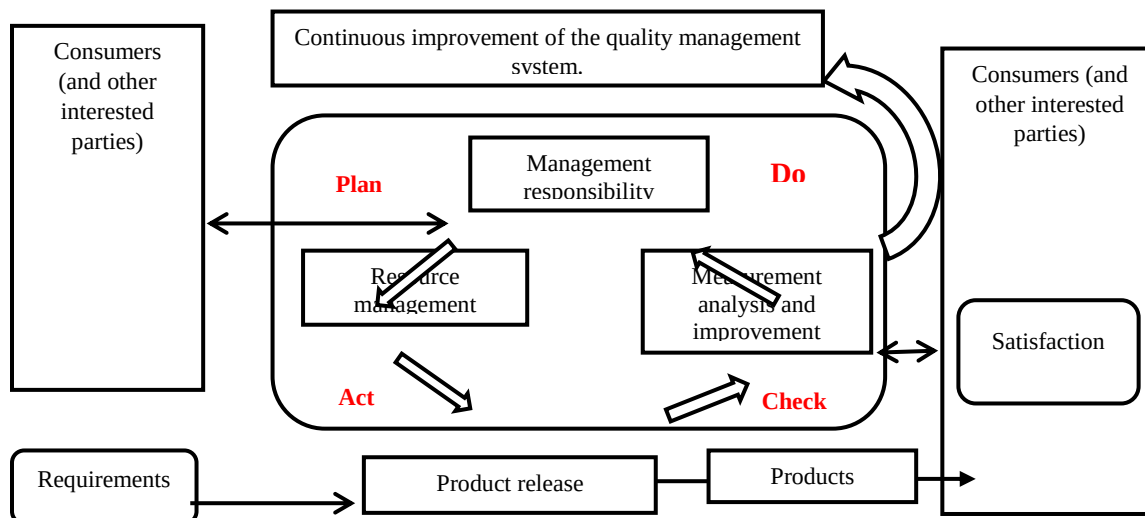


Figure 1. Basic provisions for the introduction of a quality management system, ISO quality management guidelines, reference books.

Professor C. Storz found that many companies have implemented ISO 9000 Quality Management as partial or empty "barking" as a result of research in Japan and some other countries. That is, the reputation of the standard is used to gain customer confidence, but its requirements are not met, there is no relevant record and everything remains in its original form. However, if the standard applies to eligible production process participants, resources, procurement, transport and storage, significant improvements and large amounts of revenue can be generated along with the various stages. This can be seen from the research of many researchers based on world practice. Since the establishment of the first quality standards in the world practice, these standards have been tested by companies operating in many different fields and the results obtained have been continuously improved. These standards include ISO 9001, GOST P ISO 9001, EQS, GMP, HACCP, QS 9000, OHSAS 18001 and others. can be an example.

2.1. ISO International Standards

Currently, the most common international standard for quality improvement and low costs in most countries around the world is the ISO 9000 series of standards. The ISO 9000 standard family is including ISO 9000, ISO 9001, ISO 9004 and ISO 19011 standards, and is used for quality management and quality system setup. There are hundreds of accredited bodies in the world that carry out certification on this standard.

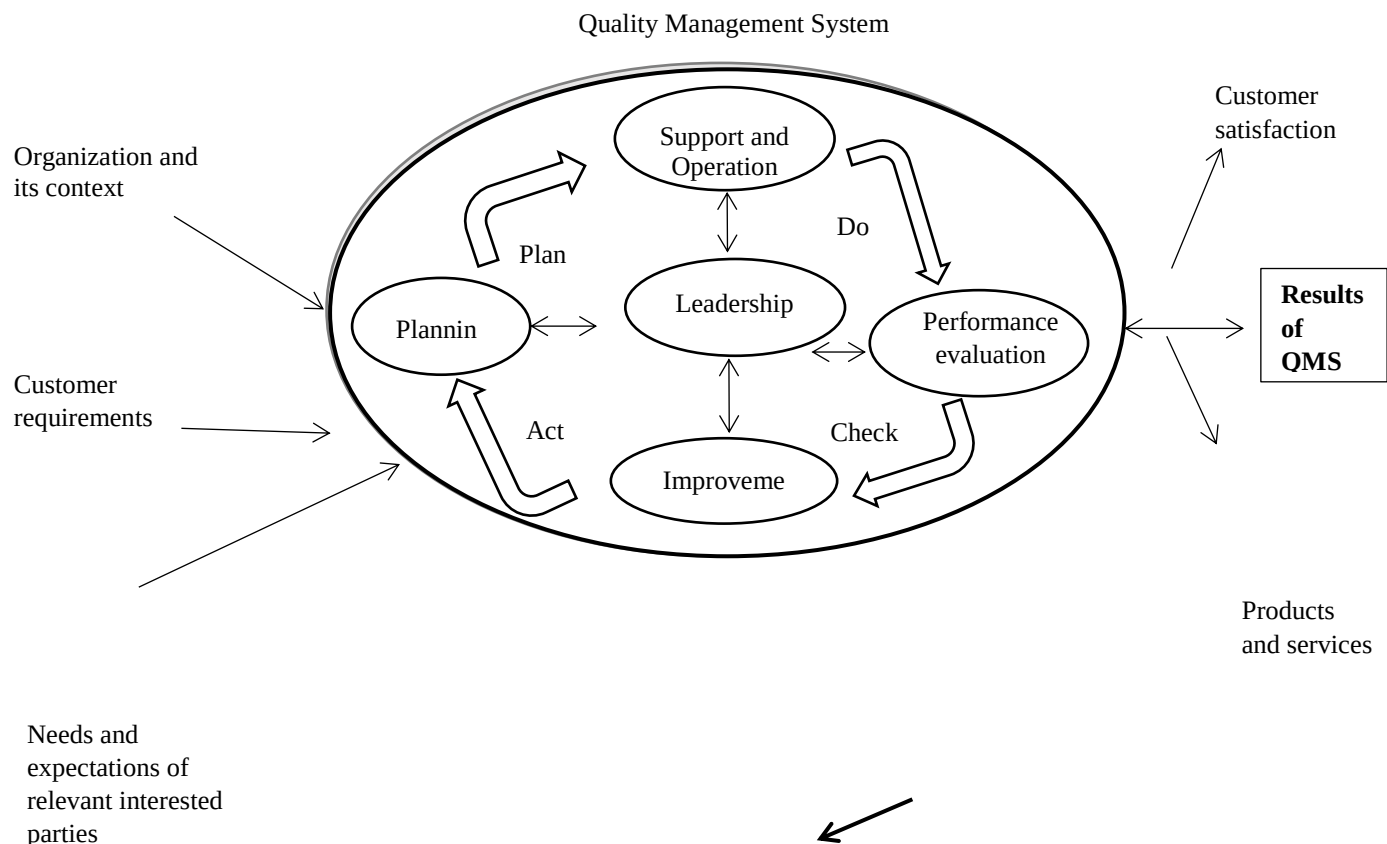


Figure 2. Implementing QMS according to ISO 9000

The application of this standard in enterprises and organizations, as well as certification of this standard, is entirely voluntary. The standard is applied gradually to all stages of production. The standard also encompasses employees' training by increasing their qualifications and competences and motivating them in different ways.

The process-based quality management system model is shown in figure 2. This illustration shows that there are some inputs in this process like customers' requirements, needs and expectations of interested parties. The output of the process is the result of the QMS that incorporates the organization's products and services, which should lead to customer satisfaction. The model shown here covers all the requirements of this International Standard [14].

The standard is reviewed every five years considering the disadvantages and making appropriate adjustments. The following five major objectives were identified in the 2000 revision of the Standard:

1. Meet the needs of producers, consumers and stakeholders.
2. Being beneficial to every size organization.
3. Availability in all areas.
4. Simple and easy to understand.
5. Coordination and integration of the quality management system with business processes.

Later, the standard was revised in 2008 and 2015. Finally, quality management principles have been added to the standard. These include customer focus, leadership management, employee engagement, process approach, approach



to management system, sustainable development, decision-making on facts, and mutually beneficial relationships with suppliers.

Here are some results of implementing ISO 9001 standard by different stakeholders, Bosch Communications applied this standards requirements : in just 11 months and earned certification to ISO 9001, also to AS9100 which is the international QMS standard for the aerospace industry. the U.S. Department of Agriculture's Process Verified Program used the ISO 9001 standard in order to estimate the quality management systems of enterprises which are operating in the agricultural sector. In the procurement process, suppliers are required to meet the requirements of ISO 9001 as suppliers' criteria and to require quality assurance managers to become ASQ Certified Quality Auditors. This, in turn, helps save millions of dollars in air force, and the supplier can predict critical defects in products and services.

Since the application of this standard is based on auditing and evaluation of audit results, appropriate procedures are being prepared to carry out the audit based on the requirements of ISO 19011. There are 6 phases for the audit, which include initiating the audit, preparing the audit, conducting the audit, the preparation and dissemination of the audit report, the completion of the audit and its execution. (SFS-EN ISO 19011, 2011.)

2.2. Environmental Quality Standards (EQS)

In 2008, the European Parliament and Council first issued the Environmental Quality Standards Directive. In order to achieve good surface water chemical status and in accordance with the provisions and purposes of Article 4 of this Directive, this publication provides priority substances and environmental quality standards (EQS) for certain pollutants as foreseen in Article 16 of the Water Framework Directive 2000/60 / EC (WFD) reveals. As a European directive, each Member State has a plan to assess water objects and comply with annual average and maximum concentrations, as shown in the document. (<https://www.aweimagazine.com/article/environmental-quality-standards-1177>)

The original EQS (2008) supporting documentation 3 does give some guidance on standard analytical methods that may be employed for the analysis of pollutants; however, even at this time it was acknowledged that standard methods may not meet the required levels and since 2013 most of the EQS levels have been revised to lower values. EQS levels are largely derived from ecological and human toxicology data 4 and as such are not necessarily representative of what existing laboratory techniques are able to deliver, hence the setting of an EQS is a key driver in the innovation cycle for new and improved techniques.

Achievement of EQS should bring a considerable number of benefits, but it is difficult to quantify these on the basis of the information available. The reduction of water pollution levels will bring several direct economic benefits. First and foremost, reducing pollution levels will reduce treatment costs for some major water uses, in particular drinking water and process water for industry. Second, the proposed measures will lead to cleaner sediment, which means reduced inputs of harmful substances and hence cheaper management of waste during dredging operations because of the lower contamination. Third, the requirement to reduce losses of substances into the environment will trigger the development and commercialization of cleaning - and cleaner - technologies.

Fourth, cleaner water will improve the quality of the fish and shellfish which are sold by the fishing or fish-farming industries. Cleaner waters will improve productivity and reduce the accumulation of dangerous substances in fish tissue, thereby reducing human exposure to hazardous substances.



2.3. Good Manufacturing Practice (GMP)

GMP is not informed of how the products are produced. There are some common principles that need to be checked during production. There are many ways to follow GMP principles when planning an enterprise quality system and production process. The choice of the most effective and productive path is in the hands of the enterprise. The formalization of GMP commenced in the 1960s and they are now in effect in over 100 countries ranging from Afghanistan to Zimbabwe.

The GMP is based on Good Manufacturing Practice Guidelines published by the US Food and Drug Administration, the Federal Food, Drug and Cosmetic Act. This regulation requires proactive steps to ensure that manufacturers and medicines, medical devices and certain food and blood packaging products are safe, clean and effective. GMP rules require a qualitative approach to production and allow companies to minimize or eliminate contamination, mixing and faulty samples. This protects consumers from buying an ineffective or even dangerous product. Failure to comply with GMP rules will result in punishments.

Worldwide, there are now around 30 different official national and super national statements on GMP. These have been published variously as guides, codes and regulations and of the 30 or so of them, two stand out as being the most influential and most frequently referenced: The United States Current Good Manufacturing Practice (cGMP) Regulations and the European Commission's "Good Manufacturing Practices for Medicinal Products for Human and Veterinary Use". Third, WHO (World Health Organization) version of GMP is used in pharmaceutical regulators and pharmaceutical industries in more than 100 countries worldwide. (Nally, 2007).

All GMP rules are based on several principles:

- They should minimize the quality risks during the production and distribution of drugs.
- Hygiene rules must be observed in production areas, laboratories and warehouses.
- Working conditions and operating principles should be checked to prevent contamination of pharmaceutical products.
- Production processes must be clearly defined, approved and monitored to ensure compliance with the Guidelines.
- Instructions should be clearly and clearly stated.
- Throughout the life of the product, the process should be monitored and improvements should be maintained if necessary.
- The system must be available to recall any batch of goods.
- Complaints about the products sold should be investigated, the causes of quality defects should be clarified and preventive measures should be taken against defective products.

2.4. Hazard Analysis and Critical Control Point (HACCP)

The foundations of the HACCP system were laid at Pillsbury, a company that produces food for NASA (American National Aerospace Association). NASA asked the company to produce 100% safe foods for space programs. As the existing security systems were insufficient, a new method had to be developed and Pillsbury Company has worked together with NASA, Natic Laboratories of the American Armed Forces and the American Air Force Space Laboratory project team (Bauman, 1995: 1). Although the first step for the HACCP system was taken in 1959, it was officially announced to the public in 1971 at the National Food Preservation Conference. After this opening, the first HACCP document was published for FDA (Food and Drug Administration) in 1973 and the company trained FDA inspectors (Bauman, 1994: 67). In 1991, the Codex Alimentarius Committee on Food Hygiene, consisting of



international FAO-WHO joint experts, launched an initiative to prepare a guideline for the international applicability of the HACCP system and was published in 1993 (Bauman, 1995: 2). HACCP is a management system that aims to control the safety hazards that may arise in food and is accepted as the best approach by many institutions and scientists (Khandke and Mayes, 1998: 103). By identifying, assessing and controlling the hazards that may arise, it is aimed to prevent hazards before they exist. Unlike other systems, it does not rely on control of the final product. It is a proactive approach that intervenes in the whole process (FDA, 2004: 1). The basic principle for the success of food safety management is to establish a system in which HACCP, prerequisite programs and safe process design are carried out together and verify the applicability.

2.5 Occupational Health and Safety Assessment Series (OHSAS 18001)

In the modern world, expectations from customers and consumers have increased dramatically. The term “quality” questions the extent to which businesses comply with occupational health and safety requirements, and whether they have a safe and healthy working environment for the interested parties and their ongoing development. The BS 8800 Occupational Health and Safety Management Guide, was published in 1996 by the British Standards Institute (BSI) and it was the first standard instruction on health and safety. At the same time, standards were published in other documentary institutions. However, these standards differed in content and practice. Subsequently, a commission was established in the United Kingdom to establish an internationally recognized health and safety standard by BSI, and as a result of the Commission's work, the OHSAS 18001 standard, shortened by combining the first letters of the Occupational Health and Safety Assessment Series, was created in 1999. OHSAS 18001 is a risk analysis management system developed for heavy and hazardous workplaces worldwide.

OHSAS 18001 specifies the conditions of workplaces that want to minimize work-related accidents and occupational diseases and meet legal requirements for occupational health and safety. This management system aims to take necessary precautionary measures by prioritizing and minimizing potential hazards.

1. Protecting employees: Protect employees from the harmful effects of the workplace and ensure that they work in a comfortable and safe environment.
2. Ensure production safety: Minimize labor and workday losses due to work accidents and occupational diseases, thus improving work efficiency
3. Ensure the safety of the enterprise: fire, explosion, equipment damage prevention in the building, measures taken in the activity area.

Method

This article provides a literature review to describe international standards, their role and benefits in companies. Thus, a computer search was made. Studies on international standards were investigated. These studies have been reviewed to determine the most common profits and advantages of applying international standards based on literature.

Finding

The standards ensure that the quality of the products and the safety requirements are met as they are prepared using the latest technologies (CEN-CENELEC-ETSI, 2010). In this way, the companies have a competitive advantage in the market as they can offer better quality and safer products and services. The implementation of ISO 9001 Quality Management Systems puts companies in a superior position in the market.



Lee divides the gain from the implementation of the standards into three parts: benefits from internal operations, benefits from customer relations, benefit from relations with subcontractors.

Examples of benefits from internal operations include increased team spirit, reduced worker conflicts, prevention of waste and others. Benefits from Customer Relations include increased sales as a result of new customers arriving, receiving fewer complaints from existing customers, and extending contract terms with customers. The benefits obtained from relations with subcontractors can be demonstrated by certification of subcontractors, establishing better relationships with subcontractors, and improving control of subcontractors (Lee, T.Y. (1998).

Nield and Kozak saw the benefits of implementing international standards in improved communication systems, increased customer satisfaction, increased competitive advantage, nationwide recognition, and positive changes in human resources (Nield, K., & Kozak, M. (1999)) Casadesus and Karapetrovic said these benefits result in financial results, operational results and customer-related results(Casadesús, M., & Karapetrovic, S. (2005))

By applying international standards, many businesses use the benefits it brings. For example, the application of ISO 9001 improves documentation and operating instructions.

Examples of other benefits that businesses can receive include improving their image and improving the quality of their products and services, as well as having a certificate that enhances their image in the eyes of their customers. At the same time, greater control over internal processes can improve the quality of the product or service.

The EQS application provides the community with the following benefits:

- Maintain high-quality areas that grow rare plants and live animals
- Protecting water basins and wetlands to prevent soil erosion, floods
- Provide them with clean water to meet the needs of society
- Encourage society to be environmentally conscious
- Improve air quality
- To prepare effective and cost effective waste recycling programs the OHSAS 18001 application provides the business with the following benefits:
 - Prevents most cases of workplace death, illness, injury, property loss and other losses
 - Provides protection of resources by integrating occupational health and safety activities with other activities.
 - The value given to occupational health and safety activities reflects the management's attitude.
 - Ensures the credibility of the enterprise in society by increasing the credibility of the enterprise.
 - Increases employee motivation and participation, increases trust and loyalty to the business.
 - Occupational diseases and accidents are reduced and labor loss is prevented.
 - Provides better health and safety risks both today and in the future.
 - Customer satisfaction and loyalty are beneficial.
 - Reduces penalties and compensation by preventing and slowing down production due to accidents and diseases, minimizing financial costs.

GMPs are a set of industry best practices to help ensure the safety, quality and efficacy of a natural health product. The implementation of GMPs will help reassure consumers that the same level of care and testing is found throughout the industry.



There are many benefits for companies who implement a fully-compliant GMP program, which will substantially increase the quality of their product, and increase revenues and customer satisfaction. Some of the benefits from a proactive approach to a compliant GMP program include:

1. Operating costs drop as rework and penalties due to non-compliance reduce and efficiencies increase.
2. Help customers, employees, stockholders, regulators and competitors develop sustainable respect for an organization which demonstrates commitment to NHP safety
3. Preparation for HACCP certification
4. They can use online newsletters and other internet forums to educate their customer

With the introduction of HACCP-based processes, the following advantages are achieved:

- Protects investments
- Prevents damage to customer health
- Food safety standards rise
- Complies with the Manufacturing Act
- Food quality standards are rising
- Simplify the process of producing safe food
- Increases teamwork and labor productivity among employees.

The most commonly used standards in Baltika Breweries, established in 1990, can be found in ISO 9001: 2008, ISO 14001: 2004, OHSAS 18001: 2007, HACCP, FSSC 22000, ISO 22000, ISO 10002: 2004, European Brewery Convention standards (for malt and beer), Many GOST standards (for malt and beer, storage, after-sales service), Federal regulations for the transport of food and beverages. The economic benefits of the standards were US \$ 94.1 million.

Established in the Senegalese capital Dakar in December 1995, the Senegal des Eaux (SDE) played a key role in establishing a reliable urban drinking water system for the country. In the enterprise widely used in ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, Some French national standards on water quality and testing, Some Senegalese national standards on water discharge and air pollution. The economic benefits of the standards were US \$ 2.77 million.

Holcim Lebanon S.A.L. (HL), was founded in 1929 by Swiss Holcim Ltd., one of the largest cement producers in Lebanon. as a subsidiary of the company. Over the years, it has created an enterprise image that offers ecologically clean and high quality products among its customers. Holcim Lebanon is currently the leading cement producer. In the enterprise widely used in ISO 9001:2008, ISO 14001:2004, NL 53:1999, Cements - Portland cement types (Lebanese national standard), European standards (EN) on cement composition and testing, Some ASTM standards on cement. In 2001-2011, the entity gained a profit of US \$ 1.1 million from the application of standards. https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/ebs_case_studies_factsheets.pdf

Results, Conclusions and Recommendations

Businesses achieve the following advantages by applying international standards:

1. By demanding a quality management system that reflects modern needs from its suppliers, it can consistently provide high quality raw materials, this makes it possible to reduce the number of laboratory tests and to transfer some laboratory personnel to other operations.



2. The Management System, based on ISO 9001 and ISO 14001, has a positive effect on labor productivity labor productivity by facilitating processes, uniting acquisitions and optimizing collaboration between factories.
3. The company achieves strict control over the production processes thanks to the ISO 9001 quality management system and helps it gain a reputation as a high quality manufacturer.
4. Standards and certification marks are clearly identified in the company's product catalogs and emphasize the importance the company attaches to standards as a means of gaining international reputation and entering foreign markets.
5. International food and hygiene standards provide a solid framework, simple objectives and clear criteria. It also supports documentation, information exchange and information transfer and provides a basis for meeting the essential elements, performance indicators, key elements, and quality and safety requirements that are essential to conducting the company's fully automated processes.
6. Standards simplify the design selection process and at the same time lead to regular manufacturing and installation of equipment and components that help improve design quality and work efficiency.
7. Good product quality reduces waste, increases customer confidence and enables the company to sell higher value goods, thereby increasing revenue.
8. Standards helped establish a culture of continuous development in the company.
9. Standard development and early adoption of the standards provide the company leadership in its field.
10. Applying standards continuously improves environmental performance and cost reduction due to product quality and material savings.
11. Standards help create a culture of quality consciousness at all levels of the company.
12. Standards help manage business operations more reliably and efficiently.
13. Standards help to create a comprehensive distribution network as well as productive, quality production and product branding.
14. Improving environmental and safety management strengthens the company's reputation, while productive service enhances customer satisfaction

References

- Bauman, Howard E. (1994). The Origin Of The HACCP System And Subsequent Evolution. Food & Science Technology Today. Volume 8: 66-72. Bauman, Howard E. (1995). The Origin And Concept Of HACCP. Advances in Meat Research. Volume: 10, 1-7.
- Bauman, Howard E. (1995). The Origin And Concept Of HACCP. Advances in Meat Research. Volume: 10, 1-7.
- Casadesús, M., & Karapetrovic, S. (2005). The erosion of ISO 9000 benefits: a temporal study. International Journal of Quality & Reliability Management, 22(2), 120-36.
- CEN-CENELEC-ETSI, (2010), Standards Supports Innovation and Growth, Avrupa Standart Kuruluşları Kitapçığı, Brüksel.
- FDA. (Food and Drug Administration) (2004). U. S. Department Of Health and Human Services Public Health Service Food and Drug Administration 2001 Food Code (Updated April 2004) <http://vm.cfsan.fda.gov/~acrobat/fcannex5.pdf>. (28.10.2007).
- HUNT, V. Daniel, Quality Management for Government: A Guide to Federal, State and Local Implementation, Milwaukee, Wis.: ASQC Quality Press, 1993.
- <https://www.aweimagazine.com/article/environmental-quality-standards-1177>
- https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/ebs_case_studies_factsheets.pdf
- <http://isoconsultantpune.com/apb-consultant-process-approach/> Pretesh Biswas
- IMAİ, Masaaki ,. Kaizen -Japonya'nın Rekabetteki Başarısının Anahtarı- İstanbul: BRİSA Yayını, 1997.



ISHIKAWA, Kaoru, Toplam Kalite Kontrol, İstanbul: KalDer Yayınları, 1995.

Lee, T.Y. (1998). The development of ISO 9000 certification and the future of quality management: a survey of certification firms in Hong Kong. International Journal of Quality & Reliability Management, 15(2), 162-77

Nally, J. D. (Ed.) (2007). Good Manufacturing Practices for Pharmaceuticals, Sixth Edition, Informa Healthcare USA, Inc., ISBN 10: 0-8593-3972-3 & ISBN 13: 978-0-8493-3972- 1, New York

Nield, K., & Kozak, M. (1999). Quality certification in the hospitality industry: analyzing the benefits of ISO 9000. The Cornell Hotel and Restaurant Administration Quarterly



Lifelong Learning for Teachers with High and Low Agreeableness

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Abstract

It is a lifelong goal for teachers to learn to successfully exploit their strengths and weaknesses to complete their personal and professional development. The study presents a comparative analysis of the personality structure of high and low agreeable teachers and illustrates certain benefits and drawbacks of both target groups, which definitely impacts their well-being, teacher efficacy and relationship with students. The paper examines the links between teacher agreeableness and their personality type, self-esteem and anxiety rates in a sample of 182 teacher candidates from Suleyman Demirel University, Kazakhstan. Pearson correlation analyses revealed that higher levels of Agreeableness correlate with higher anxiety and lower self-esteem rates, which predicts paying a certain cost for being very agreeable. Moreover, close bonds were observed between high agreeableness and more feeling type – warm and kind; low agreeableness and more thinking type-cold-minded and fair. The study highlights the lifelong learning opportunities: it is recommended finding out the ways to enhance teacher self-awareness and develop an optimal level of agreeableness.

Key words: teacher agreeableness, personality type, self-esteem, anxiety, professional productivity

Introduction

Agreeableness being one of the ‘big five’ personality dimensions has for decades been the focus of psychology research. It measures your attitude towards kindness and trust, predicts psychological well-being and mental health, fosters positive affect and warm relations with others. Being agreeable shows your sincere desire to harmonize with environment. Scientists maintain that an individual who is highly agreeable demonstrates pro-social forms of behavior and tends to be an excellent team worker and a ‘peacemaker’ of a group. Research has proved that the older we are the more agreeable we become. (Donnelan et al, 2009). Previous studies concluded that agreeableness reaches a peak by 60, and the mean-level improves from age 30 to 40 (Specht et al., 2011). Women generally score higher on agreeableness than men. Therefore, it takes time to learn to be more agreeable.

Though agreeableness has been scientifically explored for more than eighty years, it is still the trait that is frequently misunderstood. As can be seen from literature findings, those who score high in agreeableness look much more in a positive light and seem desirable and rewarding for other people. Researchers argue, however, that both low and high agreeable individuals possess certain drawbacks. For example, due to their selfless, frank and humble personality highly agreeable individuals avoid hurting people, tend to overwork and have health



problems. Moreover, they may not be satisfied with their career since it is unsafe for them to ask for more salary or promotion (Duckworth, Weir, Tsukayama, & Kwok, 2012; Judge, Livingston, & Hurst, 2012). Besides, as they like to conform, they would prefer templates rather than tolerate diversity and innovation (Mike Lehr, 2017). In contrast to high scorers, less agreeable people tend to make difficult decisions, confront lower performance, and achieve higher status at work (Owens, M., Truity, M. 2015). As concerns dark sides of low agreeable persons, they generally become unpopular due to their favorite strategies such as intimidation and manipulation. In addition, as they lack trust and develop suspicion, they tend to compete more, become aggressive and finally lose friends and genuine respect at work and in the family. Quite on the contrary, high agreeable individuals are good at maintaining harmony and regulating emotions, which allows them to be more likable and enjoy happier marriage and longevity (Laursen B.; Pulkkinen L.; Adams R., 2002). Interestingly, it is much more difficult for high agreeable people to be harsh and callous than for low agreeable to be nice when it is needed. This ability to pretend in order to achieve own goals helps low agreeable people to be successful in any endeavor.

Despite certain drawbacks a high degree of agreeableness is considered important for successful pedagogic work. A good teacher is expected to be friendly, cooperative, warm and tolerant. All students undoubtedly want their teachers to treat them with respect and understanding, which is also related to agreeableness. Moreover, high agreeableness is proved to 'fit well into a knowledge-sharing intensive environment such as the teaching and learning profession' (Pei-Lee Teh, Siew Yong Yew et al., 2011). Obviously, agreeable teachers feel good in their job and personal life since "agreeableness may be the path to enduring interpersonal relationships, happiness, success, and well-being" (Jensen-Campbell L., Graziano W., 2001). Unfortunately, the review of the literature about agreeable and disagreeable teachers gives poor analysis.

To what extent is agreeableness desirable for teachers? Do students prefer Agreeable teachers? In the study by Göncz et al. (2014) it is suggested that students preferred their teachers to have characteristics that contributed to pleasant interpersonal relations. Besides, students' self-evaluations for the dimensions of openness, agreeableness and neuroticism were better predictors of expectations of good teachers than self-evaluations of extraversion and conscientiousness. This study also revealed that agreeable teachers are mostly welcome among the social and humanistic sciences rather than at natural and technical ones. Dammar Singh Saud (2017) in his presentation about college teachers proposed three categories of professors: the positive teachers, the neutral teachers and the negative teachers. In order to avoid stereotypes, the author suggests evaluating teachers by their performance and personality characteristics. Interestingly, the first quality he uses to describe these teachers is Agreeableness. So, the Positive Teachers are the most agreeable teachers and the Negative Teachers are the least agreeable teachers. It is evident, students would vote for the Positive Teachers who rank high on agreeableness.

What makes agreeable teachers so popular? Perlman and McCann (1998) investigated students' pet peeves about teaching and reported most common answers. It appeared that the worst teachers are those who respond to questions in a hostile, intimidating manner; demonstrate intellectual arrogance and talk down; are not approachable and disrespecting; intolerant of questions and insensitive to students' time limits. No doubt, students were describing disagreeable teachers. On the contrary, if teachers are high on agreeableness and communicate with students with mutual respect and reciprocity, then knowledge sharing among them would yield positive results (Dzandu et al., 2014). Renee A. Scheepers (2014) summarized that since agreeable teachers tend to avoid confrontations, then stimulating the development of the right balance between agreeable and confrontational behavior could be useful in enhancing teaching skills. A valuable finding was published by Pacale Benoliel and Anit Somech (2010) in the paper "Who Benefits from Participative management?" As such management requires a fairly high level of interpersonal interaction, highly agreeable teachers with their tolerance, selflessness, and flexibility may be better suited to a participative management environment than



teachers low in agreeableness. The literature suggests that agreeableness involves getting along with others in pleasant and satisfying relationships (Judge et al., 2002).

What makes agreeable teachers feel satisfied with their job? Agamani Mondal and Birbal Saha (2017) explored the relationship between job satisfaction of secondary school teachers and personality and Emotional Intelligence. They found out that agreeable teachers are highly satisfied with their teaching job because they receive intrinsic motivation from strong interpersonal skills and enjoy prosaic relationships with students and colleagues. Not only they enjoy the process but also accomplish all tasks conscientiously. Studying the links between teacher personality traits and teachers' attitudes to family-school partnership, Anna Rawlings (2010) also underlined prosocial and intrinsic motivation found in agreeable teachers, which helped them to build a trustful relationship with parents. Such teacher traits as warmth and sensitivity are proved to foster the development of a partnership. It seems a highly agreeable teacher would find engaging in relationships and specific practices to be meaningful and a necessary component of student success.

Obviously, personality structure of high and low agreeable teachers should differ and this difference will motivate them to adapt differently to various challenges in their professional life. Both high and low agreeable teachers are intellectually and emotionally involved in the educational process and affected by everything that takes place in and around the classroom, as well as the opinion of students, colleagues, parents and administration. It means that there is a certain impact of teacher agreeableness on their self-esteem and anxiety. If this is so, then it is worthwhile to understand whether it has positive or negative influence on professional and personality beliefs of the teacher and find out the ways to enhance teacher self-awareness and develop an optimal level of agreeableness. Consequently, these steps will definitely contribute to better job satisfaction, mental and emotional health; finally, lead to higher professional productivity.

In the final theory analysis, Agreeableness as a personality trait has been given a lot of attention in scientific literature. There have been illustrated bright and dark sides of agreeableness and some attempts to correlate this important dimension with other personality constructs and behavioral patterns. However, not all of these findings are complete and met consensus. Very few articles mention teacher agreeableness and do this tentatively with full respect to this category. We failed to read a paper devoted to agreeable teachers. Therefore, there is still a gap in the scientific evidence about agreeable/disagreeable teachers, their gains and pains, their contribution to the educational process; finally, the impact of teacher agreeableness on self-esteem and anxiety. Thus, the present study has intention to shed light on this problem and expand valuable knowledge about individual differences in teacher personality and professional development.

The problem of the current research is to examine personality structure of high and low agreeable teachers and illustrate certain benefits and drawbacks of both target groups. Hence, the objectives of the study are the following:

- 1) to explore teacher agreeableness
- 2) to identify and compare teachers with High and Low Agreeableness
- 3) to investigate associations between
 - teacher agreeableness and feeling or thinking personality type
 - teacher agreeableness and sensitivity to reward and punishment
- 4) to examine the relationship between
 - teacher agreeableness and self-esteem
 - teacher agreeableness and anxiety
- 5) to outline sustainability of 'safe/healthy agreeableness' in teaching

Hypothesis: There are distinct features in the personality structure of high and low agreeable teachers. In order to test the hypothesis, the following expectations have been developed:



- E1: More feeling individuals will be found among high agreeable teachers, while thinking type will dominate low agreeable teachers
- E2: The higher is agreeableness in teachers, the more they are responsive to punishment and sensitive to negative events.
- E3: Low agreeable teachers are expected to score higher in self-esteem than high agreeable teachers.
- E4: Highly agreeable teachers are expected to be more anxious than low agreeable teachers.

The benefits of the research present invaluable knowledge to both college administrators and instructors in order to foster effective teaching and learning. First of all, recognizing their degree of agreeableness, teachers can obtain meaningful message about their personal and professional motivation. Moreover, having deep insights into the strengths and weaknesses of agreeable teachers, they can start this long challenging way to balance strategies in teaching in order to meet not only students' needs but also their own. By this agreeable teachers may enhance their self-esteem and reduce anxiety and therefore contribute better to the educational process. Furthermore, the results of the present study can be implemented in both professional development courses and teacher training seminars. A major challenge for professional development is to assist teachers in developing personal and professional resources that enable them to function as highly accomplished teachers. Naturally, this is a slow process even though a teacher is aspired to teach in a particular manner, it takes some time to develop pedagogical content knowledge that support teaching in that way. Finally, the information gained from this study contributes to the research literature through expanding on the differences in the personality structure of teachers with high and low agreeableness.

Method

Data Collecting and Sampling

The initial study was carried out with 182 pre-service teachers of Two Foreign Languages Department, Education and Humanities Faculty, Suleyman Demirel University. The data were collected in three academic years 2016, 2017, 2018 with three different groups of students during the Self-knowledge course for future teachers. To begin with, the participants aged between 19 –21 were administered to complete Big Five-Factor Model Test measuring such dispositions as Extroversion, Neuroticism, Openness, Conscientiousness and Agreeableness. This psychological model has been applied in various cultures and proved its validity on an international level (Ong Choon Hee, 2014). One can score high in Openness, moderately high in Conscientiousness, moderate in Extraversion, moderately low in Neuroticism, and low in Agreeableness. Each individual has a dominant predisposition. Calculated scores are between zero and forty. For the research reliability we deliberately excluded the participants with high Neuroticism factor, which positively correlates with anxiety and BIS scale. As the result of the test completion and thorough calculation we obtained our final sample for further investigation. The two focus groups made up 48 high agreeable teachers with scores between 30 and 40 (75-100%); and 23 low agreeable teachers who scored only 0-10 (0-25%) on Agreeableness. Finally, these selected participants were checked for the results of Myers-Briggs Type Indicator (MBTI), The BIS /BAS scales by Carver C. and White T., Sorensen Self-esteem Inventory and Anxiety Questionnaire.

Measurement Instruments

The research instruments applied in the study present various measures of personality on the physiological, cognitive and affective levels and stand out as reliable for the research. Once the sampling had been finalized the next stage of the research was to confirm our expectation about the links between feeling and thinking personality type and high and low agreeableness. High and low agreeable teachers from our sample were offered to do Myers-Briggs Type Indicator Test which measures psychological preferences in the way we perceive the world, construe experiences and make decisions. MBTI scales propose four personality preferences: Extrovert/Introvert (E-I), Sensing/Intuitive(S-N), Thinking/Feeling (T-F) and Judging/Perceiving (J-P). The test is based on C. Jung's theory who had proposed two differing attitudes – extravert and introvert and four



principal functions such as intuition and sensation, thinking and feeling influencing our world perception and interaction. Our research interest was drawn to the thinking –feeling function which would explain the way high and low agreeable teachers prefer making decisions, their motives and values and expected results. Thus, we used only the T-F index scores according to the research design.

After that the participants in two focus groups completed The BIS /BAS scales by Carver C. and White T. in order to investigate associations between teacher agreeableness and sensitivity to reward and punishment. The test is based on J. A. Gray's Reinforcement Sensitivity Theory and gives a neuropsychological explanation of personality. According to J. A. Gray we have two neural systems that control our behavior activity: Behavioral Approach System (BAS) and Behavioral Inhibition System (BIS). The former is sensitive to reward and non – punishment signals and measures impulsivity; while the latter is activated by punishment and non - reward signals and measures anxiety scale. Test questions have 24 items with 4 point scales (1 = very true for me to 4 =very false for me). The respondents receive total BAS score which is summarized from three BAS sub-scales (Drive, Fun Seeking and Reward Responsiveness) and BIS score related to anticipation of punishment and avoidance motivation.

To examine the relationship between teacher agreeableness and self-esteem the participants took the Sorensen Self-esteem Test. It is reported as a very comprehensive tool to measure your level of self-esteem. The test consists of 50 statements and you simply put a tick next to each one that you feel applies to you. The questions cover different aspects of your life from inherent traits and upbringing to social behavior and work-related issues. The results fall into categories between fairly good and severely low self-esteem.

Finally, high and low agreeable groups completed Anxiety Questionnaire which was specially selected and adapted for the needs of our study. The quiz consists of 20 questions with five different options of how you may truly feel. The task is to indicate how often you feel like that. The questions take into account various habits in your personal, social and work life where you can behave in apprehensive ways. It focuses on the behavioral patterns rather than testing biological problems with your brain. Anxiety test results range from low to high. Moderate anxiety level is between 41 and 60, which is considered above normal range.

Method analysis

Mathematical processing of data was carried out using the statistical package SPSS, version 21.0. This includes descriptive statistics, calculating mean and Pearson correlation coefficient which measures the linear covariance of the two variables. The correlation is positive (+1) if greater values of one variable is in line with greater values of the other. However, the correlation is negative (-1) if greater values correspond to lesser ones. There can be found no linear correlation (0). Our research task was to investigate the correlation between the following variables:

- Agreeableness and self-esteem;
- Agreeableness and anxiety;
- Agreeableness and BAS scale;
- Agreeableness and BIS scale.

The obtained data then were used for comparative analysis of two distinct groups of teacher candidates: high agreeable and low agreeable. The analysis included such factors as cognitive, affective, motivational and physiological strengths and weaknesses representing personality structure of the experimental groups. A general prediction of how these factors may impact teachers' personal and professional life were outlined in the discussion analysis.

Results and Findings



The results of sampling demonstrated the following findings:

Table 1. Participants' number and agreeableness mean of teacher candidates with high and low agreeableness

Agreeableness degree	N	Agreeableness MEAN %
HIGH (75-100%)	48	80
LOW (0-25%)	23	17

As can be observed in Table 1 the number of teacher candidates with high agreeableness is two times as big as those with low results. This means that being people-oriented profession teaching requires a good capacity of interpersonal intelligence and willingness to build healthy teacher-learner relationship. Such capacity is really well –developed by high agreeable teacher candidates with 80% on average. We can predict that the low agreeable candidates who scored only 17 % will find it hard to develop trust and display interpersonal empathy to their students. They may put a lot of weight on the content and task completion but grow unpopular with students.

Research task: to identify associations between teacher agreeableness and Feeling and Thinking personality type.

Table 2. Distribution of Feeling and Thinking preferences in teacher candidates with high and low agreeableness

Agreeableness degree	Feeling type (N %)	Thinking type (N %)
HIGH	85	15
LOW	39	61

According to the data in Table 2 Feeling type is found most popular among a great majority of high agreeable teachers (85%), while thinking type style is preferred by low agreeable teachers more (61%). The results are in line with findings by the authors of Big Five Test McCrae and Costa (1989). They concluded that only T-F preferences revealed positive correlation with Agreeableness (0.44). Our expectation was supported. The higher is feeling preference the more agreeable a teacher is; conversely, with the higher thinking preference a teacher becomes less agreeable. What exactly differentiates Feeling teacher from Thinking? Teachers have to make a lot of decisions. Feeling teachers look for what is important to students and express genuine concern for them. Their ideals and principles remain more important than professional success (Charles R. Martin, 1997). For Feelers harmony should be in everything: how to make the lesson interesting and how to assess tactfully. The research findings confirm that feeling teachers are more productive in teaching speaking a foreign language compared to Thinking teachers (A.Mohseni, 2013). Obviously, students love those who make them motivated and happy. However, feeling teachers have some weaknesses as well. They may find it difficult to punish students for not meeting the deadlines and can be too idealistic and subjective. On the contrary, thinking teachers look for logical solutions in any decision. They can be evaluated as too task-directed and indifferent. Among strengths of thinking teachers remain their ability to calculate ways to improve efficiency and to be fair.

Research task: to examine links between teacher agreeableness and sensitivity to reward (BAS) and punishment (BIS)

Table 3. Total BAS and BIS scores in teacher candidates with high and low agreeableness

Agreeableness degree	BAS (MEAN %)	BIS (MEAN %)
HIGH	81	75
LOW	76	59



Having received moderately high BAS rating both high (81%) and low (76 %) agreeable teacher candidates demonstrated similar approach to new rewards, readiness to take risk and persist in desired goals. It describes teachers as fun and novelty seekers with a focus on achievable goals. While BAS is our energizer or engine, BIS plays a braking system role. The results show that brakes are more intense among high agreeable teachers making them feel more concerned about possible negative events. Moderately high BIS (75%) in high agreeable teachers increases their anxiety and makes them fear punishment and more likely to avoid negative situations. Interestingly, BIS is not only responsible for negative emotions, but positive as well, for example, experiencing relief more intensely (Smits, D., Boeck, P.,2006). As for low agreeable teachers with quite moderate BIS scale (59%), they are more relaxed and can use impulsivity to overcome inhibition.

Table 4. Correlations between teacher agreeableness and BAS and BIS scales.

		Agreeableness	BAS	BIS
Agreeableness	Pearson Correlation	1	,133	,477**
	Sig. (2-tailed)		,269	,000
	N	71	71	71
Behavioral approach system	Pearson Correlation	,133	1	,258*
	Sig. (2-tailed)	,269		,030
	Total N (48+23)	71	71	71
Behavioral inhibition system	Pearson Correlation	,477**	,258*	1
	Sig. (2-tailed)	,000	,030	
	Total N (48+23)	71	71	71

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The Pearson correlation analysis in our study revealed significant covariance of two variables Agreeableness and BIS (0,477), which supports our expectation that the higher is agreeableness in teacher candidates, the more they are anxious and sensitive to punishment. The results also revealed small positive correlation between agreeableness and BAS scales (0,133). Another positive correlation discovered in our study was between BIS and BAS (0,258), which means the higher is BIS score, the higher becomes BAS scale.

Although quite a few studies examined the relationships between Agreeableness and BAS/BIS scales, the results in our research go along with these findings. One of them displayed positive correlation between Agreeableness and BIS scale, which predicts agreeable behavior when activation of BIS can prevent social punishment and introduce social reward (Smits and Boeck, 2006). The research by Keiser and Ross (2011) concluded that BIS-anxiety predicted such sub-traits as Compliance and Modesty, which might explain cooperative nature and other-focused attitude of highly agreeable individuals from physiological point of view. Furthermore, these authors discovered negative correlation between BAS drive and agreeableness. This implies that high agreeable people are not driven first to pursue their own goals but rather try to please others when BAS is activated.

Research task: to find out relationship between teacher agreeableness and self- esteem; teacher agreeableness and anxiety.

Table 5. Self-esteem and anxiety rates in teacher candidates with high and low agreeableness

Agreeableness degree	Self-esteem (MEAN %)	Anxiety (MEAN %)
HIGH	66	49
LOW	88	26



From the received data in Table 5 we can conclude that both high and low agreeable teachers deal well with self-esteem and anxiety. Low agreeable group received the best option – ‘fairly good self-esteem’ (88%), which is unusually high for this career and age category. We believe that it is low level of agreeableness and anxiety (very low-26%) facilitate the development of analytical, fearless, narcissistic, getting-what-they-want at all costs personality.

As regards high agreeable teachers their self-esteem and anxiety scores are balanced, both estimating moderate levels. This reminds us of high agreeable preference to harmony and moderation. They appear to be really happy to see their students motivated to learn, successful in studies and accepted by peers. Overall, they seem to balance cognitive, affective and social strategies for both learners and themselves. However, the anxiety level is already above normal (<40) revealing evident tendency of high agreeable teachers to worry and become stressful. This assumption is supported by high BIS level as well.

Table 6. Correlations between teacher agreeableness and self-esteem and anxiety rates

		Agreeableness	Anxiety	Self-esteem
Agreeableness	Pearson Correlation	1	,544**	-,634**
	Sig. (2-tailed)		,000	,000
	Total N (48+23)	71	71	71
Anxiety	Pearson Correlation	,544**	1	-,646**
	Sig. (2-tailed)	,000		,000
	N	71	71	71
Self-esteem	Pearson Correlation	-,634**	-,646**	1
	Sig. (2-tailed)	,000	,000	
	Total N (48+23)	71	71	71

** . Correlation is significant at the 0.01 level (2-tailed).

Two significant correlations are revealed by the data in Table 6. One is very high positive correlation between Agreeableness and Anxiety (0.544). The higher is Agreeableness, the more anxious teachers feel. Our expectation was confirmed. The second finding is strong negative correlation between Agreeableness and Self-esteem (-0.634) supporting our expectation: the lower is Agreeableness, the higher is Self-esteem. Additional correlation can be drawn from the ratings: significantly negative correlation between Self-esteem and Anxiety (-0.646). This explains why teachers with high self-esteem have lower anxiety.

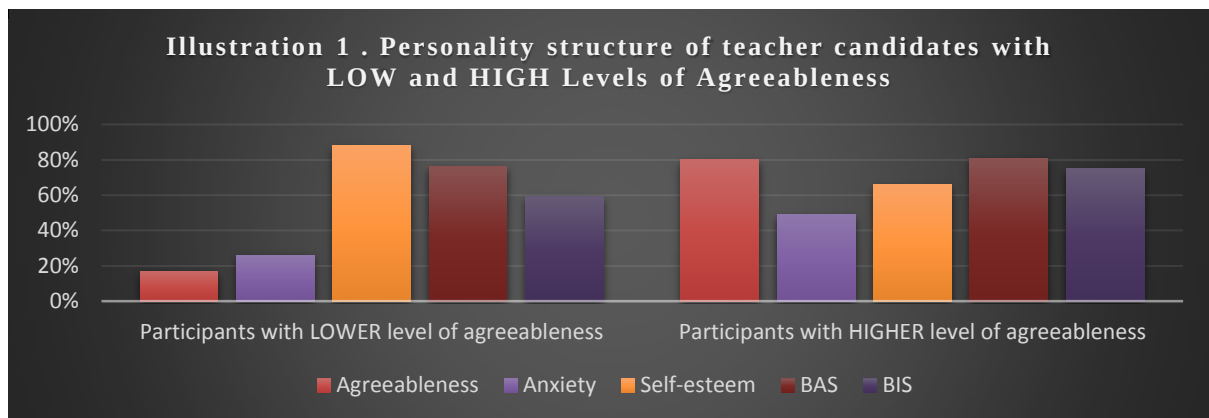
A few researchers have addressed the problem of agreeableness and self-esteem. Still, there is scarce and ambiguous information about their relationship. Some studies argue that highly agreeable people tend to score higher on self-esteem than low agreeable. Others state that self-esteem of agreeable individuals can suffer due to their need to please the environment and sacrifice their true emotions and desires, which will consequently lead to health problems such as stress, depression and resentment. Also, high agreeableness can be heightened if that individual has a low self-esteem, especially when excessive feelings of guilt increase the need to please people. Linden Timoney study (2015) revealed that self-esteem and agreeableness are not significantly linked. Low self-esteemers and people lower in agreeableness reported greater typical negative affect than low self-esteemers with high agreeableness. Therefore, agreeableness can moderate the effects of self-esteem (Forest & Wood, 2012).

There is no agreement in articles about correlations with anxiety either. Some descriptions predict tendency to worry and anxiety about not being liked in highly agreeable individuals. Sarah L. Thomas (2012) hypothesized



that anxiety about social conflict with family members would be positively related to agreeableness. Moreover, agreeable individuals may be more anxious than other individuals in potentially embarrassing situations or in situations in which they could potentially be rejected. She discovered a positive and significant relationship between agreeableness and anxiety about social conflict with friends, indicating that the more agreeable an individual is, the more anxious they are about social conflict with their friends. Others claim that agreeableness was largely unrelated to anxiety, depression, and substance use disorders (Kotov R. et al, 2010). Another research supports this finding by stating that there was no correlation with agreeableness and performance anxiety level (Gökhan Özdemir, Esra Dalkıran, 2017).

To sum up, our hypothesis was proved. There are distinct features in the personality structure of high and low agreeable teachers. To make a graph illustration of these features we combined the results of four tests:



The biggest difference is illustrated in the affective factor by Anxiety rates (almost 90%), followed by cognitive factor of Self-esteem with 33% difference , next goes physiological factor enabling anxiety arousal BIS scale with 27 % difference. The motivational factor BAS with drive, reward responsiveness and novelty seeking revealed insignificant difference, though both focus groups participants scored high enough at around 80% on this factor. The most astonishing finding was a huge gap between self-esteem rate (very high) and anxiety level (very low) within one experimental group of low agreeable teachers, which outlined a very peculiar indicator of this group type. The most attractive finding within high agreeable experimental group was their balanced and moderated rates between 66% and 81% in three factors in a row; namely, cognitive, motivational and physiological. We can predict a healthy adaptation and stability on the condition if anxiety rate remains unchanged or reduced. In this case as the literature review mentioned high agreeable teachers may enjoy longevity and share their positive emotions attitude with their students and colleagues.

Conclusions and Recommendations

The research highlights the lifelong learning opportunities: it is worthwhile for teachers to recognize their agreeableness level; then to understand which positive and negative influence it can produce on professional and personality beliefs of the teacher. Both high and low agreeable teachers possess strengths and weaknesses which we recommend to identify and successfully exploit for the benefit of students as well as teachers and overall educational process.

1. Based on the summary of the findings, the working hypothesis about statistical differences in the personality structure of teachers with High Agreeableness and Low Agreeableness was confirmed.
2. There are differences between High Agreeable and Low Agreeable teachers' self-esteem and anxiety. More agreeable teachers tend to be more anxious and rate lower on self-esteem than non-agreeable teachers.



3. Close bonds are observed between high agreeableness and more feeling type – warm and kind; low agreeableness and more thinking type - cold-minded and fair.
4. Low agreeable teachers tend to be more impulsive and compete more in conflict resolution, whereas high agreeable teachers avoid confrontation and conform more in order to maintain good relationship.
5. There is no ideal level of agreeableness. The trick is to know your agreeableness and work with it. To make things work better a disagreeable person can become agreeable more easily. However, it is a real pain for a high agreeable person to become disagreeable.

Sustainability of ‘safe/healthy agreeableness’ in teaching:

The strengths which high and low agreeable teachers can widely implement in the classroom to make learning enjoyable and effective:

High agreeable teachers’ gains in teaching practice	Low agreeable teachers’ gains in teaching practice
1.use unconditional positive regard	1. confront lower students’ performance
2.make effective cooperative learning	2. demand improvement and correction
3.behave as a friendly helper in conflict resolution	3. play the role of a model, informant and monitor
4.use a democratic leadership style	4. use an autocratic leadership style
5. make a good inclusive and popular teacher	5. remain confident if students reject them
6. bring intrinsic motivation, meaning and safety	6. bring innovation and demand diversity

The weaknesses which high and low agreeable teachers should identify and minimize to improve teaching skills:

High agreeable teachers’ pains in teaching practice	Low agreeable teachers’ pains in teaching practice
1.become anxious in the face of uncertainty	1.use conditional positive regard: strong or weak
2.experience a need to please students and feelings of guilt if fail to do this	2. use of intimidation and manipulation to raise learning efficiency
3.avoid confrontation with those who miss classes /cheat/manipulate	3. lack trust and often suspect students in cheating or dishonesty
4. experience stress giving extra help to students	4. show intolerance of students’ questions and insensitive to their time limits

To sum up, high and low agreeable teachers think differently, feel differently, and act differently. These differences are developed as the result of various conditions which influenced the development of agreeableness and led to different rates of anxiety and self-esteem. Therefore, the further research can be devoted to the investigation of such conditions which can illustrate the stimulation of the right balance development as early as possible and provide parents and educators with helpful tips. Moreover, to test the validity of the received results the study should be replicated with a larger sample from experienced teachers. Finally, the research design can be modified by using different research tools to measure anxiety and self-esteem.

References

- Agamani M., Birbal S., (2017). Job satisfaction of secondary school teachers in relation to personality and emotional intelligence. *American Journal of Educational research* 5(10), 1097-1101. DOI: 10.12691/education-5-10-11
- Agyemang , F., Dzandu M.,Boateng H., (2016). Knowledge sharing among teachers: the role of the Big Five Personality traits. *VINE Journal of Information and Knowledge Management Systems*. ISSN:2059-5891
- Damar Singh, S. (2017). College teachers. Presentation. Available at [https://www.google.kz/search?q=Damar+Singh+Saud+\(2017\)](https://www.google.kz/search?q=Damar+Singh+Saud+(2017))
- Donnellan, M., Lucas, R., (2008). Age Differences in the Big Five Across the Life Span: Evidence from Two National Samples. *Psychology and Aging*, 23(3). 558-566.
- Duckworth A., Weir D., Tsukayama E., Kwok D., (2012). Who does well in life? Conscientious adults excel in both objective and subjective success. *Frontiers in Psychology*, 3.



- Forest, A. & Wood, J. V., (2012). When social networking is not working: individuals with low self-esteem recognize but do not reap the benefits of self-disclosure on facebook. *Association for Psychological science*. <https://doi.org/10.1177/0956797611429709>
- Goencs,A., Pekic,J., Goencs,L., (2014) . The influence of students' personality traits on their perception of a good teacher within the Five-Factor Model of personality. *Acta Polytechnica Hungarica* 11(3) :65-86.
- Gökhan Özdemir, Esra Dalkıran (2017). Identification of the Predictive Power of Five Factor Personality Traits for Individual Instrument Performance Anxiety. *Journal of Education and Training Studies* Vol. 5, No. 9; ISSN 2324-805X E-ISSN 2324-8068
- Hamilton, A.R., (2010). Exploring the relationship between teacher personality traits and teachers' attitudes and practices towards family-school partnerships. Dissertation. Loyola University Chicago. Available at https://ecommons.luc.edu/luc_diss/134/
- Jensen-Campbell L. A.; Graziano W. G., (2001). Agreeableness as a moderator of interpersonal conflict. *Journal of Personality*. 69: 323–361. doi:10.1111/1467-6494.00148
- Judge T.A., Livingston B.A., Hurst C., (2012). Do nice guys – and gals – really finish last? The joint effects of sex and agreeableness on income. *Journal of Personality and Social Psychology*. 102:390–407.
- Keiser, H.N. & Ross, S. R., (2011). Carver and Whites' BIS/FFS/BAS scales and domains and facets of the Five Factor Model of personality. *Personality and Individual differences*, 51, 39-44.
- Kotov, R., Gamez,W., Schmidt,F.,(2010). Linking "Big" Personality Traits to Anxiety, Depressive, and Substance Use Disorders: A Meta-Analysis. *Psychological bulletin* 36(5):768-821
- Laursen B.; Pulkkinen L.; Adams R. (2002). The antecedents and correlates of agreeableness in adulthood. *Journal of Developmental Psychology*. 38 (4): 591–603. doi:10.1037/0012-1649.38.4.591. PMC 2730208
- Linden Timoney (2015). The role of self-esteem and agreeableness in self-reported capitalization outcomes. Thesis. Waterloo, Ontario, Canada. Available at <https://core.ac.uk/download/pdf/144148536.pdf>
- Martin C.R., (1997). Looking at Type: The Fundamentals. Available at <https://www.16personalities.com/articles/nature-thinking-vs-feeling>
- McCrae, Robert R; Costa, Paul T (1989). Reinterpreting the Myers-Briggs Type Indicator from the Perspective of the Five-Factor Model of Personality. *Journal of Personality*. 57 (1): 17–40. doi:10.1111/j.1467-6494.1989.tb00759.x. PMID 2709300.
- Mike Lehr, 2017. Agreeableness personality trait aligned and affirmed. Available at <http://omegazadvisors.com/2017/05/01/agreeableness-personality-trait/>
- Mohseni A., (2013). Investigating the relationship between teacher's Thinking vs. Feeling personality type and Iranian pre-intermediate EFL learners' speaking skill. *Iranian Journal of Applied Language Studies*, Vol 5, No2. 123-136. Available at http://ijals.usb.ac.ir/article_1880.html
- Owens, M., Truity, M.A. (2015). Personality type and career achievement. Does your type predict how far you'll climb? A survey of career outcomes among Briggs Myers' 16 personality types. Psychometrics LLC San Francisco, CA
- Pacale Benoliel and Anit Somech (2010). Who benefits from participative management? *Journal of Educational Administration* 48(3) DOI: 10.1108/09578231011041026
- Pei-Lee Teh, Chin Wei Chong, ChenChen Yong, Siew Yong Yew (2011). Do the Big Five Personality Factors affect knowledge sharing behavior? A study of Malaysian universities. *Malaysian Journal of Library and information Science* 16(1) Available at <https://www.researchgate.net/publication/266072066>
- Perlman, B., & McCann, L. I. (1998). Students' pet peeves about teaching. *Teaching of Psychology*, 25, 201-203
- Renee A.Scheepers , Kiki J., Lombarts, H., et al., (2014) Personality traits affect teaching performance of attending physicians: results of a multi-center observational study. *PLoS One* 9(5): e98107 doi: 10.1371/journal.pone.0098107
- Sarah L. Thomas (2012). Situational Contingences of Anxiety: What anxieties are associated with each of the Big Five? A Thesis Submitted to the Graduate Faculty of Wake Forest University Graduate School of Arts and Sciences, Psychology Winston-Salem, North Carolina
- Smits, D.J.M. and Boeck, P.D. (2006). From BIS/BAS to the big five. *European Journal of Personality*, 20, 255-270
- Specht, J., Egloff, B., & Schmukle, S. C. (2011). Stability and change of personality across the life course: the impact of age and major life events on mean-level and rank-order stability of the Big Five. *J Pers.Soc Psychol*, 101(4), 862-882. doi:2011-18537-001 [pii];10.1037/ a0024950 [doi]. Retrieved from PM:21859226

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Computational Thinking and Teachers: What is the Real Level of Experience in Teaching Algorithms and Programming for IT Teachers?

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Abstract

The presented paper deals with the frequently discussed issues of the development of pupils' computational thinking. The ability to think as an IT engineer is one of the important competences that enable pupils to develop and apply themselves not only in the informatics fields, but also in everyday life. The need for this development is becoming increasingly acute and follows the already established concept of information literacy development, which is still important but has already been overcome in certain areas. The development and promotion of the concept of computational thinking is based on several fundamental pillars, one of the most important being algorithmization and programming. However, the question arises as to whether IT subjects who were more focused on developing digital literacy with respect to valid curricula are ready to implement this systemic change. We were looking for an answer to this question within the framework of our research.

Keywords: Computational thinking, Algorithmization and programming, Teachers of IT subjects

Introduction

Computational thinking and the possibilities for its development among pupils and students of primary and secondary schools is currently a frequently discussed phenomenon (Korkmaz, Çakir, & Özden, 2017; Román-González, Pérez-González, & Jiménez-Fernández, 2017; Curzon, 2019; Lesner, 2014 etc.). Thinking as an IT engineer can be beneficial in many ways. For example, to be able to create your own algorithm for solving any problem (we take into account also everyday problems) can make your life easier. We must also not forget the creativity of pupils, which is sometimes blocked by the school education of Computer science, which is mostly focused only on the use of software instead of creating own programs and developing algorithms. All these efforts and discussions imply a clear need for systemic change, which would result in a fundamental innovation of the educational content of IT subjects at Czech schools and thus be closer to the concept of “Computational thinking” (Wing, 2006; Google, 2016). It is difficult to define unambiguously what is meant by the term “computational thinking”, since it depends on the point of view. Each author or institution approaches its definition in a different way. However, some definitions overlap and agree in certain points (Dragon, 2018).

Computational thinking and teachers

The implementation phase of the planned reform is also linked to the need to create a system of financial incentives and expert methodological support for teachers and school leadership, as they are the factual implementers of the reform, and it is therefore necessary to ensure their high competence in the given field (Janík et al., 2011, p. 406). A research conducted under the leadership of V. Rambousek (Rambousek et al., 2013) points to the risk that in the case of introducing Algorithmization and Programming into the compulsory curriculum of IT subjects at Czech schools, a large number of IT teachers would be forced to supplement their



knowledge in the field and identify themselves internally with the changes. Currently, the majority of teachers do not consider Algorithmization and Programming to be crucial, they do not teach this thematic unit, and it can thus be assumed that their competences in this regard will not be too high. A weak point in the education of the Information and Communication Technologies is the fact that it is often taught by unqualified teachers (Stuchliková et al., 2015). In the survey carried out by the Czech Science Foundation in 2013 among 1178 respondents—teachers of IT courses representing individual primary schools—it was found that only 18% of respondents from ICT teachers of upper primary schools are certified to teach IT or a similar field of study (Rambousek et al., 2013). The ICT competencies of most teachers are at the level of knowledgeable ICT users. Unqualified teachers very often focus on topics they manage perfectly, which is often the handling of basic text and web browsing applications. The fact that Czech ICT teachers teach what they can do themselves was confirmed by researches conducted by the Czech Science Foundation in 2006 (Rambousek et al., 2007) and repeatedly in 2013 (Rambousek et al., 2013). It was found out that at primary schools the teaching focuses mainly on the knowledge of the user menu, routine handling of common user programs of Office type or specialized SW applications, as well as on common ways of searching on the Internet. Among the topics that ICT teachers at Czech primary schools do not like are databases and programming. A comparison of the results of the researches conducted in 2006 and 2013 showed that primary school teachers teaching ICT subjects are satisfied with the state of teaching of these subjects and do not think that there should be any fundamental change in this respect. It is difficult to imagine that such teachers are professionally prepared to teach the foundations of ICT, which should in the new conception include also the concept of Computational thinking (Stuchliková et al., 2015).

So, what is the situation in the area of acceptance of the upcoming change in the curriculum for the Information and Communication Technologies educational area from the perspective of IT teachers of upper primary and grammar schools? What is the real knowledge and experience of IT teachers with Algorithmization and Programming issues, which is one of the important components of promoting the Computational Thinking concept? These are some of the questions to which we have been looking an answer based on the research survey described below.

The focus and objectives of the research survey conducted

In the previous text, some of the trends related to the development of content and forms of teaching IT subjects within the education system of the Czech Republic have been described. We have also tried to outline some of the pitfalls or challenges that determine this development. It is not possible to determine to what extent these trends, pitfalls or challenges are significant without further exploring this issue by means of educational research methods. This research aimed at finding out the current level of experience of IT teachers in the field of Algorithmization and Programming teaching, as one of the key elements for promoting the Computational Thinking concept, was conducted among IT teachers at 35 primary and grammar schools.

Therefore, the research presented below was primarily focused on determining the current level of knowledge and experience of teachers with the teaching of Algorithmization and Programming, including the mapping of the knowledge of specific tools for implementing such oriented teaching. The aim was to find out in what spectrum and level it is possible to determine the existing awareness and knowledge of the issues of Algorithmization and Programming teaching in IT teachers at upper primary and grammar schools, as one of the main elements of Computational thinking development.

Method

The methodology of the research survey conducted

A questionnaire was used as the basic means of obtaining the data needed to conduct a research survey. In the classification structure of research methods, the questionnaire is an indirect – investigative method.



The questionnaire can be characterized as “a specific means by which people's opinion on individual phenomena is examined” (Chráška & Kočvarová, 2015). From the point of view of an individual (respondent), the examined phenomena can relate either to external phenomena or to internal processes. For the purposes of the research, a structured questionnaire was created to help determine the opinions of IT teachers at upper primary and grammar schools about the phenomena under investigation. The questionnaire contained both closed questions with the answer offered, semi-closed questions with a range of answers (using the four-step scale), but also open questions, in which the respondents could record the varied status of the observed phenomena. To ensure the clarity of the individual questions, the questionnaire was supplemented by an explanatory text defining the terms used.

The research questionnaire was distributed, in the period from January to February 2019, among the IT teachers of a total of 35 upper primary and grammar schools. Altogether, the questionnaire was filled in by 123 respondents—teachers of upper primary and grammar schools. A detailed description of the research sample is given in Table 1.

Table 1: The structure of the research sample

Characteristic	Group	Frequency	Frequency in %
Sex	Male	57	46.3
	Female	66	53.7
Length of professional experience	less than 10 years	21	17.1
	more than 20 years	102	82.9
Size of school	less than 500 pupils	84	68.3
	more than 500 pupils	39	31.7

For the determination of the power of the individual groups of respondents answering in the same way, basic descriptive statistics and their visualization with graphs were used. Furthermore, these results were subjected to an analysis, which monitored the importance of responses for individual groups of respondents broken down by significant features (gender). For this verification, we used the parametric Student's t-test for independent groups, which compares the averages of one variable in two groups (Chráška & Kočvarová, 2015). For all these calculations and visualizations, the Statistica software system was used.

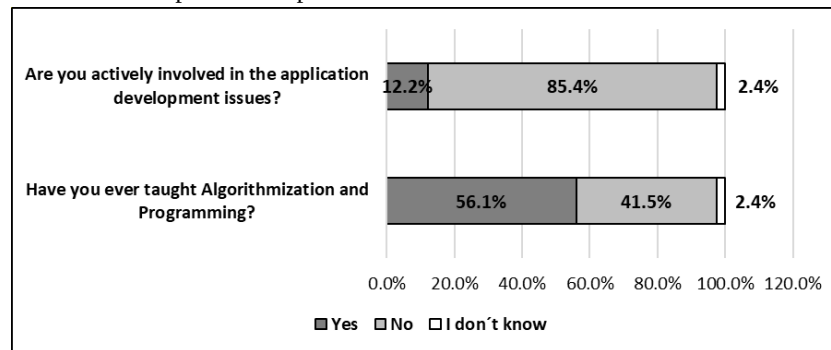
Findings

Real experience of IT teachers with the teaching of Algorithmization and Programming

To be able to analyse more closely the current level of IT teachers' experience with the teaching of this thematic unit, we used two questionnaire items: “*Have you ever taught Algorithmization and Programming?*” and “*Are you actively involved in the application development issues?*”. Thus, the set of these questionnaire items enabled us to find out not only the current level of experience with the teaching of this thematic unit, but also whether the teachers of IT courses deal with Algorithmization or Programming outside the classroom and thus have a real experience with application development. We assumed that the real experience of IT teachers with the teaching of Algorithmization and Programming issues would significantly contribute to the successful implementation of the curriculum innovation for the Information and Communication Technologies education area, as these issues would not be completely new for many teachers and so they could benefit from their past experience. However, we did not think that IT teachers were actively involved in the development of production applications, as their focus on teaching is probably somewhat different. Based on this consideration, the following research assumption was established: *IT teachers of upper primary and grammar schools have a real experience with the teaching of Algorithmization and Programming issues, although they are not actively involved in application development.*



A summary of the answers of IT teachers of upper primary and grammar schools is given in Graph 1, on the basis of which it was also possible to proceed with the verification of the established research assumption.



Graph 1: Declared level of teachers' experience in the area of Algorithmization and Programming

As can be seen from Graph 1 above, the vast majority of IT teachers of upper primary and grammar schools, namely 56.1%, declare that they have a real experience with teaching Algorithmization and Programming (answer: Yes). However, quite a large group of IT teachers, namely 43.9%, declares that they have no experience with the teaching of this issue (answers: No and I do not know - I do not follow it). This result is quite interesting as it points to the high degree of differentiation of educational content at individual schools, when at some of them this issue has been or is being taught, while at others it is not being developed at all. It has been suggested that involving the thematic unit of Algorithmization and Programming in teaching may depend primarily on the significant features of the individual groups of respondents where there was a realistic assumption of gender dependence.

For the above reason, they were subjected to further analyses, focusing on whether they are dependent on individual significant characteristics of respondent groups (gender, school type and school size). Based on the gender independence of the respondents, the following research hypothesis was established: IT teachers of upper primary and grammar schools—men declare a higher level of real experience with the teaching of Algorithmization and Programming than IT teachers of upper primary and grammar schools—women. The established hypothesis was verified on a sample of 123 respondents, IT teachers of upper primary and grammar schools, using the Student's t-test for independent groups, with the grouping variable being the gender of the respondents, as shown in Table 2.

Table 2: Declared degree of experience in teaching Algorithmization and Programming versus gender

Statement	Student's t-test; grouped by gender, number of respondents: 123				
	Declared degree of experience in teaching Algorithmization and Programming				
	Group 1 (men)	Group 2 (women)	p	Valid responses of Group 1	Valid responses of Group 2
Have you ever taught Algorithmization and Programming?	1,789474	1,509091	0,092811	57	66
Are you actively involved in the application development issues?	1,157895	1,090909	0,261233	57	66

Since $p > 0.05$ has been achieved for both of the claims under consideration, which is a higher value than the determined level of significance; we cannot reject the null hypothesis and can accept it. Therefore, it is possible to state with a relatively high probability that *there are no differences between the degree of declared real experience with the teaching of Algorithmization and Programming in IT teachers of upper primary and grammar schools—women and men.*

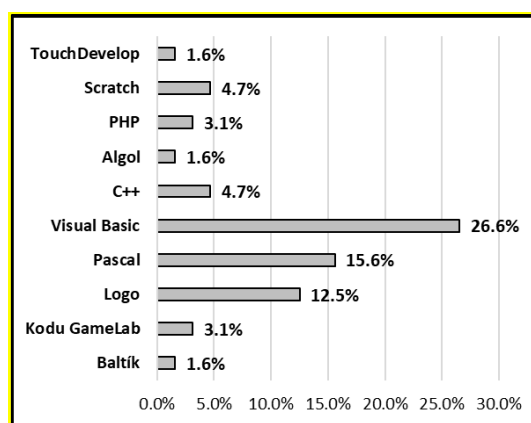


This result is quite interesting, as it breaks down the “classic” myth of general non-popularity of Algorithmization and Programming in women. Therefore, it is clear that the duality of teachers' view of the teaching of Algorithmization and Programming issues must be sought somewhere else.

IT teachers' knowledge of a specific programming language or development environment

The fact that a relatively high percentage of IT teachers of upper primary and grammar schools declared a real experience with the teaching of Algorithmization and Programming issues led us to find out which specific programming languages or development environments they know and use. Thus, if the teaching of Algorithmization and Programming is already being implemented by teachers, the view of it often moves between two poles. The first pole is the use of learning programming languages and development environments, such as Python and Kodu Game Lab. The second pole is then formed by “real” programming or scripting languages, such as Visual Basic and Java, that allow the creation of production applications. For a number of years, the professional public has been leading a debate, when the first-pole advocates argue for the need for a didactic approach to the teaching of Programming in the form of a gamey, while the second-pole advocates argue for the necessity of teaching “real” programming languages, whose foundations are then used by pupils in practical life or further education (e.g. Pitner, 2000; Klement & Kubrický, 2009 etc.) The view of the IT teachers themselves and their acceptance of a possible change in the educational content towards a substantial expansion of the teaching of Algorithmization and Programming, as envisaged in the Digital Education Strategy up to 2020, have also partly disappeared from this professional discussion. While, of course, it is not solely up to the IT teachers to determine the content and focus of the teaching, their views and preferences at the time of designing the conception and content of thus conceived teaching are one of the indispensable factors that may affect later results and benefits.

Based on the above-mentioned facts and our personal experience, we have established the following research assumption: *IT teachers of upper primary and grammar schools used a production programming language to teach Algorithmization and Programming.* A summary of the answers of IT teachers at upper primary and grammar schools is given in Graph 2.



Graph 2: IT teachers' knowledge of a specific programming language or development environment

Again, we can conclude that the result shown in Graph 2 confirms the previously identified facts. A total of 75.1% (the cumulative sum of the percentage of each programming language or environment in the graph) of IT teachers reported that they have a knowledge of or previous experience with a particular programming language or development environment. The most widely used tool is the Visual Basic full-featured programming language, mentioned by 26.6% of IT teachers. It is an event-driven object-oriented programming language that



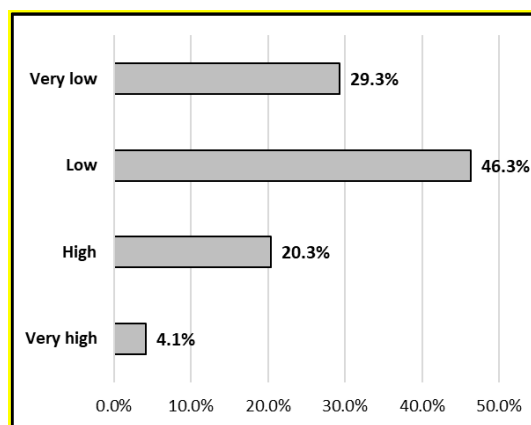
integrates a development environment (IDE) and is manufactured by Microsoft. The second most widely used tool is the Pascal programming language, which was mentioned by a total of 15.6% of teachers. The programming language was originally intended primarily for the teaching of programming, but its various variants and derivatives are also used to program real applications (e.g. Turbo Pascal, Object Pascal, Delphi, etc.). The last frequently used programming language is LOGO, which was chosen by 12.5% of IT teachers. It is a simple, functional programming language that was designed by BBN (Cambridge, Massachusetts) in 1967 to teach thinking, but is primarily associated with teaching children how to program. Based on this result, we can confirm and clarify our research assumption in the following way: *IT teachers of upper primary and grammar schools used most often the Visual Basic production programming language to teach Algorithmization and Programming.*

As is evident, if the teaching of Algorithmization and Programming is already in place, more fully-fledged development platforms are preferred, as Visual Basic and Pascal are the most widely used and best-known tools among IT teachers, which primarily focus on developing real applications. Educational programming languages, allowing rather educational activities, are somewhat marginalized, which, however, does not have to be counterproductive. The teaching of Algorithmization and Programming is certainly one of the more difficult thematic units, and so it is certainly appropriate to motivate pupils by, for example, letting them develop computer games instead of complex real applications. The possibility of transferring and practical application of the knowledge gained by the teaching of Algorithmization and Programming is one of the important factors that can help stimulate pupils to study this issue.

The subjective level of knowledge and skills of IT teachers in the area of Algorithmization and Programming

However, the actual use of a particular programming language is not sufficient if we do not know the level of possibility of its usability for teaching. For we assumed that because it is one of the typically “non-traditional” IT topics that is not being developed more systematically within the ICT curriculum, teachers themselves would declare a lower level of knowledge and proficiency in using specific programming languages and environments.

Based on this consideration, the following research assumption was established: *IT teachers of upper primary and grammar schools declare a generally low level of knowledge and skills in the area of Algorithmization and Programming.* A summary of the answers of IT teachers at upper primary and grammar schools is given in Graph 3.



Graph 3: The overall level of IT teachers' knowledge and skills in the field of Algorithmization



As can be seen from Graph 3, the vast majority of IT teachers of upper primary and grammar schools, namely 75.6%, declare a low or zero knowledge in the area of Algorithmization and Programming (answers: Low and Very Low). Only a relatively small part of IT teachers, namely 24.4%, declare a high level of knowledge in this area (answers: Very High and High). Based on this result, we were able to confirm our research assumption: *IT teachers of upper primary and grammar schools declare a generally low level of knowledge and skills in the area of Algorithmization and Programming.*

Therefore, it is clear that the teaching of Algorithmization and Programming is not a thematic unit that would get deeper into the teaching of IT subjects at primary schools, which is probably due to the real absence of this topic in the ICT curriculum. So, if it is introduced within the upcoming implementation of the Digital Education Strategy up to 2020, it will be necessary to increase the level of knowledge and skills in this area not only of the pupils themselves but also of their teachers. For the sake of completeness, the results were again subjected to further analyses, focusing on whether they are independent of individual significant features of the individual groups of respondents (gender, type of school and size of school). Based on the found independence on the respondents' gender, the following research hypothesis was established: *IT teachers of upper primary and grammar schools—women declare a higher level of knowledge and skills in the area of Algorithmization and Programming than IT teachers of upper primary and grammar schools—men.* To find independence from the type of school, the following hypothesis was used: *IT teachers of upper primary and grammar schools with acquired professional experience longer than 10 years declare a higher level of knowledge and skills in the area of Algorithmization and Programming than IT teachers of upper primary and grammar schools with acquired professional experience of up to 10 years,* and to find independence from the location of the school, the following hypothesis was established: *IT teachers of upper primary and grammar schools with more than 500 pupils declare a higher level of knowledge and skills in the area of Algorithmization and Programming than IT teachers of upper primary and grammar schools with fewer than 500 pupils.*

The established hypotheses have been verified on a sample of 123 respondents, IT teachers of upper primary and grammar schools, using the Student's t-test for independent groups, with the grouping variable being the gender of the respondents, their acquired professional experience and the size of the school at which they teach, as shown in Table 3.

Table 3: Declared level of knowledge and skills in the area of Algorithmization and Programming versus gender, acquired professional experience and school size

Statement	Student's t-test; grouped by gender, by length of professional experience and by size of school; number of respondents: 123 Declared level of knowledge and skills in the area of Algorithmization and Programming.				
	Group 1	Group 2	p	Valid responses of Group 1	Valid responses of Group 2
Sex					
Group 1 = men	2,263158	1,681818	0,000006	57	66
Group 2 = women					
Length of professional experience					
Group 1 = less than 10 years	1,941176	2,000000	0,739509	102	21
Group 2 = more than 10 years					
Size of school					
Group 1 = less than 500 pupils	2,071429	1,692308	0,007155	84	39
Group 2 = more than 500 pupils					

When performing an analysis by the gender of the respondents, the calculated value $p = 0,000006$, which



is a lower value than the determined level of significance; we can reject the null hypothesis and accept the alternative hypothesis. It can be stated that *IT teachers of upper primary and grammar schools—men declare a higher level of knowledge and skills in the area of Algorithmization and Programming than IT teachers of upper primary and grammar schools—women.*

When determining the dependence on their acquired professional experience, $p = 0.739509$, which is a higher value than the determined level of significance; we cannot reject the null hypothesis and can accept it. Therefore, it is possible to state that *there are no differences between the declared level of knowledge and skills in the area of Algorithmization and Programming in IT teachers of upper primary and grammar schools, with regard to their acquired professional experience.*

When performing an analysis by the school size, the calculated value $p = 0.007155$, which is a lower value than the determined level of significance; we can reject the null hypothesis and accept the alternative hypothesis. It can be stated that *IT teachers of upper primary and grammar schools with fewer than 500 pupils declare a higher level of knowledge and skills in the area of Algorithmization and Programming than IT teachers of upper primary and grammar schools with more than 500 pupils.*

Results, Conclusions and Recommendations

Based on the performed analyses, it is possible to state that our established research assumptions have been verified and refined: *56.1% of IT teachers of upper primary and grammar schools have a real experience with the teaching of Algorithmization and Programming issues, although they are not actively involved in application development.* Furthermore, it can be stated that the above-mentioned *result does not depend on the gender of the respondents.*

Even in the case of a part of the research focused on the use of a specific programming language or development environment, the research assumption was confirmed and refined: *IT teachers of upper primary and grammar schools used most often the Visual Basic production programming language to teach Algorithmization and Programming.* However, when examining the level of knowledge and skills in using a particular programming language or development environment, we conclude that *IT teachers of upper primary and grammar schools declare a generally low level of knowledge and skills in the area of Algorithmization and Programming.* Moreover, this result can be considered strongly dependent on individual groups of respondents broken down by significant features.

Based on these results, it is clear that the overall level of teachers' preparedness for the implementation of the Digital Education Strategy up to 2020, where Algorithmization and Programming is one of the main elements of the innovative content, is not too high. As is evident, if the teaching of Algorithmization and Programming is already in place, more fully-fledged development platforms are preferred, as Visual Basic and Pascal are the most widely used and best-known tools among IT teachers, which primarily focus on developing real applications. Educational programming languages, allowing rather educational activities, are somewhat marginalized, which, however, does not have to be counterproductive. The teaching of Algorithmization and Programming is certainly one of the more difficult thematic units, and so it is certainly appropriate to motivate pupils by, for example, letting them develop computer games instead of complex real applications. The possibility of transferring and practical application of the knowledge gained by the teaching of Algorithmization and Programming is one of the important factors that can help stimulate pupils to study this issue.



References

- Chráska, M., & Kočvarová, I. (2015). *Kvantitativní metody sběru dat v pedagogických výzkumech*. Zlín: Univerzita Tomáše Bati ve Zlíně, Fakulta humanitních studií. 132 s.
- Curzon, P. (2014). *Computational thinking: Searching to Speak*. Retrieved from: <https://teachinglondoncomputing.files.wordpress.com/2014/01/computationalthinkingsearchingtospeak.pdf>
- Dragon, T. (2018). Using Educational Videos on the Internet as a Form of e-Learning to Support the Development of Computational Thinking. In *2nd International Conference on Education and E-Learning* (pp. 22-25). New York: ACM.
- Google. (2016). *What is Computational Thinking?* Retrieved from <https://computationalthinkingcourse.withgoogle.com/unit>
- Janík, T., Knecht, P., Najvar, P., Pišová, M., & Slavík, J. (2011). Kurikulární reforma na gymnáziích: výzkumná zjištění a doporučení. *Pedagogická orientace*, 21(4), 375-415. Retrieved from: https://is.muni.cz/repo/965915/PedOr11_4_KurikularniReforma_JanikEtAl.pdf?lang=cs
- Korkmaz, Ö., Çakir, R., & Özden, M. Y. (2017). A validity and reliability study of the computational thinking scales (CTS). *Computers in Human Behavior*, 72(2017), 558-569. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0747563217300055>
- Kubrický, J., & Klement, M. (2009). Objektově orientované programování ve výuce. *Journal of Technology and Information Education*, 1(3), 136-138.
- Lessner, D. (2014). Analysis of the term meaning “computational thinking”. *Journal of Technology and Information Education*, 6(1), 71-88. Retrieved from <https://www.jtie.upol.cz/pdfs/jti/2014/01/06.pdf>
- MŠMT. (2014). *Strategie digitálního vzdělávání do roku 2020*. Retrieved from <http://www.msmt.cz/uploads/DigiStrategie.pdf>
- Neumajer, O. (2014). Strategie digitálního vzdělávání do roku 2020. *Moderní vyučování: časopis na podporu rozvoje škol*, 20(9-10), 4-6.
- Pitner, T. (2000). *Výuka programování na základní a střední škole*. Retrieved from http://www.fi.muni.cz/~tomp/semuc/text_pitner.html
- Rambousek, V. et al. (2007). *Výzkum informační výchovy na základních školách*. Plzeň: Koniáš.
- Rambousek, V. et al. (2013). *Rozvoj informačně technologických kompetencí na základních školách*. Praha: České vysoké učení technické.
- Rambousek, V., Štípek, J., & Wildová, R. (2015). ICT competencies and their development in primary and lower secondary schools in the Czech Republic. In *Procedia-Social and Behavioral Sciences: 5th ICEEPSY International Conference on Education & Educational Psychology* (pp. 535–542). Unknown: Future Academy.
- Román-González, M., Pérez-González, J.-C., & Jiménez-Fernández, C. (2017). Which cognitive abilities underlie computational thinking? Criterion validity of the Computational Thinking Test. *Computers in Human Behavior*, 72(2017), 678-691. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0747563216306185#>
- Stuchlíková, Iva et al. (2015). *Oborové didaktiky: vývoj, stav, perspektivy*. Brno: Masarykova univerzita.
- Wing, J. M. (2006). Computational Thinking. *Communications of the ACM*, 49(3), 33-35. Retrieved from <https://www.cs.cmu.edu/~15110-s13/Wing06-ct.pdf>
- Zuppo, C. M. (2012). Defining ICT in a Boundaryless World: The Development of a Working Hierarchy. *International Journal of Managing Information Technology (IJMIT)*, 4(3), 13-22. Retrieved from <http://www.airccse.org/journal/ijmit/papers/4312ijmit02.pdf>



Assessment of CES Function Parameters in Oil-rich CIS Countries

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Abstract

The article conducts thorough analysis by using CES production function to measure the impact of capital (fixed assets) and labor (employed population) on the production volume (on GDP) in the CIS countries rich in hydrocarbon resources - Azerbaijan, Kazakhstan and Russia. The Study summarizes the current problem as an imbalance between the capital (fixed assets created using modern technology) and the labor market (labor to leverage key assets using potential opportunities). The subject of the research has enhancing relevance due to the lack of extensive research of the problem posed in the oil and gas-rich countries of the CIS. One of the methodological bases for the following study is the calculation of the elasticity of capital and labor substitution by defining the parameters of the generalized form of production function. According to the results obtained from the CES production function, the substitute elasticity coefficient in oil-rich countries of the CIS is less than one.

Based on the analysis, the results obtained from modeling is formulated and scientifically grounded recommendations have been provided for the improvement of education and its quality in these three countries, especially in Russia and Azerbaijan.

Keywords: Constant Elasticity of Substitution, production function, capital, specialized labor force

Introduction

There is a historical experience of the existence of certain problems in the field of sustainable development (Holland syndrome, resource curse) mainly in countries with rich hydrocarbon resources. Numerous studies carried out in this direction, and certain results obtained.

In assessing economic growth, the evaluation of production functions is of particular importance. Production functions can be used for various purposes: system performance can be evaluated using production functions; the possibility of replacing one of the factors of production by another and the result of substitution; the impact of production scale on its efficiency; the impact of management and technical innovation on the production process. In this study, based on the relevant statistical data from three countries of the CIS (Commonwealth of Independent States) - Azerbaijan, Russia and Kazakhstan, the parameters of the production function of CES (Constant Elasticity Substitution) were determined in the Mathcad system by the nonlinear least squares method.



Analysis of the calculated parameters shows that the elasticity of substitution (σ) of labor and capital for Azerbaijan and Russia was less than one, and for Kazakhstan close to one. The main common feature of these three CIS countries is that they are rich in natural resources and that these countries have a high share of oil revenues in GDP. The expressions “Holland Syndrome” and “resource curse” are used to characterize the economies of such countries. The negative impact of natural resources on economic development, which is called the “resource curse” remains at the center of attention (Auty, 2001). In such countries, capital raised from natural resources is channeled into imports of difficult technological products. In other words, the import of capital is increasing. Obviously, the lack of adequate labor that could cause this capital has led to a decrease in elasticity of substitution of capital and labor. Revenues derived from the exploitation of natural resources can lead to the formation of a skilled workforce. Public spending on education indirectly affects economic growth (Cooray, 2010). The growth of a well-educated population has a positive effect on economic growth and, thus, is considered one of the key indicators of economic growth (Romer, 1990).

Although CES and Cobb-Douglas production functions are based on neoclassical theory, there are significant differences between the two functions. The elasticity of substitution is a measure of the fact that one factor can be replaced by another - the replacement of capital in a production function through labor or vice versa. The possibility of interchangeability of production factors under the condition of a constant production volume makes it possible to combine existing production factors in different ways. The elasticity of substitution in the Cobb-Douglas production function is assumed to be equal to one, while in the CES production function it is estimated arbitrarily. If the elasticity of capital and labor substitution in the object under consideration is not equal to one, the calculated parameter estimates will reflect the situation incorrectly. To eliminate this discrepancy, it is necessary to estimate the parameters of CES production function and calculate the corresponding coefficient of elasticity of substitution. If the coefficient of elasticity is close to one, then the parameters will coincide with the parameters of the Cobb-Douglas production function (Miller, 2008). Arrow (1961) and other economists who used CES for the first time, based on data from 1949-1955, estimated 19 industries in different countries using the least squares method. The results showed that the elasticity of substitution is not always equal to one, as indicated in the Cobb-Douglas production function. Since then, numerous studies have been conducted with the CES production function. Using the least squares method like Arrow (1961) Kurz and Manne (1963), Bell (1965), Ferguson (1965), Sato (1970), Zarembka (1970), Desai (1976) and Kemfert (1998), Matthieu et al (2009) evaluated CES function for different countries, different periods and different sectors. Among these studies, Kmenta (1967) studies play a special role. Thus, Kmenta (1967) argued that the assumption of constant profitability from the scale of Arrow and others (1961) should be changed and added a scale parameter to the production function. Based on the scale parameter, it can be determined that the production function is stable, increasing or decreasing. In addition, Kmenta stated that it would be advisable to use a nonlinear least squares method when evaluating the CES production function. Maddala and Kadane (1967) investigated the approval of the Kmenta by the Monte Carlo method. The results showed that the Kmenta procedure, in general, did not give reliable results in evaluating the elasticity of substitution, but the assessment of the scale of profitability was correct. Hasanli (1998), Imanov and Hasanli (2001), Hasanli and Hasanov (2002), Hasanli (2013) studied the parameters of the CES production function according to the statistical data of Azerbaijan and found that the elasticity of the substitution of capital and labor in the 90s was more than one, in the early 2000s it is very close to one, and after 2010 it is less than one. Different types and forms of production functions (Cobb-Douglas (CD), CES, VES, translog, etc.), their advantages and disadvantages, a comparative analysis of the results obtained by scientists (It began with the introduction of the Cobb-Douglas function in 1928 and covers the period up to 2017) in different periods was very extensively reviewed in the article Songur, M. & Sarac Diamond, F. (2017).



Method

It is known that production functions have several forms. Among these functions based on the neoclassical theory, the CES function (constant elasticity of substitution) has a more general character. CES production function firstly was introduced by Arrow, Chenery, Minhas and Solow in 1961 in the article "Capital-Labor Substitution and Economic Efficiency" (1961). The generalized form of this function is as follows:

$$Y = A_0 \cdot (\delta K^{-\rho} + (1 - \delta)L^{-\rho})^{-\frac{\nu}{\rho}}$$

where Y - Gross Domestic Product, K - capital, L is for labor (labor force). According to Hicks, taking into account technical progress, CES production function is written as follows:

$$Y = A_0 \cdot e^{\lambda t} (\delta K^{-\rho} + (1 - \delta)L^{-\rho})^{-\frac{\nu}{\rho}}$$

where e ($e \approx 2.72$) is the Euler number (irrational number); t is the time indicator.

It is necessary to calculate the following parameters to evaluate this function. A_0 – is a scale coefficient ($A_0 > 0$) which is estimated depending on the unit of measure of other indicators. For example, if the variables are given as percentages, then this indicator characterizes the intensity of production and fluctuates near to one. δ – is distribution coefficient, ν – is the degree of homogeneity ($\nu > 0$), λ – is the parameter characterizing the level of technical progress, ρ – is parameter ($\rho \geq -1$) to calculate the coefficient of substitution elasticity (σ).

$$\sigma = \frac{1}{1 + \rho}$$

As in the case of the Cobb-Douglas production function, also in the CES function, the rate of limit substitution of factors K and L is decreasing. Under the condition of a constant volume of production, the rate of substitution of capital by the labor factor is equal to the necessary capital to compensate each unit of labor. The elasticity of substitution σ for $Y = F(K, L)$ is calculated as follows:

$$\sigma_{KL} = - \frac{d \ln(K/L)}{d \ln \left(\frac{MY_K}{MY_L} \right)}$$

$$\frac{\partial F}{\partial K} dK + \frac{\partial F}{\partial L} dL = 0$$

In open form the equation can be written as follows:

$$MY_K dK + MY_L dL = 0$$

where, MY_K and MY_L accordingly, are the marginal rate of replacement of production (GDP) from capital and labor.

$$MY_K = \frac{\partial F}{\partial K}$$

$$MY_L = \frac{\partial F}{\partial L}$$

Even after logging, the CES function remains non-linear with respect to the parameters. Therefore, to estimate the parameters of this production function, the method of nonlinear least squares is used (Кубанива, М. Табара, М. Табара, С. Хасэбэ, Ю., 1991). At this time, the parameters are found by approximate numerical methods - the optimal method of approximation. These methods include the Marquardt method (Marquardt, 1963), which is a modification of the Newton-Gauss method (Björck, 1996), the LSM by Powelov, the Haybred method, and the Levenberg method (Levenberg, 1994).

We estimated the parameters of the CES production function for Azerbaijan, Russia and Kazakhstan using the World Bank database, by applying the Marquardt method on MathCat software. First, the statistical characteristics of the parameters were analyzed, and then a comparative analysis of the results with the results was carried out.



Findings

Speaking about the sustainable development of countries rich in natural resources, it is impossible not to take into account the impact of natural resources on economic development. In particular, revenues from fuel can be a significant level of public revenues. In the ranking, the share of oil revenues in GDP compiled by The Global Economy, Azerbaijan is among the top ten countries (https://www.theglobaleconomy.com/rankings/Oil_revenue/).

This figure is 17.87% for Azerbaijan, 10.19% for Kazakhstan and 6.43% for Russia. Among world exporters of crude oil in 2018, Russia (11.5%) is second only to Saudi Arabia (15.9%) (<http://www.worldstopexports.com/worlds-top-oil-exports-country/>).

It should be noted that the indexation was carried out taking into account the corresponding deflator to reflect the collected statistical data on the economic performance of the three countries in real terms.

Table 1. Statistics for Azerbaijan

Years	GDP (current million USD)	Gross fixed capital (current million USD)	Labor force (totsl)
2006	20,982.99	6,232.15	3978833
2007	33,050.34	7,072.60	4077049
2008	48,852.48	9,076.19	4218774
2009	44,291.49	8,335.41	4358813
2010	52,902.70	9,610.69	4454608
2011	65,951.63	13,307.46	4542765
2012	69,683.94	15,647.66	4626294
2013	74,164.44	19,129.89	4700437
2014	75,244.29	20,639.81	4788222
2015	53,074.37	14,768.10	4873418
2016	37,867.52	9,480.04	4966648
2017	40,747.79	9,624.80	5032491

Source: World Bank data (<https://data.worldbank.org/indicator>)

Based on the indicators 2006-2017 (Table 1) using the Marquardt method, the following results were obtained for the parameters of the CES production function for the economy of Azerbaijan:

$$Y = 1,0338e^{0,165t} (0,8107K^{-2,638759} + 0,1893L^{-2,638759})^{-0,378966}$$

$$R^2 = 0,954974 \quad DW=1,265828 \quad \sigma=0,274819$$

Table 2. Statistics for Russia

Years	GDP (current million USD)	Gross fixed capital (current million USD)	Labor force (totsl)
2006	989,930.54	183,170.90	74501961
2007	1,299,705.76	272,876.53	75523314
2008	1,660,846.39	370,210.32	76066468
2009	1,222,644.28	268,922.26	76118376
2010	1,524,917.47	329,769.26	75969251
2011	2,051,661.73	440,843.64	76121763
2012	2,210,256.98	476,306.59	75909195
2013	2,297,128.04	500,221.44	75519863
2014	2,063,662.67	438,480.70	75327362
2015	1,363,705.27	284,319.89	75135866
2016	1,282,663.61	281,265.33	75036834
2017	1,578,417.21	352,588.49	74308529

Source: World Bank Data



Based on the indicators 2006-2017 (Table 2) using the Marquardt method, the following results were obtained for the parameters of the CES production function for the economy of Russia:

$$Y = 0,851247e^{0,0029t} (0,999994K^{-1,947245} + 0,000006L^{-1,947245})^{-0,513546}$$

$$R^2 = 0,99879 \quad DW=0,893916 \quad \sigma=0,3393$$

Table 3. Statistics for Kazakhstan

Years	GDP (current million USD)	Gross fixed capital (current million USD)	Labor force (total)
2006	81,003.88	24,461.91	8080705
2007	104,849.89	31,473.36	8226662
2008	133,441.61	35,817.30	8382549
2009	115,308.66	32,046.27	8573022
2010	148,047.35	36,015.99	8719779
2011	192,626.51	41,346.71	8806519
2012	207,998.57	47,430.24	8887384
2013	236,634.55	51,780.82	8961806
2014	221,415.57	47,728.14	9050189
2015	184,388.43	42,190.88	9109811
2016	137,278.32	31,188.62	9172043
2017	162,886.87	35,651.48	9222689

Source: World Bank data

Based on the indicators 2006-2017 (Table 3) using the Marquardt method, the following results were obtained for the parameters of the CES production function for the economy of Kazakhstan:

$$Y = 0,974e^{0,048t} (0,982K^{-0,00097} + 0,018L^{-0,00097})^{-1034,4}$$

$$R^2 = 0,978757 \quad DW=3,012977 \quad \sigma=0,999034$$

Estimated values of statistical characteristics show that the model is adequate.

Results, Conclusions and Recommendations

The results show an imbalance between the capital and the labor markets and the deterioration of disequilibrium compared with previous periods.

Table 4. Parameters of CES

Years	σ	δK	$(1-\delta)L$	A_0	ρ	λ
Azerbaijan	0,27	0,8	0,02	0,65	2,64	0,165
Russia	0,34	0,99	0,01	0,85	1,95	0,003
Kazakhstan	0,99	0,98	0,02	0,97	0,001	0,05

From the results, it can be seen that for each of these three countries the distribution coefficient for capital is significantly higher than is for the labor factor. This means that there is an excess of capital that cannot be started. This is typical for the countries rich in natural resources. The main reason for this process is the complex structure of increasing capital with oil revenues and low level of specialization of the existing labor force to launch this capital. So, the imbalance between education and capital is obvious. On the other hand, capital is more mobile than labor. The rapid import of modern capital created using high-tech, innovation and nanotechnology creates a shortage of qualified personnel to mobilize this capital. By directing this free capital to improving the quality of science and education, increasing the level of professionalism of the existing labor force, one can increase the productivity of using new technologies (Gylfason, 2001). Investment into knowledge economy and human capital leads to increased output in the economy.



In addition, the coefficient of elasticity of substitution, estimated by the CES production function, is significantly less than one for Azerbaijan and Russia and close to one for Kazakhstan. The study once again confirms that the assessment of the economies of countries with specific features (rich in natural resources) with the Cobb-Douglas production function may not give the best result. In this case, only according to the results of Kazakhstan, the coefficient of elasticity of substitution is close to unity, as initially assumed in the production function of Cobb-Douglas.

References

- Arrow K.J Chenery H.B. Minhas B.S. & Solow R.M. (1961). Capital-labor substitution and economic efficiency. *The Review of Economics and Statistics*, 43(3), pp. 225-250.
- Auty, R. (2001). *Resource Abundance and Economic Development*. Oxford: Oxford University Press.
- Bell, F. (1965). A note on the empirical estimation of the CES production function with the use of capital data. *The Review of Economics and Statistics*, 47(3), pp. 328-30.
- Björck, A. (1996). *Numerical methods for least squares problems*. Philadelphia: SIAM. Retrieved from ISBN 0-89871-360-9
- Cooray, A. (2010). The Role of Education in Economic Growth. *Department of Economics, University of Wollongong, Working Paper 14-10*. Retrieved from <http://ro.uow.edu.au/commwkpapers/249>
- Desai, P. (1976). The production function and technical change in Postwar Soviet Industry: A reexamination. *The American Economic Review*, 66(3), pp. 372-381.
- Ferguson, C. (1965). Time-series production functions and technological progress in American manufacturing industry. *Journal of Political Economy*, 73(2), pp. 135-147.
- Gylfason, T. (2001). Natural Resources, Education and Economic Development. *European Economic Review*, 847-859. doi:10.1016/S0014-2921(01)00127-1
- Hasanli, Y. & Hasanov, R. (2002). *Application of Mathematical Methods in Economic Research*. Baku: Elm.
- Hasanli, Y. (1998). CES production function and its estimation (in Azerbaijan). *Scientific news of Azerbaijan National Academy of Sciences*, 6(Physico-Technical and Mathematical sciences), ss. 57-60.
- Hasanli, Y. (2013). The evaluation of mutual substitution elasticity of capital and labor factors by application CES function for economy of Azerbaijan. *The Journal of Economic Sciences: Theory and Practice*, 70(19), 77-96.
- Imanov, G. Hasanli, Y. (2001). *Socio-economic models of Azerbaijan economy. Macroeconomic analysis*. Baku, Azerbaijan: Elm.
- Kemfert, C. (1998). Estimated substitution elasticities of a nested CES production function approach for Germany. *Energy Economics*, 20(3), pp. 249-264.
- Kmenta, J. (1967). On the estimation of the CES production function. *International Economic Review*, 8, pp. 180-189.
- Kurz M. & Manne A.S. (1963). Engineering estimates of capital-labor in metal machining. *The American Economic Review*, 53(4), pp. 662-681.
- Levenberg, K. (1944). A Method for the Solution of Certain Non-Linear Problems in Least Squares. *Quarterly of Applied mathematics*, 2(2), 164-168. doi:10.1090/qam/10666
- Maddala, G. &. (1967). Estimation of returns to scale and the elasticity of substitution. *Journal of the Econometric Society*, 35(3/4), pp. 419-423.
- Marquardt, D. (1963). An Algorithm for Least Squares Estimation of Nonlinear parameters. *SIAM Journal on Applied Mathematics*, 11(2), 431-441. doi:10.1137.0111030
- Mattieu, L., Gian Luigi Mazzi, Paola Monperrus-Veroni, Frederic Reyne. (2009). A new production function estimate of the euro area output gap. *Journal of Forecasting*. doi:<https://doi.org/10.1002/for.1157>
- Miller, E. (2008, June). An Assessment of CES and Cobb-Douglas Production Functions. *Congressional Budget Office*.



- Romer, P. M. (1990). Endogenous Technological Change. *Journal of Political Economy*, 71-102.
- Sato, R. (1970). The estimation of biased technical progress and the production function. *International Economic Review*, 11(2), pp. 179-208.
- Songu, M. & Sarac Elmas, F. (2017). Cobb-Duglas, CES, VES ve Translog Üretim Fonksiyonlarının Tahminleri Üzerine Genel bir Değerlendirme. *Bulletin of Economic Theory and Analysis*, 235-278.
- Zarembka, P. (1970). On the empirical relevance of the CES production function. *The Review of Economics and statistics*, 52(1), pp. 47-53.
- Кубанива, М. Табата, М. Табата, С. Хасэбэ, Ю. (1991). *Математическая экономика на персональном компьютере: пер. с японского*. (М. Кубанива, Ред.) Москва: Финансы и статистика.



Linguistic, Social and Cultural Factors Influencing Foreign Language Learning in the Context of Higher Education

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Abstract

This research aims to reveal main linguistic and socio-cultural factors influencing foreign language learning from students' perspectives at non-linguistic (engineering) department in Kazakhstani context, as well as to analyze the relationship between these factors and English language proficiency as a result of foreign language learning process. The results of this study are presented in three stages using the following data collection instruments: observation, questionnaire and interview. The first analysis focuses attention on the observation of the factors that might influence engineering students' language proficiency. The second analysis considers the influences of linguistic, cultural and social factors on the development of learner's foreign language proficiency. The last set of analyses considers the students' perceptions of the most important linguistic, cultural and social factors influencing their foreign language learning. It can be concluded that the most influential factors from the students' perspectives are the social factors but not linguistic, cultural peculiarities of the foreign language.

Key words: Linguistic Factors, Socio-Cultural Factors, Foreign Language Learning, Proficiency.

Introduction

We strongly believe that learning a foreign language within tertiary education plays a promoting role in foreign language proficiency development of non-linguistic major students. Therefore, it is important for teachers and learners not only to understand the goal and ways of language teaching and learning, but to be aware of different factors possibly affecting these processes in order to reduce their negative impact as well to strengthen the positive ones. To consider foreign language education within any educational institution seems to be impossible without taking into account the Acquisition/Learning Hypothesis (Krashen, 1982) that presents two distinctive ways of developing communicative competence in a second or foreign language, where *acquisition* refers to informal, unconscious process whereas *learning* refers to formal, conscious process. In order to properly organize the formal study, we need to take into account all characteristics of foreign language learning which



could be compared with 'complex nonlinear systems, a dynamic, complex, open, self-organizing, feedback sensitive, and constrained by strange attractors' (Larsen-Freeman, 1997: 142); as 'long and complex undertaking' (Brown, 2000:1). In the process of integrating into a new language, a new culture, a new way of thinking, feeling, and acting a person is affected by various factors. Any foreign language methodology in the classroom is affected not only by the teachers, but also by the students, their expectations of appropriate social roles, the institutional demands, and factors connected to the wider sociocultural context in which the instruction takes place (Larsen-Freeman, 2000: 7).

The concept of "factor" (lat. factor-making, producing) is defined as the cause, the driving force of any process, determining its nature and result. Factors are the environment of influence on students in the learning process. There are many general factors that influence second language learning such as age, aptitude, intelligence, cognitive styles, attitudes, motivation, and personality, teachers' expectations, classroom environment (Ellis, 1994; Ortega, 2009). These and others could be classified into external factors (e.g., social, interactive, input based) and internal factors (e.g., LI transfer, cognitive processes, linguistic universals) (Ellis, 1994; Mirhadizadeh, 2016). The factors could be classified from the point of a personality of learners: age, learning opportunities (both inside and outside the classroom), motivation to learn, and individual differences in aptitude for language learning (Lightbown & Spada, 2001) and from the point of teachers: teaching techniques, methods and strategies (Ortega, 2009; Nguyen, Warren & Fehring, 2014).

Regarding non-linguistic specialties Rizhova E. W. (2011) revealed biological, social, affective and cognitive factors influencing the process of studying foreign languages, paying more attention to social-affective, presented by motivation and its two models: instrumental and integrative (Gardner & Lambert, 1959). Instrumental motivation refers to learning to accomplish a task, such as passing a course, while integrative motivation refers to a favorable attitude toward the target language community, possibly a wish to integrate and adapt to a new target culture through the use of the language. The importance of instrumental motivation is being concerned more in the later studies while the significance of integrative motivation has continued to be emphasized. Both types of motivation are important to rise in students during foreign language learning at nonlinguistic department.

Considering all factors relating to second or foreign language learning simultaneously would be extremely difficult within the frame of this article, therefore we aimed to investigate linguistic, social and cultural factors influencing foreign language learning at nonlinguistic department in the context of Kazakhstani higher education.

Linguistic factors

There is a general theory that acquisition of a foreign language is influenced by the languages, that learners already know. It can be reflected in the learner's foreign accent, pronunciation, syntax, the way of unconscious structuring a sentence based on the patterns of mother tongue, use of wrong lexis, usually presented by false friends and others that may be referred to cross-linguistic interference (Mitchell and Myles, 2001). Other assumption of Contrastive Analysis Hypothesis (CAH) indicates that the more differences between first and second languages can be found, the more difficult it is for a learner to acquire a foreign language (Brown, 2000:207). At the same time, we need to take into account that the learner's experience gained in their first language (mother tongue) acquisition plays an important role in learning first and second foreign languages and in spite of cross-linguistic interference of the first language it allows to master the foreign language terms and notions quickly and consciously (Baryshnikov, 1998). The respondents of our study are mostly students, whose first language (mother tongue) is Kazakh, second language is Russian which is accepted as interethnic language because of multilingual context in Kazakhstan, and English is learnt as a foreign language. Moreover, according to institutional language policy, Suleyman Demirel University students learn additionally Turkish language. All these languages belong to different language groups: Slavic and Germanic, except Turkish and Kazakh



languages, belonging to Turkic group. Kazakhstani language learners are required to become multilingual specialists, regardless of the chosen major: linguistic or non-linguistic. But whether the different language background and diversity of languages learnt by students influences the development of English language proficiency is going to be revealed in our research.

Social factors

It is obvious, that a human being learns languages as a means of communication: perceive, express and interact with others only in a society that encourages its use, therefore the social factor is defined as a driving force for the existence and development of any language. We strongly agree, that social factors include parental and student's attitude, learning environment, learning opportunities, size of the learning group, student-teacher interaction, teacher's techniques and socio-economic status (Phon, 2017). Social environment includes not only relations and attitudes but also physical space, necessary for language learning: size & form of the classroom, light, noise, furniture, decoration, language equipment that may motivate all together foreign language learning (Lozanov, 1978; Rizhova, 2011: 778). Parental and teachers' attitudes toward English language affect learner's attitudinal and motivational characteristics, encourage and supervise learners while learning process. Attitude refers to the way a person views something or tends to behave toward it, often in a critical way (Collins, 2004). Apart from their attitudes, the socio-economic status of parents and the type of the educational institution may influence the process of foreign language learning. Our observations showed that the students who were enrolled in engineering department came from various schools (ordinary secondary school, gymnasium, lyceum, college) and had different foreign language background. As we have noted, students' attitude toward English language will influence learners' academic success in general (Kazazoğlu, 2013). Meanwhile, motivation is also a key concept of the attitude in which students' achievements primarily depend on it. Lightbown and Spada (2001) claim that motivated students are noticed by their strong interest in the subject matter, active participation and their efforts to be seen in the classroom. Also, it should be taken into account that learners at the age of 17-18 are more socially oriented, good at negotiating, understanding and sustaining conversations, use more clarification requests and confirmation checks and prefer to cooperate better than young learners. Thus, one of the focuses of our study is to reveal the students' perceptions of social factors in foreign language learning.

Cultural factors

Majority of scientists accept language and culture as an egg and chicken question, because they are inseparable. Learners of a foreign language have to develop the knowledge of culture as well as knowledge of the language. Disregard of this connection may result in cultural shock and misunderstanding, disorientation, frustration, and anxiety (Schumann, 1986). For a student who has low level of foreign language proficiency (most of Kazakhstani non-linguistic department students), learning new language and culture: values, beliefs, worldview and mentality seems to be difficult, if teacher does not connect student's own cultural views with culture of the target language. This is crucially significant for students of Asian culture who study contrary different language and cultural pattern from their own. Moreover, cultures which are somehow similar can increase social contact, whereas cultures who are not congruent do not (Spolsky, 2004). According to Brown, Malmkjær and Williams (1996), cultural factors include problems of cultural stereotypes, learning a second culture, attitude toward certain culture, the relationship between thought, language and culture. Cultural differences may cause misunderstandings, since the same words, expressions; non-verbal behavior may not mean the same to various peoples. The main source of learning culture in connection with language for Kazakhstani learners are textbooks of foreign editions, in our case - New English File. The question whether this course book at Intermediate level contains cultural issues or not was a subject of critical analysis done by Seda Tash (2010). The researcher claims that this textbook is focused on culture of the target language, it does not consider Asian culture, does not promote an awareness of cultural differences that is a base for developing intercultural communicative competence (Byram, 1990). We also claim that most assignments in the textbook are designed from the point of western mentality, which may cause some problems to our learners.



The question of whether the students of non-linguistic department are aware of these factors that influence their foreign language learning and what relationship is between these factors and English language proficiency as a result of language learning has fostered us to conduct the following research.

Method

The researchers used both quantitative and qualitative methods to ensure the validity, reliability and objectiveness of the study. The correlational analysis was applied to measure two or more factors and to examine whether they are associated and to what extent they are correlated with participants' language proficiency. The participants of the study included 100 first and second year engineering faculty students of Suleyman Demirel University (Kazakhstan) that are involved in a foreign language learning. The researchers employed the following data gathering instruments: observation, questionnaire, focus group interview. Eight groups from engineering faculty were selected for non-participant observations and each observation lasted 50 minutes almost for four weeks. The main focus of the class observation was revealing the factors that are influencing the development of engineering students' English language proficiency. A structured Likert scale questionnaire was developed based on the observation results. Five point numerical scale was used to elicit the students' answers, ranging from 1 "strongly agree", to 5 "strongly disagree". Since some students did not have good level of English, this questionnaire was translated into Kazakh and Russian languages to achieve reliable results. It focused on revealing which factors are influencing positively or negatively, also to capture students' perceptions about the most important factors influencing their language proficiency. The questionnaire allowed researchers to collect data in a short and limited amount of time.

Interview was taken from ten 1st and 2nd year engineering students of various majors at engineering faculty, such as Information Systems, Computing systems and software, and Mathematics. As this study was interested in understanding the perceptions of students about a focused topic, it was felt that a focus group approach was most appropriate. The reason for utilizing a focus group, rather than individual interviews, was pragmatic and time efficient, as it is perceived as a tool that can provide relevant data (Kamberelis & Dimitriadis, 2013:3). The researcher can observe and listen to the interaction, thereby having a vantage point of picking up unnoticed phenomena. Observations and interviews were conducted by the researchers and were arranged with the permission of the teachers and with due consideration of their convenience and time availability.

Findings of observation

During observation of English lessons in eight groups the non-participant researcher has noticed the problems with classroom management and classroom set-up: overcrowded classes, mixed level students, grammar centered teacher's instructions, lack of the interactive activities and target language environment. Most of students are not satisfied with the way of providing opportunities in the classroom: to speak, to work in groups, in pairs and individually, to learn from each other, and practice language items in the class.

Findings of questionnaire

The data collected from the questionnaire was entered to IBM SPSS Statistics Viewer for coding and analysis. Spearman's rho correlation was used to calculate the relationship between students' levels of English proficiency as a result of their language learning and (i) social factors (student's attitude, learning environment, learning opportunities), (ii) cultural factors (differences & similarities of culture), (iii) linguistic factors (language differences & similarities). As for students' levels of English proficiency, the researchers took results of the engineering students' first placement tests from SDU Continuing Education Center (CEC), and results of current English proficiency test.

Table 1. Spearman's rho correlation coefficient (rs) between students' attitude (social factors) and students' language proficiency language proficiency

Proficiency Test Scores	Studying English in the future	Using English in professional life



Spearman's rho	Proficiency Test Scores	Correlation Coefficient	1,000	-,085	,087
		Sig. (2-tailed)	.	,485	,475
		N	100	100	100
	I wish to study English in the future	Correlation Coefficient	-,085	1,000	,216
		Sig. (2-tailed)	,485	.	,072
		N	100	100	100
	I expect it to be useful in my professional life	Correlation Coefficient	,087	,216	1,000
		Sig. (2-tailed)	,475	,072	.
		N	100	100	100

As can be seen in Table 1, there is no relationship between engineering students' English language proficiency ($r_s = -0.85, p = 0.485$) and students' attitude toward English language even if students' attitude is positive. The Spearman's rho correlation coefficient is lower than -1 and p value is higher than 0.005, it means there is no correlation between two things. The positive attitude toward language is considered as a positive factor that is influencing non-linguistic department student's language learning, however among above sub-questions the correlation between student's attitude and their language proficiency is the weakest. It means, engineering students are positive to learn English language because of need in their future professional life, but it is not enough to succeed in their learning.

Table 2. Spearman's rho correlation coefficient (r_s) between teacher's instruction and techniques in the classroom (social factor) and student's language proficiency

			Proficiency Test Scores	The teacher's technique and instructions
Spearman's rho	Proficiency Test Scores	Correlation Coefficient	1,000	,335**
		Sig. (2-tailed)	.	,005
		N	100	100
	I find English learning difficult because of the teacher's technique and instructions	Correlation Coefficient	,335**	1,000
		Sig. (2-tailed)	,005	.
		N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2 above shows that teacher's instruction and techniques in the classroom have moderately correlated with the engineering students' English language proficiency ($r_s = 0.335, p = 0.005$). Based on the findings, engineering students found learning environment, created by teacher not appropriate to learning, so this factor is affecting their language proficiency negatively. It means, teachers did not provide clear and effective instructions to the learners. The analysis reveals that teacher's techniques in the classroom have a huge effect on students' English proficiency levels.

Table 3. Spearman's rho correlation coefficient (r_s) between learning environment (social factor) and student's language proficiency

			The lack of the interactive activities	Proficiency Test Scores
Spearman's rho	I find English learning difficult due to the lack of the interactive activities	Correlation Coefficient	1,000	,493**
		Sig. (2-tailed)	.	,000
		N	100	100



Proficiency Test Scores	Correlation Coefficient	,493**	1,000
	Sig. (2-tailed)	,000	.
	N	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

As illustrated in Table 3, the lack of activities and learning opportunities are significantly correlated with the engineering students' English proficiency ($r_s=0.493$, $p=0.000$). Accordingly, the results of the analysis reveal a strong link between proficiency test levels of the students and interactive activities that are less used in the language learning classroom.

Table 4. Spearman's rho correlation coefficient (r_s) between cultural differences and attitude toward culture (cultural factors) with student's language proficiency

Spearman's rho	Proficiency Test Scores	Correlation Coefficient	Proficiency Test Scores	Inadequacy of some English assignments	Interest in American & British culture
			Proficiency Test Scores	Inadequacy of some English assignments	Interest in American & British culture
	Proficiency Test Scores	Correlation Coefficient	1,000	,442**	,010
		Sig. (2-tailed)	.	,046	,932
		N	100	100	100
	I find it difficult because some English tasks, assignments and exercises are not suited to our mentality (Cultural Factors)	Correlation Coefficient	,442**	1,000	-,142
		Sig. (2-tailed)	,046	.	,242
		N	100	100	100
	I would like to learn American & British culture because it will help to avoid misunderstandings (attitude toward culture)	Correlation Coefficient	,010	-,142	1,000
		Sig. (2-tailed)	,932	,242	.
		N	100	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4 demonstrates the relationship between students' cultural differences ($r_s=0.442$, $p=0.046$) and their language proficiency levels. The students found English learning difficult because some tasks, assignments and exercises were not suited to their mentality. Cultural differences have moderately correlated with engineering students' language proficiency; it means the differences in mentalities have significant impact on student's English language proficiency. However, students' positive attitude toward American and British cultures has no correlation ($r_s=0.010$, $p=0.932$) with their language proficiency. It shows whatever their attitudes toward western cultures are it does not influence their language learning.

Table 5. Spearman's rho correlation coefficient (r_s) between language differences (linguistic factors) with student's language proficiency

Spearman's rho	Proficiency Test Scores	Correlation Coefficient	Proficiency Test Scores	First and Second, Language Difference	First and Second, Language Similarities
			Proficiency Test Scores	First and Second, Language Difference	First and Second, Language Similarities
	Proficiency Test Scores	Correlation Coefficient	1,000	,168	,034
		Sig. (2-tailed)	.	,166	,780
		N	100	100	100



I find it difficult to learn grammatical structures of English language because it is different from my mother tongue (LF, Language Differences)	Correlation Coefficient	,168	1,000	,126
	Sig. (2-tailed)	,166	.	,297
	N	100	100	100
I find it easy to learn grammatical structures of English language because it is similar with Russian grammar (Linguistic Factors, LS)	Correlation Coefficient	,034	,126	1,000
	Sig. (2-tailed)	,780	,297	.
	N	100	100	100

In table 5, according to Spearman's rho correlation coefficient, there is no relationship between student's language differences (similarities) and their language proficiency levels. It is noticeable that coefficient of language differences ($r_s=0.168$, $p=0.166$) is higher than $+/-1$, so it does not demonstrate any impacts on engineering students' English language proficiency. Moreover, even if students have similarities in language items, there is no progress in their language proficiency. It has no positive or negative effect on students' language proficiency. Some students found English learning difficult because some language items were not similar to their mother tongue; however some of them found several similar items. Although there are similarities and differences in languages, they have no impact on engineering student's language proficiency levels.

Focus group findings

In addition to the results of questionnaire and classroom observation, ten students were interviewed.

Participant's perceptions and awareness of the factors influencing their language learning

The focus group interviews explored engineering students' awareness and perceptions of the most important factors influencing the development of their English language proficiency. Amongst the participants in this sample, it was relatively common to find the definition of factors as the obstacles or certain things which prevent them from learning the target language.

"I think the definition of the factor is something that affects our process of learning foreign language, isn't it?"

S1

"In my opinion, factors are things that are preventing us to learn English language." S2

Social – affective factors (attitudes towards English language and culture)

The researchers believe that a positive attitude towards English language and culture will positively influence engineering students' language proficiency whereas negative attitude negatively. The nine students had positive attitude toward English language whilst only one student showed his negative attitude. Following comments on positive attitudes towards English language learning:

"I learn English because I need it for my future, for my job and education." S3

"I think it is world language, so nowadays every person should speak in English." S2

"My profession is related to Computer sciences; therefore, it is important to know English to be competitive in the future." S1

From these comments, we can conclude that engineering students have real understanding of the importance of English language, even though their language proficiency tests showed low proficiency level, in average 75 points. From ten students only one student has a negative attitude, however this student also recognizes the importance of English.



"I thought I would not need English in my profession because we are engineers, not linguists. It turned out almost all lessons and lectures are in English." S10

Social factors (learning environment and opportunities)

The mixed level students and large classes are considered as social factors (environment). Moreover, respondents claimed that teachers could not cope with the teaching process due to the mixed level students and large classes. Several of these students commented that large classes influence the quality of learning and teaching.

"I feel somehow embarrassed in front of people who are speaking very well and I may not speak." S5

"Teacher cannot pay attention to every student's learning process." S4

"Yes, it influences a lot, because a lot of students make a huge noise." S1

However, one of the respondents claimed that he enjoys studying lessons in mixed level classes, because higher level students motivate him. It can be concluded that engineering students perceive these factors differently. Learning environment is also important for both teachers and students. Interviewer aimed to identify whether teacher provides learning opportunities such as speaking in the classroom, working in pairs, practicing language items in class, discussing, sharing opinions and preparing special learning environment for students. This aim was derived from students' responses about their teacher's techniques; therefore, it is essential to explore whether these factors influence engineering student's language proficiency or not.

"No. We do not have time for different kind of activities and our teacher is not able to spend classroom time properly." S7

"No, in our group we do not have such things. In my opinion, in most English classes our teacher does not create such atmosphere in class, therefore we cannot speak, but we should learn how to speak." S6

The students claimed that lack of the speaking activities, lack of the suitable learning environment influence their language learning process. Engineering students proposed that it would be better if each teacher found a strategy for every student.

"Teacher spends time to explain only grammar and to do a lot of exercises. We do not have games, debates and different kind of activities." S5

"I cannot remember such kind of activities; we are having only grammatical activities." S8

It shows that teachers who teach engineers more concentrate on grammatical exercises rather than speaking. However, engineering students are aware of the importance of speaking competency and they require speaking activities.

Linguistic factors (language differences, native language effect)

Ortega (2009) claims that language differences and similarities influence learner's second language proficiency. In this study, the participants are foreign language learners who know at least three languages (Kazakh, Russian, and Turkish), the researchers assume an awareness of three and more languages will influence engineering students' language proficiency positively, because of gaining language learning experience.

The students were responding to the statement "some believe that Russian speakers learn English easier and faster than Kazakh speakers, because some elements of Russian language are similar to English".

"No, I do not think so. First of all, our Kazakhstan is multinational, so that's why for us it is easier to gain another language." S7



"I think no. For example, in our group there are a lot of students whose first language is Russian, but they have low level of English competency." S8

"I think to learn pronunciation and words are easier for Kazakhs rather than Russian speakers." S4

Majority of participants are Kazakh speakers; they perceive that language differences do not interfere with learning a foreign language and to the students' mind Kazakh speakers tend to learn other languages easier than Russian speakers.

Cultural factors (cultural differences)

The lack of knowledge of cultural differences may cause misunderstanding and, as a consequence, demotivation to continue foreign language learning. Obviously, each culture has its own rules, norms and values. It might be assumed that the majority of English course books describe life and situations from a western point of view which can be difficult for Kazakhstani learners' perception.

"Sometimes, we may have some topics in our course books that are not suitable to our mentality. In such kind of topics, I cannot find the way to speak." S3

Attitudes towards certain culture will also influence engineering students' foreign language competency either negatively or positively. It is supposed that students who have positive attitude towards culture will have good level of proficiency whereas students with negative attitude will have low level of English language.

"I think cultural differences will not influence our language learning, because we should tolerate them, every culture has own crazy things." S7

"I grew up in Kazakh family and I have some kind of comprehension what to do and what not to do. But in America every person is free, and they do not get shamed." S3

It can be seen that amongst participants some of the respondents do not consider cultural differences as a negative factor influencing engineering students' language proficiency. They believe every culture has its own differences and foreign language learners should tolerate them. Students should learn differences in cultures in order to avoid misunderstandings. Moreover, they conclude that in every English class, teachers should be able to teach culture of the target language even in non-linguistic departments.

Results, Conclusions and Recommendations

According to the findings, the participants' English language proficiency was influenced mostly by social factors such as overcrowded classes, mixed level students, ineffective learning environment and lack of learning opportunities for language interaction. As for cultural environment, we have considered learners' cultural background, differences in cultures that should be in obligatory way understood by the foreign language teacher and explained to the foreign language learners in order to avoid any language and cultural misunderstandings. It was found that students' native language (Kazakh) influenced positively their foreign language proficiency development, because of adaptive peculiarities of Kazakh language in comparison with Russian language. Each factor contributes to the success and failure of language learners differently; however, from students' perception the most crucial factors in their English language learning are not linguistic or cultural factors, but the social ones because they need to use English for the interpersonal and professional communication. This research provides readers with a better comprehension of the process of learning English by non-linguistic department students (engineering). It gives them some glimpses of challenges that the students at non-linguistic department face, difficulties that they have in life-long foreign language learning. The study suggests the learners, teachers, administrators, and educational policymakers to seek for more measures to weaken negative factors and strengthen positive factors which influence the foreign language learning and the development of language proficiency.



References

- Baryshnikov, N. (1998). French as a second foreign language and peculiarities of teaching it in school. *Foreign languages in school*. № 5.
- Brown, G., Malmkjær, K., & Williams, J. (Eds.) (1996). Performance and competence in second language acquisition.
- Brown, H. D. (2000). Principles of Language Learning and Teaching. Pearson Education.
- Byram, M. (1990). [Teaching Culture and Language: Towards an Integrated Model] in (Byram, M. and Buttles, D.) (Eds): *Mediating Languages and Cultures: Towards an Intercultural Theory of Foreign Language Education*: Clevedon, Philadelphia: Multilingual Matters.
- Collins, H. (2004). Collins English dictionary. Glasgow: Harper Collins.
- Ellis, R. (1994). The Study of Second Language Acquisition. Oxford: Oxford. University Press
- Gardner, R. C., & Lambert, W. E. (1959). Motivational variables in second language acquisition. *Canadian Journal of Psychology*
- Kazazoglu, S. (2013). Dictation as a language learning tool. *Procedia-Social and Behavioral Sciences*, 70, 1338-1346.
- Krashen, S. (1982). Principles and practice in second language acquisition. University of Southern California.
- Kumagai Y. (1994). The Effects of Culture on Language Learning and Ways of Communication: The Japanese Case", University of Massachusetts Amher.
- Larsen-Freeman, D. (1997). Chaos/complexity science and second language acquisition. *Applied Linguistics*, 18(2), 141-165.
- Larsen-Freeman, D. (2000). Techniques and principles in language teaching. Oxford University Press.
- Lightbown, P. M., & Spada, N. (2001). Factors affecting second language learning. *English language teaching in its social context*, 28-43.
- Lozanov, G. (1978). Suggestology and Outlines of Suggestopedia; Gordon and Breach, New York, London, Paris, 1978
- Mamonova, L.I. (2012). Factors affecting the formation of general professional competencies of university students. Basic research, 2 (6).
- Mirhadizadeh, N. (2016). Internal factors, external factors in language learning. *International Journal of Modern Language Teaching and Learning* Available online at www.ijmtl.com. Vol. 1, Issue 5, 2016, pp.188-196 ISSN: 2367-9328
- Mitchell R. & Myles F. (2001). Second language learning: Key concepts of learning and acquisition. *English language teaching in its social context*, 11-27.
- Nguyen, H. T., Warren, W., & Fehring, H. (2014). Factors Affecting English Language Teaching and Learning in Higher Education. *English Language Teaching*, 7(8), 94-105
- Ortega, L. (2009). Understanding Second Language Acquisition. (2nd ed., pp. 24-45). New York: Routledge.
- Phon, S. (2017). Factors affecting the English language proficiency of students majoring in English at a rural university in Cambodia. *UC Occasional Paper Series*, 69.
- Rizhova E. W. (2011). The factor analysis of teaching affectivity of foreign languages for students of non-linguistic specialties in a Pedagogical University. *Izv.Penz.gos. pedagog. univ.im.i V. G. Belinskogo*. 776-781.
- Schumann J. (1986). Research on the acculturation model for second language acquisition // *Journal of Multilingual and Multicultural Development*. 1986. Vol. 5. P. 379-392
- Seda, Tash (2010). A critical analysis of New English File series in terms of culture teaching. *ODÜ Sosyal Bilimler Enstitüsü Sosyal Bilimler Aratırmaları Dergisi*. Issn: 1309-9302 <http://sobiad.odu.edu.tr/Cilt:1Sayı:2Aralık>
- Spolsky, B. (2004). Language policy. Cambridge University Press.



Problems and Prospects in the Applying Methods of Analysis Educational Data

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Abstract

At the present stage, education is the most important component of the development of a country's economic growth. Often a changing situation requires high professionalism and considerable intellectual effort to make an effective decision. The increase in information flows and the analysis of relevant information generated by the participants in the educational process plays an important role in the process of quality management of the education process. The creation of training systems and the spread of network technology has led to the accumulation of a large amount of data, and this has in turn aroused great interest in the study of Data Mining methods used to analyze the new type of educational data. In this paper, a comparison of methods for analyzing educational data (EDM) and learning analytics (LA) was made, and attention to their peculiarities was paid.

Keywords: Intelligent analysis of educational data, Learning analytics, E-learning, Big Data

Introduction

In connection with the active use of digital technologies and the development of e-learning systems during the traditional educational process, relatively large data arrays are accumulated, and therefore, in recent years, there has been an exponential growth of data in the educational sector. This has led to the emergence of a new direction - the analysis of educational data (Educational Data Mining - EDM) (Baker & Siemens, 2012) in the field of artificial intelligence in the early 2000s. EDM is an interdisciplinary area that originated at the junction of other disciplines.

In fact, EDM can be represented as a combination of three main areas: computer science, education, and statistics. The intersection of these three areas also forms other disciplines such as computer-aided learning, DM and machine learning, and Learning analytics (LA), which are closely related to EDM (Fig.1). Of all above-mentioned areas, LA is the area most relevant to EDM and can be defined as measuring, collecting, analyzing, and presenting data about students, education objectives and optimization, and the conditions in which learning takes place. It is focused on decision making based on data generated in the learning process.

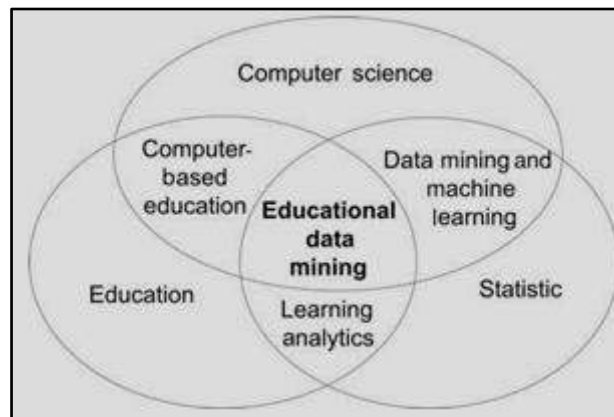


Fig.1. Main areas related to Educational Data Mining (EDM)

EDM develops, improves methods for processing data generated in the learning process and extracts patterns from them. For a certain session of the electronic educational environment (EEE), some amount of data containing specific details for analysis is generated. Before EOS, the flow of information required sophisticated methods to collect, analyze and interpret student tracks to regulate and improve education. LA emerged as a knowledge discovery paradigm that provides valuable insights and helps interested parties understand the learning process and its implications.

In order to extract patterns in the educational process, EDM methods use various types of data, helping to improve the design of the educational environment and the educational process.

Despite the development of high information technologies and the e-learning method, each site visitor faces some problems due to the lack of direct human contact, i.e. there is a certain barrier in this area of application. This is due to the lack of preparedness of educational workers in the interpretation of the volume of big data and the learning process, as well as specialists in the relevant field. After examining some of the similarities and differences between the EDM and LA methods, we can conclude, “EDM focuses more on methods and methodologies, and LA focuses on applications” (Ferguson, 2012).

The purpose of this article is to set out the features of the EDM and LA methods for preventing a barrier in this area, to consider the features of these two relatively new and increasingly popular areas of research related to the collection, analysis and interpretation of educational data, and to explore problems and trends caused by the increasing enormous growth of information (Belonozhko et al, 2017).

The essence of the research is presented in the following sections of the work:

- The emergence and general objectives of EDM and LA methods;
- Features and advantages of EDM in the educational process;
- The main similarities and differences between EDM and LA methods;
- Directions of research: problems and solutions, trends;
- Conclusions.

Research methods

The methodological basis of the study was a system-evolutionary theoretical approach based on the complementarity of system principles with the principles of evolutionary development, including the concept of classical analysis.



At present, a tendency has been outlined for the development of a comprehensive science of education - the so-called educational science or educology, the main theoretical constructs of which can serve as a methodological basis for the development of the education economy.

The article considers the methodology of education informatization as a purposeful organization of the process of providing the education sector with methods, technology and practice for creating and making optimal use of scientific, pedagogical, educational and methodological and software and technological developments aimed at realizing the didactic opportunities of information and communication technologies used in comfortable and health-saving conditions.

The emergence and general objectives of EDM and LA methods

Since the 80s of the 20th century, the creation of training systems and the spread of network technology has led to the accumulation of a large amount of data, and this has had in turn aroused great interest in the study of Data Mining methods used to analyze the new type of educational data. Thanks to technology similar to learning management systems such as Moodle, Sakai and ILIAS, it has become possible to obtain information about student behavior outside the traditional educational environment. At the same time, at international conferences on the use of artificial intelligence methods in education (International Conference on Artificial Intelligence in Education, International Conference on Intelligent Tutoring Systems, etc.) (Romero & Ventura, 2010), regular seminars dedicated to the development of methods in the educational sector were held (Belonozhko et al, 2017).

The evolution of learning analytics has gone through three eras (Peña-Ayala, 2017), these periods are closely related to the creation and development of the Society for Learning Analytics Research (SoLAR). The first epoch corresponded to the earliest jobs published until 2011. A job printed in 1996 examines the scholarship report declared by Boyer (Boyer, 1996), where he analyzed American higher education.

The second era began in 2011 with the goal of encouraging and supporting research, cooperation, and the spread of LA labor throughout the world and continued until 2013. Separate articles were published on journals and materials of the LAK conference (Learning Analytics & Knowledge Conference), cited during this period.

As for the third and current epoch, this one began in 2014 and was still ongoing. LA is currently receiving more attention at conferences and journals indexed by TR-JCR (Thomson Reuters - Journal Citation Reports).

The progress of work on LA, presented at the LAK 2014 to 2017 conferences, is shown in Fig.2 to highlight the evolution of complete articles in terms of number and diversity based on the three categories of the proposed LA taxonomy.

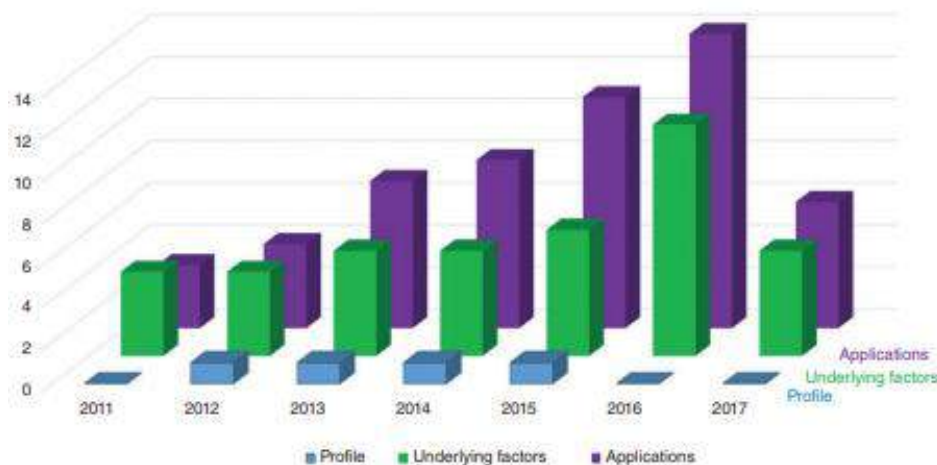




Fig.2. Count of full papers presented in LAK-2011 to LAK-2017 classified by the category

The popularity of the existing two methodologies - EDM and LA is due to the following factors. First, statistical methods, methods of machine learning and data collection, and the development of predictive models or decision rules are powerful mathematical tools in the field of educational data analysis, and new technologies expand their capabilities. Secondly, there is increasing interest in using a data-driven approach to make better decisions (Daradoumis et al, 2010) in the educational field to improve the quality of the learning process.

The main essence of EDM and LA is to extract information from data related to education. Information may be targeted to several stakeholders (Daradoumis et al, 2010) - instructors, students, managers and researchers. Each of them is an executor of certain functions: the instructor develops and organizes the learning process and evaluates its effectiveness (Daradoumis & Xhafa, 2009); students have the opportunity to get recommendations on resources, taking into account their performance, goals and motivation, analyze the results of the educational process, comparing them with other courses; managers, using information, more efficiently allocate human and material resources in order to improve the overall quality of their academic offerings; researchers conduct studies based on educational data.

Bienkowski's (Bienkowski et al, 2012) report about main problems of implementing and applying the methods of EDM and LA, and Peña-Ayala's work (Peña-Ayala, 2014), describing in detail the applications and methods of EDM, has a wide citation.

The next step in the development of this direction is connected with the holding of annual conferences devoted to EDM, the emergence of mass publicly available online courses (MEPs) with extensive data collection capabilities such as Khan Academy, Coursera, edX, Udacity, etc.

Features and advantages of EDM in the educational process

EDM features include goals, data, research methods and applications.

EDM objectives (Baker & Yacef, 2009) consist of:

1. Prediction of students' behavior in the learning process;
2. Development of new models and ways of presenting knowledge in the subject area;
3. Study of the interaction effects in the system "learning – student";
4. Development of knowledge about the phenomenon of learning and the psychology of students.

Complicated data, which educators usually do not deal with, present difficulties for analysis by traditional methods:

- The number of visits to the EEE website;
- the number of the most frequent visited pages;
- the number of views or downloads of the necessary materials for study;
- the information on browsers and frequency of visits to certain pages in time;
- the information on origin of visitors;
- the information on the number of visits and their duration for each student for a certain period of time;
- the information on the most popular keywords to search information in the system;
- the information about electronic resources downloaded, read or viewed by a student and about the amount of material for study.

Such data are provided in particular by the Moodle system (Kay et al, 2006; Nesbit et al, 2008).



The investigation of data generated in the learning process for possible analyzing the students' learning processes depending on their interaction with the environment (Baker et al, 2012), EDM develops and adapts various methods. Prediction, clustering, classification, search for sequential patterns, text mining and methods, search for binding rules specific to EDM - discovery with the help of models and data distillation for human judgment (Baker & Siemens, 2013) refer to traditional DM methods. Each of them is applied to solving problems of a specific nature (Romero & Ventura, 2010).

There are a number of advantages of EDM methods used by participants of the educational process - students and teachers. Students have the opportunity to adapt the course in terms of the level and assimilation of knowledge, since EEE, taking into account the duration and frequency of the visit, collects detailed information about each individual's action, processes and forms a learning model. Based on the analysis of the collected data, the EEE generates an adapted hint; the student is compensated for the loss of time for learning and is offered a new course for study. At the received hint, teachers study the situation and make adjustments in the content of the course, follow the learning process and classify students according to specific characteristics (by academic performance, activity, preliminary preparation, etc.) assess their knowledge. Because of these situations, the administration of EEE is able to evaluate the effectiveness of the course and improve its condition.

The main similarities and differences between EDM and LA methods

EDM usually looks for new patterns in data and develops new models; LA applies known prognostic models in education systems. EDM and LA are aimed at the same goal: to improve the quality of education by analyzing a huge amount of data to extract useful information for interested parties. These methods are closely related to each other; from this point of view, they have many common characteristics, at the same time, significant differences. These differences lie in the following features (Baker & Siemens, 2012):

- EDM allows studying the components of the system and the relationships between the components; LA enables to explore the whole system.
- EDM is based on educational software, while LA is connected to a specific semantic network.
- EDM performs automated adaptation; LA informs and enhances faculty and students.
- EDM uses classification, clustering, Bayesian modeling, prediction, detection with models, and visualization methods;
- LA aims at analyzing social networks, tonality and influence, predicting student success, analyzing the concept and models for creating meaning.

In some studies (Baker & Siemens, 2012), EDM and LA are considered as separate areas that study the automation of patterns' identification in educational data and ensure the preparation of data in a suitable form for human analysis. According to the abovementioned authors, these differences are broad trends in each community and, as a result, do not define the relevant areas. A similar idea is expressed in (Baker & Inventado, 2014), which states that "the overlap and differences between communities are largely limited, evolving from the interests and values of specific researchers, rather than reflecting a deeper philosophical split".

Bienkowski (Bienkowski et al, 2012) showed that LA covers more disciplines than EDM. In addition to computer science, statistics, psychology, and the sciences of learning, LA is related to computer science and sociology.

Before the automation of the process of obtaining, storing and processing data attempts have been made to draw conclusions on a sample of experts - specialists.

At the present stage of development of technical means, researchers are provided with enormous opportunities when working with a huge amount of data and people. Technical progress, leading us to the era of big data, leads



to faster and more reliable results, and in turn, solutions that are more effective. The combination of these two methodologies is a promising direction for government bodies as well.

Directions of research: problems and solutions, trends

According to the paper we can say that these two areas are relatively new areas of research, and they still have a number of unsolved problems:

1. Lack of theoretical and practical knowledge among a significant proportion of teachers and managers regarding the use of the necessary tools. To solve this problem, researchers must disseminate their results by developing a data-driven culture in an educational environment (Romero & Ventura, 2013) by collaborating with a large number of teachers and/or students to evaluate their proposals during experiments to facilitate data analysis.
2. Additional costs for storing and managing data, because different data analysis packages may not always easily integrate with each other and assistive devices.
3. Ethics and personal privacy. The ethics provided in (Greller & Drachsler, 2012) should be taken into account at all stages of data analysis, from data collection to interpretation of results and decision-making. Consideration should be given to the ownership of student data that differs from country to country.
4. The specificity of the results in the field of EDM. Since most of the research on EDM was conducted in North America and Western Europe, the results obtained in them may differ significantly from those obtained in countries with different cultural traditions (Baker & Yacef, 2009)

Trends in future research on EDM are based on the following provisions (Belonozhko et al, 2017):

1. EDM tools must be fairly convenient, simple, and integrated into EOS and provide an interface for accessing data.
2. There should be possibility for uniformly describing the models obtained by using educational data.
3. Methods of data analysis should be adapted to the application of educational data.
4. The problem of incomplete data collected when using popular social networks - Facebook, V Kontakte, etc. should be eliminated through the integration of social networks into the educational environment and the performance of part of their functions by Massive Open Online Courses (MOOCs).

The use of EDM and LA methods in network environments is determined by the generation of large educational data with dimensions that go beyond the capabilities of common software tools for capturing, storing, managing, and processing in a reasonable amount of time (Snijders et al, 2012). The main differences between big data and analytics are volume, speed, and diversity (McAfee & Brynjolfsson, 2012).

The Environments MOOCs such as Coursera, edX or Class2Go of large universities, which have been popular since 2012, allow students from all over the world to attend a variety of courses, free of charge, to narrow the gap between educational opportunities associated with economic inequality. Typically, a large number of students are trained in such courses. This creates a problem of scalability of visitors (Kay et al, 2013), very high dropout rates and very different participation models (Clow, 2013).

The maximum potential of EDM and LA in MOOCs justifies itself in the diversity of students and the extremely high level of student instructors. Different origin of participants, language skills, goals, experience, and levels of education, needs and learning styles indicates the relevance of course personalization in the automation of these systems. It is known that the existing MOOCs' platforms provide limited data storage, adaptive MOOCs (aMOOCs) appear. To improve and personalize the management of MOOCs, it is proposed to use software agents that can redesign them according to the profile of each participant (Daradoumis et al, 2013). Unlike many MOOCs, described by sets of consecutive videos and quizzes, large companies such as Google or Amazon use algorithmic approaches to select searches, announcements, and purchase recommendations. Sonwalkar



(Sonwalkar, 2013) describes the development of the first aMOOCs platform, which is implemented using the cloud architecture of Amazon Web Services.

Adaptive learning is very relevant today. An avalanche of information flows and overloads, a rapidly changing modern world and the need for continuous learning require the development of new learning skills. Learning should be so dynamic as to allow the formation of personal learning pathways tuned to the level of knowledge and needs of a particular student.

Conclusions

Being relatively new and promising areas of research and improving educational experience, these two methods - EDM and LA are aimed at enhancement the educational process and help participants in this process - students, teachers and researchers to make more effective decisions using data. By increasing the capabilities of modern technical means of information processing and the availability of DM, statistical and machine learning methods, the growth of educational data has been increased.

One of the applications is the Internet environment, in which data is constantly generated with various formats and levels of hierarchy. Unlike traditional courses, dropout rates for online courses are higher. EDM and LA are mainly used to monitor students and groups and adapt learning experiences. The methods for analyzing educational data have many similarities and at the same time several differences. Despite their current improvements, there are some barriers to the use of EDM and LA educational environments.

The application of the analysis of educational data provides a number of advantages to the participants - students, teachers and administrators of the educational process. Using EDM allows students to tailor the course for fitting their abilities. In the system, according to the accumulated information about the student depending on the duration and frequency of viewing it, a learning model is formed.

Students are offered shortened paths for completion the course, considering their interest in passing tests and homework assignments. At the prompts of EEE, problems revealed by students' errors in tests and homework are identified, they are recommended additional materials for studying the course.

Obtaining information on the course of the educational process, teachers have the opportunity to improve the content of the materials, based on data on the frequency and distribution of errors; the performing students determine the causes of these errors and eliminate them.

References

- Baker, R., & Yacef, K. (2009). The State of Educational Data Mining in 2009: A Review and Future Visions. *JEDM | Journal of Educational Data Mining*, 1(1), 3-17. Retrieved from <https://jedm.educationaldatamining.org/index.php/JEDM/article/view/8>
- Baker, R., Siemens, G.: Educational data mining and learning analytics, in Cambridge handbook of the learning sciences (2nd edition), R. K. Sawyer, Ed., Cambridge, UK: Cambridge University Press, (in press) <http://www.columbia.edu/~rsb2162/BakerSiemensHandbook2013.pdf>
- Baker, R. S. J. D., Costa, E., Amorim, L., Magalhães, J., & Marinho, T. (2012). Mineração de Dados Educacionais: Conceitos, Técnicas, Ferramentas e Aplicações. *Jornada de Atualização em Informática na Educação*, 1, 1-29.
- Baker, R. S. J. D., & Inventado, P. S. (2014). Educational Data Mining and Learning Analytics. In J. A. Larusson, & B. White (Eds.), *Learning Analytics: from Research to Practice* (pp. 61-75). New York, NY: Springer.



- Belonozhko P.P., Karpenko A.P., Hramov D.A. Analiz obrazovatel'nyh dannyh: napravleniya i perspektivy primeneniya // Internet-zhurnal «NAUKOVEDENIE» Tom 9, №4 (2017) / URL: <http://naukovedenie.ru/PDF/15TVN417.pdf>
- Bienkowski, M., Feng, M., & Means, B. (2012). *Enhancing Teaching and Learning Through Educational Data Mining and Learning Analytics: An Issue Brief*. Retrieved from <http://tech.ed.gov/wp-content/uploads/2014/03/edm-la-brief.pdf>
- Boyer, E. (1996). The scholarship of engagement. *Bulletin of the American Academy of Arts and Sciences*, 49(7), 18–33.
- Clow, D. (2013). MOOCs and the funnel of participation. In D. Suthers, K. Verbert, E. Duval, & X. Ochoa (Eds.), *Proceedings of the 3rd International Conference on Learning Analytics and Knowledge* (pp. 185–189). doi: <http://dx.doi.org/10.1145/2460296.2460332>
- Daradoumis, T., Juan, A., Lera-López, F., & Faulin, J. (2010). Using Collaboration Strategies to Support the Monitoring of Online Collaborative Learning Activity. In M. Lytras, P. O. D. Pablos, D. Avison, J. sipior, Q. Jin, W. Leal, D. Horner (Eds.), *Technology Enhanced Learning. Quality of Teaching and Educational Reform* (pp. 271–277). Springer Berlin Heidelberg. doi: http://dx.doi.org/10.1007/978-3-642-13166-0_39
- Daradoumis, T., Rodríguez-Ardura, I., Faulin, J., & Martínez-López, F. J. (2010). CRM Applied to Higher Education: Developing an e-Monitoring System to Improve Relationships in e-Learning Environments. *International Journal of Services Technology and Management*, 14(1), 103–125. doi: <http://dx.doi.org/10.1504/IJSTM.2010.032887>
- Daradoumis, T., Bassi, R., Xhafa, F., & Caballé, S. (2013). A review on massive e-learning (MOOC) design, delivery and assessment. *Proceedings of the 8th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing* (pp. 208–213). Compiegne, France. doi: <http://dx.doi.org/10.1109/3pgcic.2013.37>
- Ferguson, R. (2012). The State Of Learning Analytics in 2012: A Review and Future Challenges. Technical Report KMI-12-01, Knowledge Media Institute, The Open University, UK. <http://kmi.open.ac.uk/publications/techreport/kmi-12-01>
- Greller, W., & Drachsler, H. (2012). Translating Learning into Numbers: A Generic Framework for Learning Analytics. *Educational Technology & Society*, 15(3), 42–57.
- Kay J., Maisonneuve N., Yacef K., Zaiane O.R. Mining Patterns of Events in Students' Teamwork Data // Proceedings of Educational Data Mining Workshop. 2006, Taiwan. URL: http://www.educationaldatamining.org/ITS2006EDM/Kay_Yacef.pdf
- Kay, J., Reimann, P., Diebold, E., & Kummerfeld, B. (2013). MOOCs: So Many Learners, So Much Potential... *IEEE Intelligent Systems*, 28(3), 70–77. doi: <http://dx.doi.org/10.1109/MIS.2013.66>
- McAfee, A., & Brynjolfsson, E. (2012). Big Data: The Management Revolution. *Harvard Business Review*, 90(10), 60–66.
- Nesbit J.C., Xu Y., Winne P.H., Zhou M. Sequential pattern analysis software for educational event data // 6th International Conference on Methods and Techniques of Behavioral Research “Measuring Behaviour”, 26-28.08.2008, Maastricht, Netherlands, P. 1-5.
- Peña-Ayala, A. (2014). *Educational Data Mining: Applications and Trends*. New York, NY: Springer. doi: <http://dx.doi.org/10.1007/978-3-319-02738-8>
- Peña-Ayala, A. (2017). *Learning Analytics: Fundaments, Applications, and Trends: A View of the Current State of the Art to Enhance e-Learning*. Springer International Publishing. Consulté à l'adresse <https://books.google.fr/books?id=x8omDgAAQBAJ>
- Romero C.R., & Ventura, S. (2010). Educational data mining: A review of the state of the art. *IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews*, 40(6), 601-618. doi: <http://dx.doi.org/10.1109/TSMCC.2010.2053532>



- Siemens, G., & Baker, R. S. J. D. (2012). Learning analytics and educational data mining: towards communication and collaboration. In S. B. Shum, D. Gasevic, & R. Ferguson (Eds.), *Proceedings of the 2nd International Conference on Learning Analytics and Knowledge* (pp. 252–254). doi: <http://dx.doi.org/10.1145/2330601.2330661>
- Snijders, C., Matzat, U., & Reips, U.-D. (2012). ‘Big Data’: Big gaps of knowledge in the field of Internet science. *International Journal of Internet Science*, 7, 1-5.
- Sonwalkar, N. (2013). The First Adaptive MOOC: A Case Study on Pedagogy Framework and Scalable Cloud Architecture — Part I. *MOOCs Forum*, 1, 22–29. doi: 10.1089/mooc.2013.0007



Theoretical and Practical Approaches to the Influence of Public Service on the Relationship between Government and Business

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Abstract

The article discusses the importance of changing the model of the state administration in the period of reforms, and the need to find mechanisms for more effective management of relationships and interaction between business and the state. Was made an analysis of the need for changes in the decision-making process on the regulation of business activities; the extent to which entrepreneurs, government officials and political leaders participate in these decisions; different attitudes towards the opportunities and freedoms given to civil servants in making these decisions. The study drew attention to the experience of various developed countries, it was also shown the reforms taking place in public administration model of Azerbaijan. The article used methods of comparative analysis, logical generalization and synthesis. Were made recommendations to increase the efficiency of public administration.

Keywords: civil service, public administration, government intervention in the economy, government relations, model of partnership between state and private sector

Introduction

Development of competition, state and over-state (from international organizations, etc.) regulation of market activity, socio-demographic state of society and change of its composition, increase in ecological problems, increase in investment needs, cyber security, fight against terrorism, protection of national interests, the increase in the intensity of movement of human resources, modern technologies and capital, the formation of new logistic systems and a number of other similar factors determined increasing the role of public administration.

The interrelationship of the state with business has always been multilateral: from the acquisition of a controlling stake in an enterprise and participation in a meeting of directors of a representative, right up to informal negotiations about the composition of enterprise managers and the choice of strategic development goals.

It is obvious that both excessively high and extremely low levels of state intervention in the economy are equally harmful. At the same time, attention should be paid to two principal strategic elements: the conformity of the state functions with its potential and the strengthening of the state potential through the revitalization of public institutions. But in practice, this creates a number of problems. For example, the desire to achieve more, while possessing limited capabilities, may adversely affect the quality and a number of other indicators and, consequently, do more harm than good. That is why, if the state has limited capabilities, it is necessary to carefully determine and justify the direction, form and means of its intervention in the economy. At present, the government's refusal of unnecessary positions and obligations, and the transfer of management and leadership in a number of areas to the private sector, is an example of a reassessment of vertical integration.



Literature Review

The effect of public service on the interrelation of the government-business: a theoretical approach.

Studies on the relationship between business structures and government, as well as the rapid changes taking place in political life, show that political leaders (especially heads of state) are faced with the fact that large political groups whose interests and actions at certain levels were predictable, at the moment divided into small temporary groups, formed in a very short period of time, able to rally around a common problem and capable of fast moving but to unite, disintegrate and re-unite in a certain alliance. And this, in turn, led to the relevance of a new theoretical approach to unstable systems. But “the activity of state administration is by its nature aimed at resolving conflicts and contradictions arising between general and special interests”, [2, p.50]. The problem of compliance and representation of interests began to receive more attention at the beginning of the 20th century. A. Bentley and D. Truman proposed to look at politics (the political approach of the government) as an arena of rivalry between the interests of various groups. L. Janda, D. Louri, A. Potter, J. Wilson, K. Wall and others investigated the influence of interests of various groups on political processes in countries such as the United States, Great Britain, France, Italy, and also examined in their research questions regulating the legislation of the activities of the lobby. L. Mises, F. von Hayek and J. Schumpeter, who study the role of interest groups in shaping economic policy and features of bureaucratic management, pay attention to the danger of uncontrolled public administration. There are also voiced thoughts about the creation of inefficient institutions by the state, changing market rules with particular interest groups in their own favor and obtaining political rent. In the 50's and 60's of the last century, D. Black, C. Arrow, E. Downs, J. Buchanan, G. Tallock, M. Olson, D. Muller, R. Muller, U. Niskanen, criticized the Keynesians, questioned the state's intervention in the economy. Proponents of the theory of public choice, drawing an analogy between the state and the commodity market, study the state as a market of a particular form. But the political mechanism they regard as a clash of interests of various groups and a means of finding a compromise [Hardin, R. 1991, Hardin, R. 1995]. Proponents of the theory of public choice, widely using in their research the principles of classical liberalism and marginal methods of analysis, began to study the influence of government decision-making processes from the fields of sociology and the right to economics. So, in 1951 and in 1963, C. Herrow in his book “Collective Choice and Individual Values”, and in 1962, J. Buchanan (James McGill Buchanan) and G. Tallock in their monograph “Calculation of consent . The logical foundations of constitutional democracy ” conducted a similar analysis between the state and the market. And the relationship between citizens and the state were considered from the point of view of the “service for service” approach (quid pro quo). Research in this direction continues, and in 1985, J. Buchanan's The Foundations of the Rules, written jointly with J. Brennan, compares the political rules and the rules of the market order. But nowadays, the concept of public choice widely used in research is in some cases interpreted as state, public, social, and finally public control [Nureev R.M. 2005]. Although, speaking of public choice, meaning the choice made by the society, i.e. the choice of voters (citizens). The activity of the state apparatus is the object of constant public interest and is under its control, while the bureaucracy acts as an agent producing public services. Therefore, problems on the similarity of political rent and its features become subjects of discussions [5].

Methodology of Research

We used methods of comparative analysis, logical generalization and synthesis.

Models of interrelation government-business

The study of studies of a number of scientists allowed us to identify the following models of interaction and mutual influence of government and business:

1. Partnership based models:

- Corporate model - in it business has a small number of alliances and there is a right of a monopoly on representation, and participants of alliances are formed at the expense of government incentives. [Shokhin A.N., Korolev E.A..2008]



- Pluaristic model - stands out for a large number of alliances in business, free competition between them and the lack of state control. [Shokhin A.N., Korolev E.A.,2008]
- Functional (political) model - a model in which the government and business are mutually removed from the right to control each other, and each freely performs his duties. [Turovsky R.F.,2009] The trading model (auction, negotiated agreement) also applies to this type, and here neither the state nor the business can dictate their own rules of the game to each other. [Ivchenko S.A., Liborakina M.I., Sivaeva T.S.,2003]
- Model of cooperation (political partnership) - the government establishes partnerships with business structures. [Turovsky R.F.,2009] In the model of cooperation, political and economic leaders conduct a dialogue with the goal of helping each other. [Lapina N., Chirikova A.,1999] As several types of cooperation models, also offered the models “Buy-build-manage”, “Build-own-manage”, “Build-own-manage-transfer”, “Build-manage-transfer”, “Compose-build-finance-transfer” and “Project-build”. [16] Also, as another type of cooperation model, you can specify the model of “social cooperation”. In this model, it is proposed that government representatives assume the role of coordinators of social investments in business. [Ivchenko S.A., Liborakina M.I., Sivaeva T.S.,2003]
- The model of state custody (state patronage) is a model that seeks to control the business elite [Turovsky R.F.,2009]. At the same time, the model of state patronage implies the use by the government of administrative-indicative relations to representatives of the market [Lapina N., Chirikova A.,1999]. At the regional level, this relationship can be built on the basis of corporate and statist models. In the corporate model, the regional government depends on business structures, and, often, this is observed in underdeveloped regions that need subsidies. In the statist model, the regional government achieves superiority in relations with business structures by setting the rules of the game for them.

2. Conflict Based Models:

- A conflict model is a model in which there is no stable relationship between the government and the business elite [Turovsky R.F.,2009].
- The pressure model is a model formed as a result of the weakness of the government elite, and, as a result, their inability to put forward an authoritative leader, draw up a program of necessary development and form a consolidated team of like-minded people [Lapina N., Chirikova A.,1999]. Another form is the voluntary-compulsory charitable model, in which enterprises must participate in the implementation of “social” programs, while the dictatorship of the government impedes the growth of corporate programs efficiency [Ivchenko S.A., Liborakina M.I., Sivaeva T.S.2003].

3. Mixed type models:

- Symbiotic (mixed) model - is a combination of business and government, which, in turn, may be accompanied by the dominance of one of them, the superiority of one over the other [Turovsky R.F.,2009].
- In the model of “privatization of power”, the business structure (one or several groups) takes control over the government [Lapina N., Chirikova A.,1999]. It can also be noted that the City-Combine model is similar to this model, in which the dictatorship of business over the government is observed, but this dictatorship is not profitable for the business itself [Ivchenko S.A., Liborakina M.I., Sivaeva T.S.,2003].

4. As models depending on the state of the market, you can specify theoretically ideal (ie, ideal market conditions), national (certain national economic model), normative (functioning on the basis of specific official norms), real institutional (functioning in a certain territory) models [Shapoval V.M.,2008]. And based on the experience of various countries, one can even see that the models are represented in the form of multi-colored zones, the color of which is associated with the color of socio-economic conditions. Thus, the “White zone” implies the creation for all entrepreneurs of the same, identical rules of the game and the achievement by the state of their forced compliance with these rules; “Black zone” reflects informal, criminal and, in particular,



corruption experience; and, finally, the “Gray zone” is the experience of entrepreneurs in informal negotiations with the government to ensure their functioning [Yasin E.,2002].

Findings

Impact of the state service on the interrelation of the government-business: Azerbaijan experience

In the past 20 years, there has been a qualitative change in the country's role in economic life. Recently, has been noticed a qualitative change in the goals and potential of Azerbaijan, which is trying to form a market economy. The country has sufficient reserve potential to achieve sustainable economic growth. In Azerbaijan, as a result of successive reforms carried out under the leadership of President Heydar Aliyev since 1993, have been achieved serious advances in the economy. In our country, which restored its independence, by decree of the President of the Azerbaijan Republic dated December 29, 1998, was laid the beginning of reforms in the public administration system and were carried out a number of successful reforms in the field of public service.

The presence of a strategic nature of the public service system requires compliance with the number and functions of public authorities, and the number of civil servants with modern conditions and requirements. In the period of optimization, it becomes necessary to eliminate repetitions in duties and functions, to strengthen the material and technical bases, to move to progressive management methods, to improve control mechanisms. Studies conducted in this direction show that “from 1998 to 2013, the President issued more than 31 decrees and more than 20 orders to improve the management system in the country and to carry out structural changes in the central authorities. In 2001 alone, 21 ministries and departments were abolished, and 7 ministries and departments were recreated anew. By 2013, were already operational 18 ministries; 13 state committees; 5 state-owned firms performing direct control functions; 2 concerns; 12 joint-stock companies; 3 associations; 7 agencies; 3 funds; 2 state commissions; 3 chambers; 7 highest courts. As of February 1, 2003, out of 3,781.1 thousand of the able-bodied population (46.8% of the total population), 21,000 people worked in the public service, of which 1,688 were in the judicial authorities.” [Ismayilov S., 2013, p.56-57]. If you look at the statistics, you can see that in 2017, this figure reached 29,302 people (see: table 1).

Although at first glance this figure seems high, but when compared with other countries, it is noticeable that this figure is small and that civil servants make up only 0.3% of Azerbaijan's working-age population. For comparison, we can say that in Sweden the number of civil servants is 9.9%, in Austria - 5.9%, in France - 5% and in Germany - 3%. It should be noted that in the state structures of Azerbaijan, among the civil service positions, prevail those that require possession of knowledge in the economic field (more than 70%).

Table 1. The number of people holding senior positions in the civil service in 2013-2017

	2013	2014	2015	2016	2017
Altogether, according to the country	29710	30108	30123	30090	29302
Leading administrative positions	9057	9284	9271	9258	9178
Including:					
Administrative positions from the highest to the 3rd category	1107	1147	1173	1214	1313
Administrative positions from 4 to 7 categories	7950	8137	8098	8044	7865

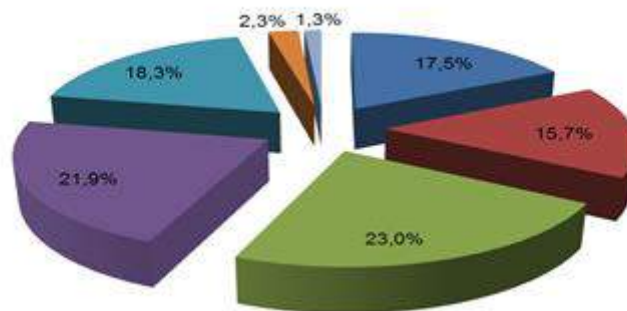
Source: <https://www.stat.gov.az/source/labour/>

We also note that in comparison with 2013, when employees of managerial positions made up 30.5% of all civil servants, in 2014-2017, although the number of civil servants decreased, the number of people occupying leadership positions increased by 0.3%. This happened due to an increase in people occupying categories from the highest to the 3rd.



Specialists who have been educated as part of the “State Program for the years 2007-2015 for teaching Azerbaijani youth in foreign countries” are accepted into the public service out of competition. Encouraging the involvement of young people in the civil service is also reflected in other regulations. One of these incentives is to create opportunities for university graduates who lack experience in participating in contests. In 2007-2014, the number of young people among applicants was more than 80%. At the moment, most civil servants are representatives of the middle age category.

Chart 1. Separation of public service employees by age categories on January 1, 2018



(17.5% - up to 30 years; 15.7% - 30-34 years; 23.0% - 35-44 years; 21.9% - 45-54 years; 18.3% - 55-62 years; 2.3% - 63-64 years; 1.3% - 65 years old and above)

Source: <https://www.stat.gov.az/source/labour/>

In the course of the sociological survey, it became possible to find out the attitude of the civil service employees to their activities, to assess their level of job satisfaction and to find out their proposals in the direction of improving the civil service. The number of respondents who participated in the survey was 393 people. 69.5% of survey participants indicated the answer “To serve the state, society and citizens” as the reason for their work in the public service. In the second and third place were the replies “Reputation of the civil service” (35.7%) and “Interesting work” (33.2%). In a survey that determines the level of satisfaction of civil servants with their work, 80.2% of respondents indicated that they were satisfied with their position, while 90% indicated that they were satisfied with the opportunity to work in public service and serve the public. 67.7% of respondents believe that there is a link between the work they have chosen and their knowledge and professionalism. But there were a number of aspects that the polled government officials were not satisfied with, among them - wages (at least two thirds of the respondents answered), working conditions (9.5%), and the unsatisfactory level of career growth and development prospects (10.1%). Thus, along with the successes achieved, there are a number of shortcomings in such areas as: the system of legislation of public services, the methodology for managing the system of public service, raising the skills of civil servants, stimulating and developing their professional activities.

Discussion

Relationships between political leaders, government officials and entrepreneurs: solving management problems.

In all democracies (France, England, Germany and others), the daily work of the government, documents for signature, including the design of the decisions taken, are not engaged in democratically elected officials, but bureaucrats. Political leaders (people holding political positions) often respond with displeasure about bureaucrats (people holding leading and executing positions in the public service) and point out that they face many obstacles and difficulties in translating desired goals into reality [Toffler A., 2003, p.4]. Both in the USA



and France, and in Great Britain, when appointing a minister to a position, he brings with him his advisers (on political issues in the area entrusted to him) and forms his cabinet, and when he leaves his position, they resign trail behind him. Both in France and in Great Britain the aim is to form a comprehensive professional manager, i.e. wide-profile administrative worker. And in the US model, attention is paid to the role of a specialist. In the UK, 60% of the state administration staff are specialists, and only in 1963-1980s the number of economists increased from 19 to 400. Only among civil servants is there still a division into 25% of specialists and 75% of generalists (people working in public service regardless of their specialization) [Vasilenko I.A. ,2001, p.128-168].

The consistent and systematic policy of the President of the Republic of Azerbaijan Ilham Aliyev to improve the business environment and create a local stratum of entrepreneurs ensures the long and harmonious development of the country. In this direction a number of comprehensive measures are being carried out, such as: development of the relationship between the state and entrepreneurship; improvement of the system of state regulation, legislation on the business environment and administrative procedures; regional development; the formation of state support mechanisms for entrepreneurship; education; development of business relations and the provision of various types of services. As a result of the adoption of the Law of the Republic of Azerbaijan “On the Suspension of Supervision over Business” dated November 1, 2015, it was possible to achieve the elimination of gaps in the legislation.

The range of measures listed below, indicated in the Action Plan of the Strategic Path Map in the perspective of the National Economy of the Azerbaijan Republic, is widely commented: “7.2.4. Priority 2.4. Taking measures to develop a partnership between the state and the private sector in order to implement complex projects, “Measure 2.4.1: Identify a mechanism to support the development of partnership between the state and the private sector,” “7.1.3. Priority 1.3. Strengthening the partnership between the state and the private sector” and “Measure 1.3.1: Improving the regulatory framework for public-private partnership”. The statement in the part “Measure 1.3.1: Improving the regulatory framework for public-private partnerships” states that “the regulatory framework, first of all, should consist of: a formal public-private partnership agreement; approving the list of areas suitable in the Azerbaijan Republic for this partnership and a number of other relevant forms; adoption of other regulatory documents ”indicates that there is still a lot of work in this area. But the main task is connected with the elaboration and preparation of the concept of this sphere [1]. Despite the fact that the Law of the Republic of Azerbaijan No. 177-VQ of March 15, 2016, “On the Implementation of Investment Projects Related to Construction and Infrastructure Objects Based on Special Financing”, taken as the legal basis for relations between the state and the private sector, moments of using the “Build-manage-pass” model, the concept of the relationship itself is not yet ready.

Conclusions and Recommendations

In our opinion, aimed at the common interests, goals and fulfillment of duties beneficial for the country and society, the models of partnership between business and the state, as well as social partnership, are of great interest. Another model is a model of unilateral cooperation, which is implemented in two forms. In the first form, the influence of government structures on business structures prevails, and government agencies, acting on entrepreneurs, try to involve them in solving a number of socio-economic tasks. But the application of this model in fact faces a number of difficulties. As an example of such a problem, one can cite the participation of not all business structures in socio-economic processes. As a rule, only a small number of business structures are connected to these processes, and for the rest, the solution of the moral and social problems of society is not important. As a second form, you can specify a model in which business structures are interested in building relationships with government agencies. In this case, despite this aspiration of business structures, government structures may not take their interests and demands into account when solving political issues. But the dominance of any of the parties in the partnership of the state and the private sector, as a result, leads to the fact



that civil society accuses government structures of incompetence and inability to create the necessary quality team and offer an effective development program. And this, in turn, leads to increased discontent in society. Therefore, it is considered more advantageous to use the model of mutual cooperation, which satisfies the interests of both parties.

References

- Strategic Path Map for the National Economy Perspective of the Republic of Azerbaijan, approved by Decree No.1138 of the President of the Republic of Azerbaijan dated December 6, 2016. <http://www.e-qanun.az>
- Theory of Public Administration, Textbook, Baku, "Science and Education", 2010, p.50
- Ismayilov S., Past, present and prospects of civil service and management system in Azerbaijan. Baku 2013, p.56-57(in Azerbaijan)
- Ivchenko S.A., Liborakina M.I., Sivaeva T.S. City and business: the formation of social responsibility of Russian companies. M., 2003. p. 76 (in Russian)
- Institutional aspects of interaction of government, society and business in the post-Soviet space (Post-Soviet institutionalism 2012) Collective monograph) http://www.inst_annual2012.pdf(in Russian)
- Lapina N., Chirikova A., Regional elites in the Russian Federation: behavior patterns and political orientations. M., 1999(in Russian)
- Nureev R.M. (2005). Theory of public choice. M.: SU-HSE. pp. 31–32, 165–166, 209–210. (in Russian)
- Turovsky R.F. Regional models of interaction between business and government elites: modern processes and their socio-political consequences.2009,URL: <http://politcom.ru/8474.html>
- Shapoval V.M. Interrelationship between state and business on the basis of development of social responsibility // State and Regions. Series: Economics and business. 2008. №5. p. 196-201. (in Russian)
- Shokhin A.N., Korolev E.A. The interaction of business and government in the European Union.M., 2008
- Toffler, A. (2003). The Metamorphosis of Power, Knowledge, Wealth and Force on the Verge of the 21st Century. Moscow, (in Russian).USR: http://yanko.lib.ru/books/cultur/toffler-power_shift-ru-l.pdf
- Yasin E. The burden of the state and economic policy // Questions of economy. 2002 №11. p. 7 (in Russian)
- Vasilenko I.A. ,2001, p.128-168 Administrative and state management in Western countries: USA, UK, France, Germany. Tutorial. 2nd Edition, Revision and Supplement - Logos Publishing Corporation,2001, 200 pp.
- Hardin, R. (1991) Collective Action. The Johns Hopkins University Press.
- Hardin, R. (1995) One for All. The Logic ofGroup Conflict. Princeton University Press.
- United Nations Economic Commission for Europe . Guidebook on Promoting Good Governance in Public-Private Partnerships United Nations Economic Commission for Europe . Guidebook on Promoting Good Governance in Public-Private Partnerships
- <http://www.stat.gov.az/source/labour/>



Factors that Require the Necessity of Lifelong Learning

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Abstract

The article emphasizes the importance of education in shaping the labor market and providing employment. Given all these factors, it has been shown that lifelong learning is the process of developing human habits throughout life. It does not only help the development of personality, active citizenship, and social integration but also enhances competitiveness and employment opportunities. The article outlines the critical aspects of the vocational education and lifelong learning strategy based on the "Aims and Objectives of Lifelong Education" document adopted from G-8 Summit occurred on the 20th of June 1999. It also refers to the various studies carried out by UNESCO and other international organizations, as well as taking into account the learnings from the foreign countries on the subject. Based on these, recommendations and suggestions were made for the development of lifelong education process in Azerbaijan.

Keywords: Lifelong education, continuing education, educational strategy, sustainable development, innovative development

Introduction

Today's modern requirements for a person engaged in labor activities in society are high proficiency, competitiveness, and creativity. A crucial role belongs to education in the professional and personal development of people. Education is the sphere of special life-activity of society that serves to meet social needs. Interaction between education and other aspects of life creates a demand to improve the system of vocational training. And the emergence of new and different approaches in modern times has dramatically changed education's role in the life of society [2].

Transition to the knowledge-based economy, the emergence of new, high technologies, the rapid increase of technological changes and globalization necessitate the ever-increasing habit and competitiveness of people. Today, society's perceptions change, the scope of scientific knowledge is constantly expanding, and new visions



are emerging in the learning process, its goals, objectives, and capabilities. Life brings new demands: the ability to react quickly to all changes, to develop initiatives, and communication habits. In a rapidly changing world, even very good education may not be enough. Education has changed goals related to the ability of people to adapt to changing living conditions. The phrase "education for the whole life" has replaced the phrase "education for life" [3]. This has led to the emergence of a new concept of education - lifelong or continuous education.

According to some estimates, the average annual growth rate of new knowledge is 4-6%. This means that up to 50% of professional knowledge should be taken after graduating from a specialist education institution. The time required to update the professional knowledge of highly educated professionals is 28% of the person's working life. For this reason, continuous education is an important factor in the competitiveness of the specialist in the labor market.

Lifelong education is a concept that is evolving from the need for a broader application of innovative technologies in the modern era of science and technology. The concept of lifelong or continuous education is a system of modern alternative approaches to the development of educational practice and declares the educational process at any stage of human life as an integral part of its lifestyle.

The term of lifelong or continuous education is not new. The idea of lifelong learning is found in the views of Plato, Confucius, Socrates, Aristotle, L. T., IV Goten, J. Reus, who linked this to the achievement of full human development as a personality. There have been attempts to ensure the continuity of education in the "crafts schools" created and maintained by crafts shops in the XIII-XIV centuries in European cities. The creator of modern ideas about lifelong education was the Czech pedagogue-humanist Jan Amos Komenski (1592-1670). His three-volume "Life Science" on life-long education reflected in the concept of modern lifelong learning. In the modern era, the term "lifelong or continuous education" is first found in the UNCEC materials in 1968. In 1972, UNESCO's continuing education has been recognized as a fundamental principle of innovation and reform in education in all countries around the world [9].

The concept of lifelong or continuous education is multidimensional.

First, lifelong learning envisages continuous, unobtrusive improvement of knowledge, skills, and habits related to the need for a person to be current in a modern professional and social environment.

Secondly, this term generally refers to the system of views on the learning process. This system is regarded as an integral part of human life at the age of educational activity.

Thirdly, lifelong learning envisages the continuous advancement of the creative potential of the individual.

In short, lifelong learning is the process of developing human habits and lifelong learning. It does not only help to develop personality, to form active citizenship, to integrate social integration, but also to increase competitiveness and employment opportunities. The purpose of lifelong learning is not to teach a person lifelong but to ensure that he/she can learn lifelong learning independently. The main objective of lifelong learning is to create conditions for the full development of any person, regardless of age, place of residence, or personal abilities, motives and interests.

Life-long education, considered as one of the main phenomena of modern civilization, has become a major factor since people began to feel the need to pass on to the stage of history as a "social being" and to pass their first experience. When looking at the history of civilizations, which played an exceptional role in the rise of human civilization, it is possible to identify the success of the lifelong education system and science through which they were all represented [10].

In the mid-1960s, many scholars have concluded that most of the acute problems facing humanity are not capable of solving science problems. Here, talking about the crisis of education, traditional education methods



created this crisis. In 1968, a prominent American scientist, Kumb's, for the first time, highlighted the problem of unresolved issues in education, pointing to a wave of problems encountered in different countries in countries with different levels of development. In spite of all these approaches, human development is a very serious reality that education is possible. Education is the ultimate means of reaching human beings in society, in the environment and the social sphere, in achieving ideals of freedom and social justice. In the past century, the world has been a scene of science and technology innovation in every area from economics to politics, from education to art. This trend has a special tune in the new era we are experiencing and enriches with new quality trends. According to a report by the National School Board, the knowledge base of the world is divided into two to three years; 7000 scientific and technical articles are published every day; graduates of secondary schools in industrial societies face a flood of information more than the information they receive throughout their lifetime; it is predicted that innovations that will take place over the next 30 years will exceed the previous 300 years. Hence, the new industrialization that has emerged through globalization, the rapidly shifting education requires the development of new human resources in the global context. High competition conditions condition the lifelong learning of human resources. Financial conditions for getting education under new conditions are very high. Thus, web-based learning opportunities are a systematic response to a new circle of distance education. Because such education is very important in terms of low financial, educational environment, time and space. As we can see from this, two major revolutions, which mark the century we live in, also change our living conditions, and hence, the goals of our education. One of them is digital and the other is genetic revolutions. Digital revolutions increase our dependency on information technology and at the same time opens wide horizons for the future in all aspects of our lives. And genetic revolutions are the main cause of demographic changes. All of these changes give rise to the foundations of new paradigms in education, as well as new conditions. What kind of paradigms, trends should be shaped? These can be grouped in the following way: to follow the requirements of the international labor market with global trends in the modern world; alternative thinking, lifelong learning, acquisition of online education habits; transparency, accountability, equity and flexibility in education.

We think that education should have the ability to support innovative, creative initiatives in society through the use of these trends in our contemporary life and to make a difference in using the knowledge. For this purpose, researchers have calculated that in the new century, it is not enough to develop only the left hemisphere of the brain. As we know, the human brain consists of two hemispheres. For the twentieth century, education has been focused on developing the brain, which we measure with the left brain, the IG. Analyzing, rational thinking, and logical thinking are more involved in the left brain.

But in the 21st century, the brain's right hemisphere is extremely important. Research has shown that the right brain is the brain that makes the brainpower, spontaneity, synthesis, creative initiatives more functional, and the brain uses the left brain more than its potential. The use of both brain hemispheres and synchronizing this activity is one of the most important goals facing modern education. Thus, the society of a new creative or metaphorical skill is considered to be the primary goal of education. We would like to point out once again that the focus should be on self-management and the acquisition of new skills. Meta skills in education are understood as learning skills, self-control, and social communication habits. To understand the basic mission of education in the age of educators living in this approach, the following models and orientations are discussed below: proactive approach in education; problem-based learning; learning model, self-service education services; postmodern thinking; brain-based learning and other approaches.

Education professionals have already offered a wide range of applications for the clarity form of fashion in education. So, it is necessary to formulate the new paradigm and to shape the roles of learners following this mission. As Einstein noted, "success is not in the instruments we use, but in approaches". The most important of these approaches in education is information technology.



It has been observed in recent years that the rapid changes in the world have taken place and that the innovations that have taken place are reflected in the social, political and economic spheres. Lifelong learning is one of the most effective means of development, which consists of efforts to reach a desired level of life. Realization of the efforts for development is also the main way to develop the necessary skills and a sufficient number of workforce. At the same time, education is the most important social service that enhances the well-being and the benefits of the community, promoting social justice and opportunity for equality, which enables individuals to grow up to their capabilities [7].

The Cedefop Lung identifies various forms of education as follows:

- Formal education is an organizational and structured textual education that is carried out either individually or in the context of the educational institution. The results of formal education are officially recognized and completed by granting diplomas or certificates.
- Non-formal education is part of planned activity and, although not identified as education, involves learning elements, such as knowledge and habits acquired at work.
- Informal education is a result of daily life associated with family, work or leisure. This form is sometimes referred to as experimental education and understood as casual education. [8].

Lifelong education carries out several functions:

- Diagnostic function (determination of the initial level of preparation in this or another field of knowledge);
- Compensation function (elimination of gaps in basic education);
- Adaptive function (operational preparation and retraining in changing production and social conditions);
- Development function (personality's moral, creative needs increase);
- Culturology function.

Several principles of lifelong learning have also been identified in international practices. These principles are as follows:

- The principle of humanism; this principle envisages the freedom of choice of education for identity, education forms, types and periods, as well as the choice of self-education and qualifications. Human beings are taken as the purpose of social evolution.
- The principle of democratization - the diversity of teaching forms envisages access to education at all ages, in accordance with interests, opportunities and needs. This principle ensures equality in education and development, irrespective of the religious affiliation, national identity, health status of all citizens.
- Principle of freedom of choice of basic education parameters: time, place, duration, value, shape and type, organization, method, sources, and means. This principle is aimed at the use of various production methods and technologies.
- The principle of mobility is expressed by the fact that the lifelong education system can change rapidly by the diversity of methods, tools, organizational forms, their agility and changing demands of production, society, and identity.
- The principle of individualization, taking into account the intellectual, emotional, personality's physical characteristics, differences in mental development level, access to group and collective forms of education and labor activity, and access to an interpersonal relationship system.

This principle is aimed at creating the necessary conditions for everyone to demonstrate their ability as fully as possible and provides the freedom to choose the individual path of development, taking into account the interests, habits, desires, motives, and values of each individual.

- The principle of stagnation involves a gradual transition to higher levels of education, which in turn promotes the continuous quality of education activities.



- The principle of systemism; is a close interrelationship between all components of the lifelong learning system and one change is necessarily the change of the other and sometimes the whole system. As a result of this interaction, the environment has always been of a certain quality.

In the document titled "Aims and Objectives of Lifelong Education" adopted at the Eighth Summit of the United Nations on June 20, 1999, the critical elements of professional training and lifelong learning strategies are as follows:

- High quality of primary education;
- Elementary education gives children the ability to read, write, share their skills, use information and communication technologies, and develop basic habits in life and society;
- Secondary education, which takes into account the needs of the labor market, not only for pupils who are preparing for higher education or professional career but develops the necessary skills and abilities of all pupils;
- Professional education, which meets the needs of the labor market and meets the requirements of the most modern technologies, obtaining higher professional qualifications in various fields;
- Higher education opens opportunities for everyone who can benefit from a job as a certified specialist;
- Professional training of older people, who receive adequate support from the state or employer, who fulfills the needs of the family and creates realistic opportunities for professional retraining for a lifetime.

This process should involve people in the inculcation of skills required for their self-development and the functioning of high-quality education systems, provided they are not separated from production. Today, the need for lifelong learning is no longer a matter of debate. The main discussions are about the forms of education, rules of the organization, specific features. One thing is undeniable: everyone should participate in this process and continue their education throughout the whole lifetime. [4]

Lifelong education benefits individuals, both societally and economically.

- Lifelong education gives people the knowledge, habits, values, and attitudes that they need as vitality, citizenship, and workmanship;
- The lifelong learning community is more productive and innovative, as people create innovations, open new abilities, and ideas;
- Lifelong learning economy strengthens. The more knowledge, skills and abilities people develop, the higher the level of abilities in the economy [1].

Maskl D. points out five major advantages of lifelong learning as follows:

- First of all, lifelong learning is a higher wage perspective. As a rule, smart people who follow the latest information and technology are rewarded. For this reason, learning at work and increasing the qualifications are in line with a healthy idea.
- Secondly, achieving these new horizons is great self-esteem, making complex decisions, reaching a completely new level.
- Third, this is freedom offered by older students. Older students share ideas and teach each other.
- Fourth, a transition from school education to 7/24 model and online methodology. Replacing a classroom with a computer allows you to study at the jacket by staying at home. You can never get a diploma without going to the university campus. Everyone who wants to continue their education by eliminating time and space constraints can do it.
- Fifthly, scholarships are commonplace. Education is the second nature of man. People who are involved in lifelong learning are more likely to survive and healthier [5].

N.M. Nordstrom lists ten advantages of lifelong learning. The advantages are:

- Lifelong education helps us to find new friends and build valuable relationships. Through lifelong learning,



older people meet new people, create friendships, and actively engage in social life;

- Lifelong learning enriches life-enhancing self-esteem. Nordstrom concludes that thanks to academic education, education-related adventurous travel, and our renewed volunteerism, we expand our perception, apply self-esteem, and create a genuine attractive shoemaking life.

- Lifelong education helps us to actively participate in society's life. We participate in curricula, travel around the world, and offer our expertise to the community. We do not have a burden for society, it is incredibly active.

- The lifelong helps us find meaning in life. Nordstrom says, "Sometimes it is difficult for us to look back on our lives, but it gives us a real perspective and allows us to find the true meaning of life in the hills and valleys of our past."

- Lifelong education helps us adapt to changes. There are constant changes in society. Lifelong education enables us to keep up with changes in society, especially with technological change. Together with our colleagues, the teaching environment allows us to keep track of the changes and make the environment even more interesting.

- Lifelong education makes the world better. Through the social aspect, lifelong allows young people to benefit the community. Nordstrom says, "We have spent 30, 40, and more years on our interaction with the world, and what we have learned in this process can turn into a real asset to make society better. The wisdom we have gained benefits from the world around us. "

- Lifelong learning enhances our wisdom. Lifelong education allows us to look into the future. It gives us a better understanding of past successes and failures.

- Lifelong learning creates a sense of hunger. Older learners want to learn more about the history, current events, politics and culture of other countries. Our enthusiasm and attempts to make us call new ones to feed our hunger mind.

- Lifelong education opens the mind of man. Free exchange of ideas and views among older learners is an integral part of lifelong learning. Participation in stimulating discussions helps to see problems on the other side. This compromise opens our thinking and raises us to a completely new level of clarification.

- Lifelong learning helps to develop natural abilities. All of us have natural abnormalities. When we do not work all day long, these capabilities can be further developed [6].

Results

The concept of lifelong learning envisages a more flexible education system. The rapidly changing world requires people to respond to these changes promptly. In the modern world, people who can keep their knowledge and skills at the perfect level, who perceive innovations and adapt to these innovations can succeed in life and work. That is why almost all countries of the world today adapt the national education systems to the requirements of the modern world and take measures to provide lifelong learning.

References

- CanLearn (2009, Oct 15, Last modified). *Continuing Education - Lifelong Learning, Benefits of Continuing Education*. Canada, Retrieved 2011.
- Chitaeva Yu.A. (2012). Continuing education as one of the conditions for the development of modern education: past, present, future prospects / Yu.A. Chitayeva // Scientific research in education. № 7.
- Dneprov, E.D. (2011). The newest political history of Russian education: experience and lessons / E.D. Dnieper.- Moscow: Marios, - 455 p.
- Eggelmeyer, S. (2010, November 11). *What are the benefits of lifelong learning? Expert Answer*. Retrieved 2011.
- Masclé, D. (2007, Mar. 27). *No Adult Left Behind: 5 Big Benefits of Lifelong Learning*. Article Alley, UK. Retrieved 2011.
- Nordstrom, N. M. & Merz, J. F. (2006,). *Learning later, living greater; the secret for making the most of your after-50 years*. Colorado; USA, Sentient Boulder CO Publishing.



- Quliyev R.R, İbişov E.I., Mikayılov F.Q. (2019, January-March). *Assessment of quality of higher education based on “Word-of-mouth marketing” research methodologies*. UNEC Scientific Reports, p.17
- Tissot, P. (2004). *Terminology of vocational training policy: a multilingual glossary for an enlarged Europe*. Cedefop (Ed).
- Zaitseva, O. V. (2009). Continuous education: basic concepts and definitions / O. V. Zaitseva // Vestnik TGPU- № 7.
- Zotov Y. (2001). View of the teacher. Magazine "Herald of Higher Education", № 4.p.3



Globalization and Its Impacts on the Economic Security of the Republic of Azerbaijan

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Abstract

In the modern stage of the development of world economy, increasing of competition between countries, globalization plays a crucial role in the economic development of countries. At the present, globalization between countries is developing at the new level and takes new forms. The purpose of this article is to analyze the impact of globalization to the development of national economic security of the Republic of Azerbaijan from different scenarios. The research work basically focusing on globalization and simultaneously analyses major trends in the world economy. Currently, the economic security takes a priority standing in the governmental policy of many countries. Economic security is an integral component of the national security. The expansion of the process of globalization and integration between countries requires elaboration of the relevant strategy of the national economic security in order to provide the sustainable economic growth. In the scientific article were identified theoretical approaches to the notions of globalization and economic security. It should be mentioned that in parallel with the creation of new opportunities for the development of countries and its positive sides, globalization has also some negative impacts to the national economic security. In this regard, it is important to analyze these issues in consideration with various aspects. The scientific article was implemented based on the systematic, historical-logical and comparative analysis methods. The limitation of the research work is that there is no enough data. In this regard, more extensive research can be done in the future. As a result of research work was elaborated relevant recommendations.

Keywords: Globalization, economic security, export, import, investments

Introduction

At the present, provision of sustainable development of national economic security takes a leading standing in the governmental strategy of countries. In the era of globalization, expansion of geoeconomic boundaries, increasing of competition and also international labor division, the issue of economic security becomes one of the actual topics. Globalization plays a significant role in the economic life of countries all over the world. Currently, economic security covers all of the most important areas of national economy of developed and developing countries in the world. Globalization impacts on the level of development of major spheres of national economy, which define the sustainability of national economy to threats of world economy.

Historical development of world economy depicts that without effective elaboration of the strategy of economic security it is difficult to provide sustainable development of national economy. In this sense, countries should focus on adaptation of their economic security to the new tendencies of world market. From this point of view, analyzing of relationship between globalization and national economic security is crucial. In this regard, firstly it should be defined clearly the notions of globalization and economic security, which were considered in the works of different economists.



Theory of globalization

Globalization is the process of integration of national economies into the emergent international division of labor (Neelam, 2013). It should be mentioned that globalization leads to the development of economic relations between countries and also expansion of the scale of foreign trade between countries. As a consequence, the level of interdependence between countries is deepening.

The history of globalization goes back to the second half of the twentieth century, the development of transport and communication technology led to situation where national borders appeared to be too limiting for economic activity (Kotilainen and Kaitila, 2002).

The economic liberalization constitutes the initial level of globalization, which covers mostly market and trade liberalization. Globalization is much more related to the open economy. Globalization is related to free movement of goods and services, information and communication technology, development of production process and labour division, multinational companies (Neelam, 2013).

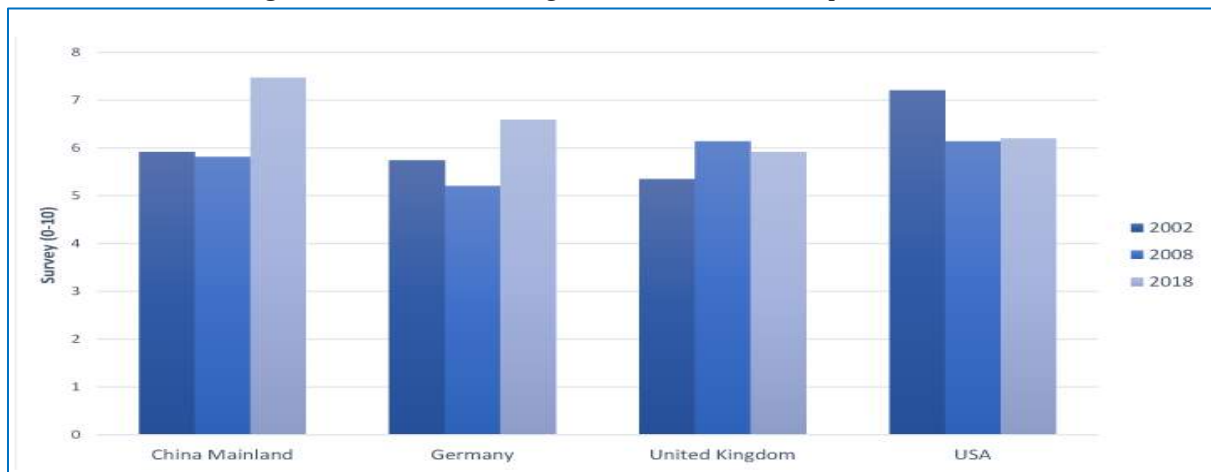
As a result, globalization makes role of state diminish, expands cross border economic interdependence, integrates financial markets, rapid movement of information technology, dominates national policy choice and derives a common culture.

In this sense, consequences of globalization policies in the developing nations are as follows: a) low degree of state intervention; b) higher economic interdependence; c) dominant role of multinational corporations in policy choices; d) derivation of common and universal culture (Neelam, 2011).

Besides that, globalization leads to the increasing of the living standards. It creates new opportunities for the technological development, expansion of labor migration between countries, increasing of capital movement between countries, expansion of the level of scientific development and so on.

In Figure 1 is described the attitude towards globalization of developed countries in different years. As can be seen from the named figure below China and Germany have more positive attitudes on globalization in contrast to the USA and UK in 2018 year. At the same time, the attitude towards globalization in the USA in 2008 and 2018 was roughly the same.

Figure 1. Attitudes towards globalization in the developed countries.

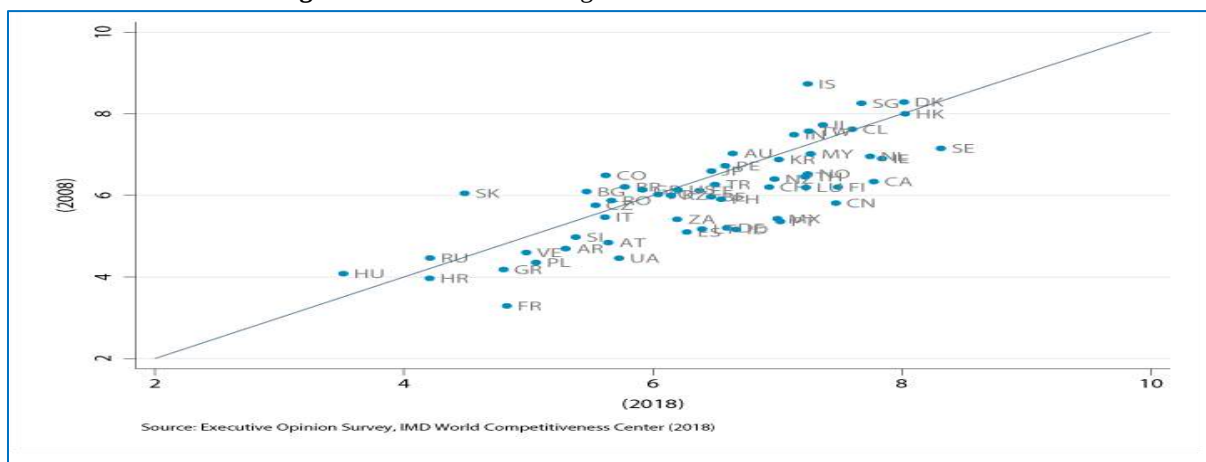




Globalization is reshaping how we have traditionally gone about studying the social world and human culture and a field of globalization studies is now emerging across the disciplines (Appelbaum and Robinson, 2005).

In Figure 2 below is described the changes in the attitudes with regard to the globalization between 2008 and 2018 years. Countries that are located below the line in the graph have a more positive attitude towards globalization in 2018 in contrast to 2008. It should be stated that, overwhelming majority of countries in the world market have positive attitudes towards globalization than 10 years ago. In general, globalization stands out a crucial factor of the development of world economy.

Figure 2. Attitudes towards globalization between 2008-2018.



While there is much disagreement among scholars on the meaning of globalization and on the theoretical tools that are best to understand it, we can identify a number of points with which, it is safe to say, most would agree. First, the pace of social change and transformation worldwide seems to have quickened dramatically in the latter decades of the twentieth century, with implications for many dimensions of social life and human culture. Second, this social change is related to increasing connectivity among peoples and countries worldwide, an objective dimension, together with an increased awareness worldwide of these interconnections, a subjective dimension. As well, most would agree that effects of globalization - of those economic, social, political, cultural and ideological processes to which the term would allegedly refer - are ubiquitous and that different dimensions of globalization (economic, political, cultural, etc.) are interrelated, ergo, that globalization is multidimensional (William, 2007).

During the third wave of globalisation ("hyper-globalisation"), there was approximately three percent growth in the development of world economy. The main factor that contributed to this growth was related to the improvement of labour productivity.

It worth to point out that, increasing of productivity was affected by the development of technological changes, international economic relations and labour divisions. One of the main reason of the development was related to the process of liberalization of national economies, increasing of their role in the international trade (Karl and Heinz, 2017). In the new developing markets roughly the economic growth in a year made up 5 percent. The rate of economic growth in the industrial countries was stable due to the increasing role of emerging markets.

There are the following main principles of responsible globalization under a European lead: a) Globalization should be evaluated from the view of dissminating of technologies, increasing of well-being and peace in the world; b) it expands options of people and national economies; c) achievement of socio-economic goals depends



on the implementation of effective governmental strategy; d) the level of development is enhancing in the open economy countries; e) functions which define the quality of life should be clearly defined and progress in the direction of development of globalization should be monitored on the permanent base; f) elaboration of mutual and effective solutions increases the level of success of the and well-being (Karl and Heinz, 2017).

Weighing the pros and cons of globalization

Financial crises which occur in the world economy makes actual the issue of national economic security. In this respect many countries try to adopt their policy and strategy to the new environment.

Globalization formulates new approach to the notion of economic security and leads to elaboration of new criteria during the assessing of consequences of globalization (Kahler, 2005).

It can be pointed out the following advantages of globalization: a) free trade leads to the reduce trade barriers between national economies; b) it stimulates economic growth, creates new working places; c) in general increasing of the level of competition between national economies is supposed to drive prices down; d) it also provides poor countries, through infusions of foreign capital and technology; e) it creates a worldwide market for companies and consumers who have access to products of different countries; f) labor can move from country to country to market their skills; g) sharing of different technologies with developing nations will help countries in the provision of economic progress; h) development of foreign direct investment and expansion of multinational corporations in the world economy (www.forbes.com).

Among the main disadvantages it can be pointed out the followings: a) in some cases globalization negatively affects the economy of less developed countries; b) there are still many barriers in the trade between countries; c) the biggest problem for developed countries is that jobs are lost and transferred to lower cost countries; d) others (www.forbes.com).

Theory of economic security

In the period of expansion of globalization, development of trade relation between countries it is very important to formulate effective strategy of national economic security. The strategy of economic security should cover major fields of national economy. The notion of economic security was considered in the works of different authors. According to definition of V.A.Bogomolova, economic security can be defined as a such condition of national economy and government institutions, which ensures guaranteed protection of national interests, social policy orientation, sufficient defense potential even under adverse conditions [16].

There are the following directions of achieving the national economic security: a) in accordance with the liberal approach it depends on high level of globalization; b) from a mercantilist view point it based on low level of globalization. According to the Marxist approach economic security can be achieved through radical changes (Bogomolov, Eriashvili, Barikov, Pavlov and Elchaninov, 2009).

In this alternative formulation, economic security clearly encompasses a micro and a macro component. The former, centred on the individual as the referent of security, converges with the notion of human security, with economic security aiming for a secure stream of income for individuals as well as access to a level of consumption that provides for basic human needs. The macro component is directed at securing the integrity or robustness of the market to generate growth and welfare in society. Provision of welfare in the society requires elaboration of effective socio-economic policies, which creates favorable conditions for the development of national economy.



This may be achieved by ensuring that the necessary market institutions exist, including a system of secure property rights and contracts that allow fair access to individuals to exploit economic opportunities. Economic security is also attained through securing distributive equity, which is now recognised as vital to ensuring the proper functioning of the market mechanism, to support human welfare and to ensure the political sustainability of capitalism (Leong, 2000).

Method

This study is focused on the analysing of impacts of globalization on the national economic security of the Republic of Azerbaijan. The research work is implemented based on systematic, historical-logical and comparative analysis methods. In the research work were considered various stages of globalization, analyzed different elements of globalization and national economic security.

In the scientific work was analysed major indicators of economic security and implemented comparative analysis of them. The data was collected based on the information of State Statical Committee of the Republic of Azerbaijan. It should be mentioned that systematic approach helps to analyse the named topic from various scenarios.

Currently, in the condition of market economy, development of international competetion between countries and multional corporations maintaining the stability and balance of national security is becoming an increasingly important issue. If we consider the category of security from the prism of systematic approach, we can conclude that violation of one of the security elements automatically affects the successful development of its other components. In this regard, preservation of relevant balance of development plays an important role.

Findings

The globalization has a great impact on the economic security of the country. In accordance with the Nesadurai's consideration, in the modern period of the development of world economic the national economic security and globalization should be considered together. It should be stated that, studies on the major indicators which characterized national economic security along the historical development of world economy, e.g. GDP, labour productivity and others are still continuing. In general, globalization also can be evaluated from the level of capital flows between countries. However, development of capital flows affects different fields of national economy, e.g. fluctuation of currencies, inflation and others (Nesadurai, 2005).

The economic security of the Republic of Azerbaijan

In the governmental strategy of the Republic of Azerbaijan provision of sustainable development of national economic security takes a leading position. In should be noted that currently the economy of the Republic of Azerbaijan is one of the developing economies in the region. Azerbaijan is the active participant of the process of globalization and international trade.

Over the last years Azerbaijan has implemented various kinds of activities in the direction of improvement and strengthening of its national economic security.

In the period of expansion of globalization the Republic of Azerbaijan pays high attention to the development of its national economic security. One of the important directions in the field of enhancing of national security is the Order of the President of the Republic of Azerbaijan on the "Concept of National Security of Azerbaijan" on May 23, 2007, № 2198. In this concept, the protection of individuals, society and the state from internal and external threats, protection of territorial integrity and independence is considered as crucial directions (Order of the President of the Republic of Azerbaijan, 2007).



One of the priorities of economic security stand out national interests. In the “National Security Concept of the Republic of Azerbaijan” creation of environment for international and national capital in order to develop a market economy, improvement of its legal framework, provision of economic stability.

Besides that, ensuring of further development of Azerbaijani people, living standards of people and their physical health through the rational use of natural resources, consistent economic development, environmental protection, enhancement of educational, scientific and technological capacities are fundamental directions of the country (Order of the President of the Republic of Azerbaijan, 2007).

It should be noted that, Azerbaijan is characterized by the sustainability of socio-economic development. In the modern conditions, Azerbaijan has new opportunities and prospects for ensuring sustainable development of economic security. Currently, diversification of the national economy is one of the fundamental spheres for the development of economic security.

Azerbaijan has big opportunities in the improvement of the development potential of agriculture, logistics, tourism, heavy industry, engineering, information and communication technologies, financial services, construction and so on. The government pays a high attention to the development of the above mentioned spheres and also others fields which have priority for the national economy.

Among the main directions of the Republic of Azerbaijan in the development of its national economic security in the period of globalization can be pointed out the followings: provision of appropriate conditions for the development of socio-economic relations in society, comprehensive protection of national economy, development of export potential of the country and others.

At the same time, reduction of the dependence of national economy on the import, stimulation of the development of major fields of national economy, development of private sector among the major directions can be considered as crucial steps.

National resources play a key role in the economic security of the country. It creates a prerequisite for the development of national economy. In parallel with this, government programs play a significant role and these programs aimed at effective development of national economy and economic security.

Economic security is one of the main categories of national economy. Provision of sustainable development of economic security leads to the effective development of other sectors of economy. In this connection, the issue of economic security requires special attention, which should be considered in conjunction with both internal and external aspects which affects economic security.

The actuality of the problem of national security and economic security became real in particular, in the era of emergence of capitalist relations and national states in the 17th and 18th centuries.

Starting from this date in the countries of European civilization was formulated the idea that main goal of the state is general welfare and security of national economy. In the condition of globalization, the competitiveness of any country will depend on how and to what extent the national economy is able to adequately respond to these processes.

The development of globalization processes requires the elaboration of a dynamic policy of national economic security, which must take into account the criteria and elements of a market economy. The development of



various sectors of national economy depends on the sustainable and complex development of the country's economic security.

When considering economic security, it is important to take into account its components such as production safety, financial security and so on. At the same time, the comprehensive strategy combines the most important segments and elements of national economy.

In fact, achieving the goals of national economic security requires the development of innovative actions of the state in any period of the socio-economic life of society. In this regard, this strategy should cover those areas of national economy, which play a fundamental role in developing of economic security of the country.

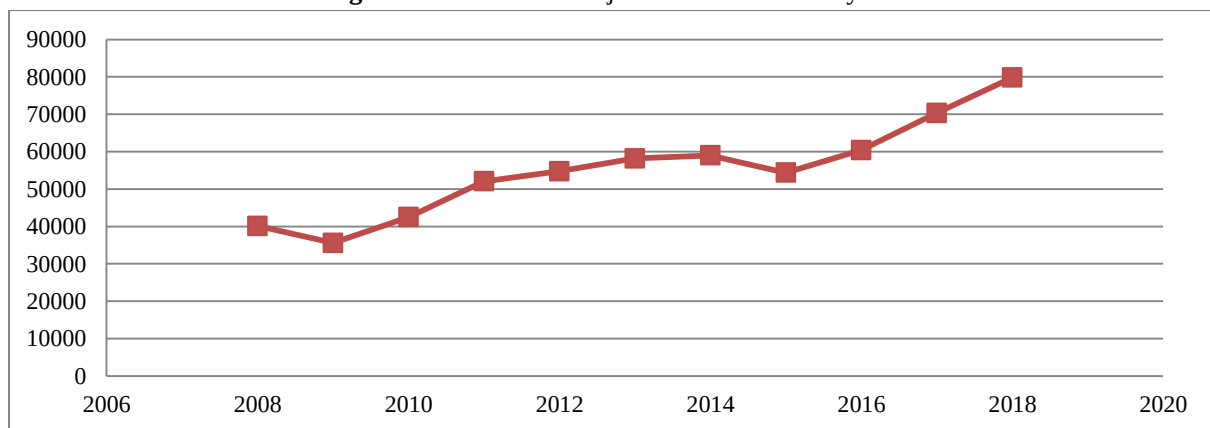
One of methods of determining the level of economic security includes the study of main macroeconomic indicators and their comparison with threshold values. In this method, it is difficult to isolate those indicators, a comparison of which with their threshold values will make it possible to detect the main threats with which it will be possible to give a comprehensive assessment of the state of the country's economy.

One of the important criteria for economic security is the development of GDP. A normal decline in GDP is considered to be 5–15% of its potential value.

However, when this indicator approaches 30% and exceeds this situation, it is characterized as a threshold recession, the prevalence of which is a big threat to the economy as a whole and therefore the state and other economic actors must maintain economic security to avoid such a threat in the economy.

During the evaluation of the national economic security of the country one of the major indicators stands out GDP, GDP per capita and so on. In this regard in Figure 3 below is given GDP of the Republic of Azerbaijan over the last 10 years (State Statistical Committee, 2018).

Figure 3. GDP of Azerbaijan for the 2008-2018 years



As we can see from the graph, in the general there was an upward trend in the GDP. Only in 2009 there was a small decline in the GDP of Azerbaijan. Over the last years the Republic of Azerbaijan pays high significance to the development of non-oil sector. The measures that were undertaken by the government led to the development of GDP and strengthening of national economic security in the period of globalization.

Inflation is also one of the key indicators in the economy. The normal rate of inflation is considered an indicator of 5-6%. However, an excess of 6% already requires certain measures by the state to regulate it. The threshold



level of unemployment is considered as 10%. The predominance of such situation is a threat to the economy and therefore the state must regulate this situation in order to maintain economic security.

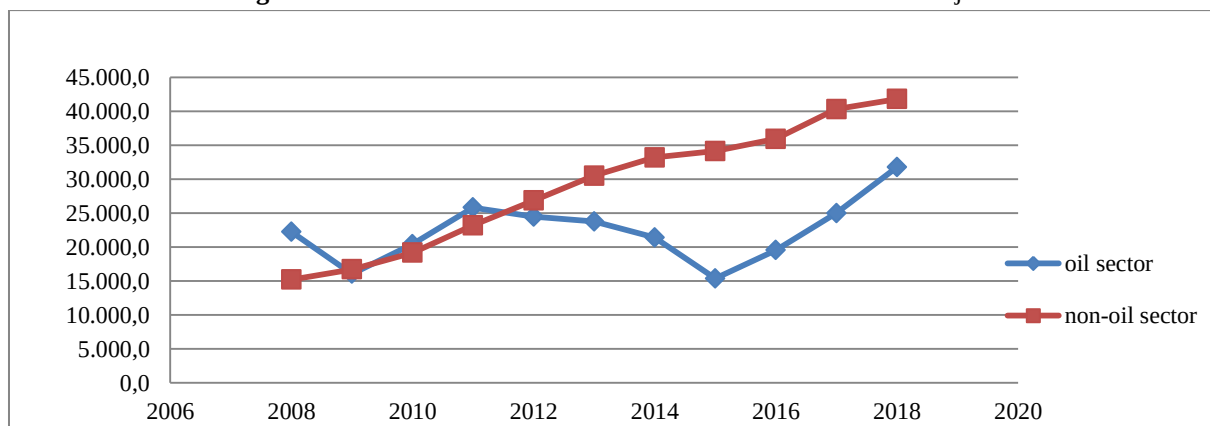
Economic growth of the national economy has a key impact on the economic security of countries. Without corresponding economic growth, it becomes impossible to ensure sustainable economic security. In this issue, each country should take appropriate actions to maintain a positive economic growth in the country. Maintaining sustainable economic growth in the country plays a key role in the ensuring stable development of national economy and its protection from internal and external threats. In this sense the economic security and economic growth of national economy are closely interrelated with each other.

In the modern conditions of expansion of risk of financial crises, one of the most important forms of economic security of a country is its financial security. National economic security also depends on the economic and political factors in a country. State strategy in the field of economic development should be aimed at supporting various areas of national economy. These directions of state strategy, on the one hand, have a positive effect on the public life of the country and on the other hand, they lead to the enhancing of economic security. The formation of a stable political course in the country also has a stimulating effect on economic security of the country. The development of a short-term, medium-term, as well as a long-term action plan plays a significant role.

At the same time, the policy in the field of national economic security should take into account main trends which occur in the world economy.

In Figure 4 is illustrated the share of oil and non-oil sector in the GDP of Azerbaijan starting from 2008 till 2018. As it can be seen from the named graph the share of non-oil sector in the GDP of the Republic of Azerbaijan is increasing ((State Statistical Committee, 2018). In general, there was an upward trend in the development of non-oil sector as a percentage of GDP.

Figure 4. The share of oil and non-oil sector in the GDP of Azerbaijan.



In 2008, the share of oil sector accounted for roughly 15 billions manats. In 2018 it made up approximately 42 billions manats. In addition to this, it should be stated that from 2009 till 2011 oil and non-oil sector were developed in the same direction and level.

The sharp change in the global economic environment since the second half of 2014 has accelerated the process of sustainable development strategy, minimized the resource dependence of economy and expanded the diversification measures.



In the conditions of expansion of the process of globalization and integration between countries it is very important the elaboration of effective strategy of national economic security.

As it was mentioned in the article, in parallel with the positive aspects of globaliation, there is also negative consequences. In this regard, it should be mentioned that comprehensive strategy in the field of economic security leads to the provision of effective development of national economy.

The agricultural sector of Azerbaijan has a great potential. Grain crops play the main role in this sector. Currently, along with the import of wheat from abroad, Azerbaijan is also increasing its production in the country. This product plays a key role in the food security of Azerbaijan and has a strategic value.

The ongoing state strategy in the agricultural sector has a positive impact on strengthening of the national economic security of the country as a whole. The state also pursues a policy of improving the technologies used in agriculture, which in turn reduces the time and labor costs. In addition, various state programs and benefits for employers in this area were adopted in different periods.

The development of high-tech industry, reduction the dependency of country from import, expansion of export of non-oil sector, encouragement the volume of local and foreign investments in various sectors of national economy also plays a major role in the economic security strategy of Azerbaijan.

In the period of globalization, Azerbaijan pays a significant attention to the sustainable development of national economic security. On 1 January 2016, 17 Sustainable Development Goals (SDGs) of 2030 Agenda for Sustainable Development - adopted by world leaders in September 2015 at an historic United Nations Summit.

Special attention in the strategy of national economic security is paid to the development of the investment environment. The development of food security, diversification and promotion of the development of non-oil sector, expansion of opportunities for using alternative energy sources, development of the entrepreneurship, expansion of trade and serviced activities, trade investment is seen as fundamental directions within the framework of the National development concept "Azerbaijan 2020: a look into the future".

One of the significant areas of socio-economic development in the period of globalization, as well as enhancing of economic security is the implementation of Strategic Road Maps, approved by the Decree of the President of the Republic of Azerbaijan on 6th of December 2016.

Results, Conclusions and Recommendations

Summarasing all of the above mentioned, it should be noted that globalization in has a great impact on the economy of countries. In the period of globalization Azerbaijan undertakes crucial activities in the direction of strengthening of its national economic security.

There are the following recommendations on the improvement of the national economic security in the era of globalization:

- improvement of the production potential of the country, use of new technologies in the production process;
- development of foreign economic activity of Azerbaijan with other countries;
- development of non-oil sector of Azerbaijan;
- increasing the quality of life;
- improving and enhancing the development of ICT, high-tech industries and scientific research;
- development of internal and external investments;



- increasing the foreign trade balance of Azerbaijan;
- development of small and medium entrepreneurship;
- enhancing of the development of digital economy;
- improvement and diversifying of export potential of Azerbaijan.

References

- Appelbaum, R., Robinson, W. (2005). Critical Globalization studies. New York: Routledge.
- Boqomolov, V., Eriashvili N., Barikov E., Pavlov E., Elchaninov M. (2009). Economic security: a textbook for university students enrolled in the specialties of economics and management.
- Hough, P. (2008) Understanding Global Security, 2nd ed., Routledge, London.
- Karl, A., Heinz, H. (2017). Europe taking the lead in responsible globalization, No. 2017-42
- Kahler, M. (2005), Economic security in an era of globalization.
- Kotilainen, M., Kaitila, V. (2002). Economic Globalization in Developing Countries, The journal of Economic in Developing Countries.
- Leong, L., (2000) 'Human and Economic Security: Is There a Nexus?' in William T. Tow, Ramesh Thakur and In-Taek Hyun (eds) Asia's Emerging Regional Order: Reconciling Traditional and Human Security, Tokyo, New York and Paris: United Nations University Press, 192-208.
- Neelam, S. (2013). Globalization and its impact on the third world economy, International Journal of Interdisciplinary Studies, Volume 1; Number 1; 15 December 2013, ISSN 2350-8752(P), ISSN 2350-8922 (O), Tribhuvan University.
- Neelam S. (2011). Development of Social Democratic Economic ought in Nepal. Tribhuvan University
- Nesadurai, H., (2005), Conceptualising Economic Security in an Era of Globalisation: What Does the East Asian Experience Reveal, CSGR Working Paper No. 157/05.
- The Order of the President of the Republic of Azerbaijan on the approval of the "Concept of the National Security of the Republic of Azerbaijan", 2007.
- William, I. (2007) Theories of Globalization.
- www.imd.org/research-knowledge/articles/2018-com-september/#&gid=1&pid=4.
- www.forbes.com/sites/mikecollins/2015/05/06/the-pros-and-cons-of-globalization/#20b5f66dcce.
- www.stat.gov.az/source/system_nat_accounts/



Theoretical and Practical Approaches to the Influence of Public Service on the Relationship between Government and Business

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Abstract

The article discusses the importance of changing the model of the state administration in the period of reforms, and the need to find mechanisms for more effective management of relationships and interaction between business and the state. Was made an analysis of the need for changes in the decision-making process on the regulation of business activities; the extent to which entrepreneurs, government officials and political leaders participate in these decisions; different attitudes towards the opportunities and freedoms given to civil servants in making these decisions. The study drew attention to the experience of various developed countries, it was also shown the reforms taking place in public administration model of Azerbaijan. The article used methods of comparative analysis, logical generalization and synthesis. Were made recommendations to increase the efficiency of public administration.

Keywords: civil service, public administration, government intervention in the economy, government relations, model of partnership between state and private sector

Introduction

Development of competition, state and over-state (from international organizations, etc.) regulation of market activity, socio-demographic state of society and change of its composition, increase in ecological problems, increase in investment needs, cyber security, fight against terrorism, protection of national interests, the increase in the intensity of movement of human resources, modern technologies and capital, the formation of new logistic systems and a number of other similar factors determined increasing the role of public administration.

The interrelationship of the state with business has always been multilateral: from the acquisition of a controlling stake in an enterprise and participation in a meeting of directors of a representative, right up to informal negotiations about the composition of enterprise managers and the choice of strategic development goals.

It is obvious that both excessively high and extremely low levels of state intervention in the economy are equally harmful. At the same time, attention should be paid to two principal strategic elements: the conformity of the state functions with its potential and the strengthening of the state potential through the revitalization of public institutions. But in practice, this creates a number of problems. For example, the desire to achieve more, while possessing limited capabilities, may adversely affect the quality and a number of other indicators and, consequently, do more harm than good. That is why, if the state has limited capabilities, it is necessary to carefully determine and justify the direction, form and means of its intervention in the economy. At present, the government's refusal of unnecessary positions and obligations, and the transfer of management and leadership in a number of areas to the private sector, is an example of a reassessment of vertical integration.



Literature Review

The effect of public service on the interrelation of the government-business: a theoretical approach.

Studies on the relationship between business structures and government, as well as the rapid changes taking place in political life, show that political leaders (especially heads of state) are faced with the fact that large political groups whose interests and actions at certain levels were predictable, at the moment divided into small temporary groups, formed in a very short period of time, able to rally around a common problem and capable of fast moving but to unite, disintegrate and re-unite in a certain alliance. And this, in turn, led to the relevance of a new theoretical approach to unstable systems. But “the activity of state administration is by its nature aimed at resolving conflicts and contradictions arising between general and special interests”, [2, p.50]. The problem of compliance and representation of interests began to receive more attention at the beginning of the 20th century. A. Bentley and D. Truman proposed to look at politics (the political approach of the government) as an arena of rivalry between the interests of various groups. L. Janda, D. Louri, A. Potter, J. Wilson, K. Wall and others investigated the influence of interests of various groups on political processes in countries such as the United States, Great Britain, France, Italy, and also examined in their research questions regulating the legislation of the activities of the lobby. L. Mises, F. von Hayek and J. Schumpeter, who study the role of interest groups in shaping economic policy and features of bureaucratic management, pay attention to the danger of uncontrolled public administration. There are also voiced thoughts about the creation of inefficient institutions by the state, changing market rules with particular interest groups in their own favor and obtaining political rent. In the 50's and 60's of the last century, D. Black, C. Arrow, E. Downs, J. Buchanan, G. Tallock, M. Olson, D. Muller, R. Muller, U. Niskanen, criticized the Keynesians, questioned the state's intervention in the economy. Proponents of the theory of public choice, drawing an analogy between the state and the commodity market, study the state as a market of a particular form. But the political mechanism they regard as a clash of interests of various groups and a means of finding a compromise [Hardin, R. 1991, Hardin, R. 1995]. Proponents of the theory of public choice, widely using in their research the principles of classical liberalism and marginal methods of analysis, began to study the influence of government decision-making processes from the fields of sociology and the right to economics. So, in 1951 and in 1963, C. Herrow in his book “Collective Choice and Individual Values”, and in 1962, J. Buchanan (James McGill Buchanan) and G. Tallock in their monograph “Calculation of consent . The logical foundations of constitutional democracy ” conducted a similar analysis between the state and the market. And the relationship between citizens and the state were considered from the point of view of the “service for service” approach (quid pro quo). Research in this direction continues, and in 1985, J. Buchanan's The Foundations of the Rules, written jointly with J. Brennan, compares the political rules and the rules of the market order. But nowadays, the concept of public choice widely used in research is in some cases interpreted as state, public, social, and finally public control [Nureev R.M. 2005]. Although, speaking of public choice, meaning the choice made by the society, i.e. the choice of voters (citizens). The activity of the state apparatus is the object of constant public interest and is under its control, while the bureaucracy acts as an agent producing public services. Therefore, problems on the similarity of political rent and its features become subjects of discussions [5].

Methodology of Research

We used methods of comparative analysis, logical generalization and synthesis.

Models of interrelation government-business

The study of studies of a number of scientists allowed us to identify the following models of interaction and mutual influence of government and business:

1. Partnership based models:

- Corporate model - in it business has a small number of alliances and there is a right of a monopoly on representation, and participants of alliances are formed at the expense of government incentives. [Shokhin A.N., Korolev E.A..2008]



- Pluaristic model - stands out for a large number of alliances in business, free competition between them and the lack of state control. [Shokhin A.N., Korolev E.A.,2008]
- Functional (political) model - a model in which the government and business are mutually removed from the right to control each other, and each freely performs his duties. [Turovsky R.F.,2009] The trading model (auction, negotiated agreement) also applies to this type, and here neither the state nor the business can dictate their own rules of the game to each other. [Ivchenko S.A., Liborakina M.I., Sivaeva T.S.,2003]
- Model of cooperation (political partnership) - the government establishes partnerships with business structures. [Turovsky R.F.,2009] In the model of cooperation, political and economic leaders conduct a dialogue with the goal of helping each other. [Lapina N., Chirikova A.,1999] As several types of cooperation models, also offered the models “Buy-build-manage”, “Build-own-manage”, “Build-own-manage-transfer”, “Build-manage-transfer”, “Compose-build-finance-transfer” and “Project-build”. [16] Also, as another type of cooperation model, you can specify the model of “social cooperation”. In this model, it is proposed that government representatives assume the role of coordinators of social investments in business. [Ivchenko S.A., Liborakina M.I., Sivaeva T.S.,2003]
- The model of state custody (state patronage) is a model that seeks to control the business elite [Turovsky R.F.,2009]. At the same time, the model of state patronage implies the use by the government of administrative-indicative relations to representatives of the market [Lapina N., Chirikova A.,1999]. At the regional level, this relationship can be built on the basis of corporate and statist models. In the corporate model, the regional government depends on business structures, and, often, this is observed in underdeveloped regions that need subsidies. In the statist model, the regional government achieves superiority in relations with business structures by setting the rules of the game for them.

2. Conflict Based Models:

- A conflict model is a model in which there is no stable relationship between the government and the business elite [Turovsky R.F.,2009].
- The pressure model is a model formed as a result of the weakness of the government elite, and, as a result, their inability to put forward an authoritative leader, draw up a program of necessary development and form a consolidated team of like-minded people [Lapina N., Chirikova A.,1999]. Another form is the voluntary-compulsory charitable model, in which enterprises must participate in the implementation of “social” programs, while the dictatorship of the government impedes the growth of corporate programs efficiency [Ivchenko S.A., Liborakina M.I., Sivaeva T.S.2003].

3. Mixed type models:

- Symbiotic (mixed) model - is a combination of business and government, which, in turn, may be accompanied by the dominance of one of them, the superiority of one over the other [Turovsky R.F.,2009].
- In the model of “privatization of power”, the business structure (one or several groups) takes control over the government [Lapina N., Chirikova A.,1999]. It can also be noted that the City-Combine model is similar to this model, in which the dictatorship of business over the government is observed, but this dictatorship is not profitable for the business itself [Ivchenko S.A., Liborakina M.I., Sivaeva T.S.,2003].

4. As models depending on the state of the market, you can specify theoretically ideal (ie, ideal market conditions), national (certain national economic model), normative (functioning on the basis of specific official norms), real institutional (functioning in a certain territory) models [Shapoval V.M.,2008]. And based on the experience of various countries, one can even see that the models are represented in the form of multi-colored zones, the color of which is associated with the color of socio-economic conditions. Thus, the “White zone” implies the creation for all entrepreneurs of the same, identical rules of the game and the achievement by the state of their forced compliance with these rules; “Black zone” reflects informal, criminal and, in particular,



corruption experience; and, finally, the “Gray zone” is the experience of entrepreneurs in informal negotiations with the government to ensure their functioning [Yasin E.,2002].

Findings

Impact of the state service on the interrelation of the government-business: Azerbaijan experience

In the past 20 years, there has been a qualitative change in the country's role in economic life. Recently, has been noticed a qualitative change in the goals and potential of Azerbaijan, which is trying to form a market economy. The country has sufficient reserve potential to achieve sustainable economic growth. In Azerbaijan, as a result of successive reforms carried out under the leadership of President Heydar Aliyev since 1993, have been achieved serious advances in the economy. In our country, which restored its independence, by decree of the President of the Azerbaijan Republic dated December 29, 1998, was laid the beginning of reforms in the public administration system and were carried out a number of successful reforms in the field of public service.

The presence of a strategic nature of the public service system requires compliance with the number and functions of public authorities, and the number of civil servants with modern conditions and requirements. In the period of optimization, it becomes necessary to eliminate repetitions in duties and functions, to strengthen the material and technical bases, to move to progressive management methods, to improve control mechanisms. Studies conducted in this direction show that “from 1998 to 2013, the President issued more than 31 decrees and more than 20 orders to improve the management system in the country and to carry out structural changes in the central authorities. In 2001 alone, 21 ministries and departments were abolished, and 7 ministries and departments were recreated anew. By 2013, were already operational 18 ministries; 13 state committees; 5 state-owned firms performing direct control functions; 2 concerns; 12 joint-stock companies; 3 associations; 7 agencies; 3 funds; 2 state commissions; 3 chambers; 7 highest courts. As of February 1, 2003, out of 3,781.1 thousand of the able-bodied population (46.8% of the total population), 21,000 people worked in the public service, of which 1,688 were in the judicial authorities.” [Ismayilov S., 2013, p.56-57]. If you look at the statistics, you can see that in 2017, this figure reached 29,302 people (see: table 1).

Although at first glance this figure seems high, but when compared with other countries, it is noticeable that this figure is small and that civil servants make up only 0.3% of Azerbaijan's working-age population. For comparison, we can say that in Sweden the number of civil servants is 9.9%, in Austria - 5.9%, in France - 5% and in Germany - 3%. It should be noted that in the state structures of Azerbaijan, among the civil service positions, prevail those that require possession of knowledge in the economic field (more than 70%).

Table 1. The number of people holding senior positions in the civil service in 2013-2017

	2013	2014	2015	2016	2017
Altogether, according to the country	29710	30108	30123	30090	29302
Leading administrative positions	9057	9284	9271	9258	9178
Including:					
Administrative positions from the highest to the 3rd category	1107	1147	1173	1214	1313
Administrative positions from 4 to 7 categories	7950	8137	8098	8044	7865

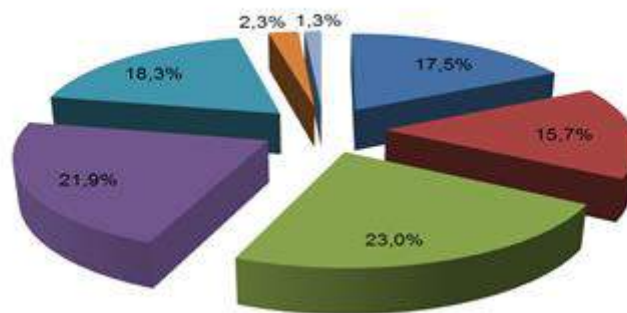
Source: <https://www.stat.gov.az/source/labour/>

We also note that in comparison with 2013, when employees of managerial positions made up 30.5% of all civil servants, in 2014-2017, although the number of civil servants decreased, the number of people occupying leadership positions increased by 0.3%. This happened due to an increase in people occupying categories from the highest to the 3rd.



Specialists who have been educated as part of the “State Program for the years 2007-2015 for teaching Azerbaijani youth in foreign countries” are accepted into the public service out of competition. Encouraging the involvement of young people in the civil service is also reflected in other regulations. One of these incentives is to create opportunities for university graduates who lack experience in participating in contests. In 2007-2014, the number of young people among applicants was more than 80%. At the moment, most civil servants are representatives of the middle age category.

Chart 1. Separation of public service employees by age categories on January 1, 2018



(17.5% - up to 30 years; 15.7% - 30-34 years; 23.0% - 35-44 years; 21.9% - 45-54 years; 18.3% - 55-62 years; 2.3% - 63-64 years; 1.3% - 65 years old and above)

Source: <https://www.stat.gov.az/source/labour/>

In the course of the sociological survey, it became possible to find out the attitude of the civil service employees to their activities, to assess their level of job satisfaction and to find out their proposals in the direction of improving the civil service. The number of respondents who participated in the survey was 393 people. 69.5% of survey participants indicated the answer “To serve the state, society and citizens” as the reason for their work in the public service. In the second and third place were the replies “Reputation of the civil service” (35.7%) and “Interesting work” (33.2%). In a survey that determines the level of satisfaction of civil servants with their work, 80.2% of respondents indicated that they were satisfied with their position, while 90% indicated that they were satisfied with the opportunity to work in public service and serve the public. 67.7% of respondents believe that there is a link between the work they have chosen and their knowledge and professionalism. But there were a number of aspects that the polled government officials were not satisfied with, among them - wages (at least two thirds of the respondents answered), working conditions (9.5%), and the unsatisfactory level of career growth and development prospects (10.1%). Thus, along with the successes achieved, there are a number of shortcomings in such areas as: the system of legislation of public services, the methodology for managing the system of public service, raising the skills of civil servants, stimulating and developing their professional activities.

Discussion

Relationships between political leaders, government officials and entrepreneurs: solving management problems.

In all democracies (France, England, Germany and others), the daily work of the government, documents for signature, including the design of the decisions taken, are not engaged in democratically elected officials, but bureaucrats. Political leaders (people holding political positions) often respond with displeasure about bureaucrats (people holding leading and executing positions in the public service) and point out that they face



many obstacles and difficulties in translating desired goals into reality [Toffler A., 2003, p.4]. Both in the USA and France, and in Great Britain, when appointing a minister to a position, he brings with him his advisers (on political issues in the area entrusted to him) and forms his cabinet, and when he leaves his position, they resign trail behind him. Both in France and in Great Britain the aim is to form a comprehensive professional manager, i.e. wide-profile administrative worker. And in the US model, attention is paid to the role of a specialist. In the UK, 60% of the state administration staff are specialists, and only in 1963-1980s the number of economists increased from 19 to 400. Only among civil servants is there still a division into 25% of specialists and 75% of generalists (people working in public service regardless of their specialization) [Vasilenko I.A. ,2001, p.128-168].

The consistent and systematic policy of the President of the Republic of Azerbaijan Ilham Aliyev to improve the business environment and create a local stratum of entrepreneurs ensures the long and harmonious development of the country. In this direction a number of comprehensive measures are being carried out, such as: development of the relationship between the state and entrepreneurship; improvement of the system of state regulation, legislation on the business environment and administrative procedures; regional development; the formation of state support mechanisms for entrepreneurship; education; development of business relations and the provision of various types of services. As a result of the adoption of the Law of the Republic of Azerbaijan “On the Suspension of Supervision over Business” dated November 1, 2015, it was possible to achieve the elimination of gaps in the legislation.

The range of measures listed below, indicated in the Action Plan of the Strategic Path Map in the perspective of the National Economy of the Azerbaijan Republic, is widely commented: “7.2.4. Priority 2.4. Taking measures to develop a partnership between the state and the private sector in order to implement complex projects, “Measure 2.4.1: Identify a mechanism to support the development of partnership between the state and the private sector,” “7.1.3. Priority 1.3. Strengthening the partnership between the state and the private sector” and “Measure 1.3.1: Improving the regulatory framework for public-private partnership”. The statement in the part “Measure 1.3.1: Improving the regulatory framework for public-private partnerships” states that “the regulatory framework, first of all, should consist of: a formal public-private partnership agreement; approving the list of areas suitable in the Azerbaijan Republic for this partnership and a number of other relevant forms; adoption of other regulatory documents ”indicates that there is still a lot of work in this area. But the main task is connected with the elaboration and preparation of the concept of this sphere [1]. Despite the fact that the Law of the Republic of Azerbaijan No. 177-VQ of March 15, 2016, “On the Implementation of Investment Projects Related to Construction and Infrastructure Objects Based on Special Financing”, taken as the legal basis for relations between the state and the private sector, moments of using the “Build-manage-pass” model, the concept of the relationship itself is not yet ready.

Conclusions and Recommendations

In our opinion, aimed at the common interests, goals and fulfillment of duties beneficial for the country and society, the models of partnership between business and the state, as well as social partnership, are of great interest. Another model is a model of unilateral cooperation, which is implemented in two forms. In the first form, the influence of government structures on business structures prevails, and government agencies, acting on entrepreneurs, try to involve them in solving a number of socio-economic tasks. But the application of this model in fact faces a number of difficulties. As an example of such a problem, one can cite the participation of not all business structures in socio-economic processes. As a rule, only a small number of business structures are connected to these processes, and for the rest, the solution of the moral and social problems of society is not important. As a second form, you can specify a model in which business structures are interested in building relationships with government agencies. In this case, despite this aspiration of business structures, government structures may not take their interests and demands into account when solving political issues. But the



dominance of any of the parties in the partnership of the state and the private sector, as a result, leads to the fact that civil society accuses government structures of incompetence and inability to create the necessary quality team and offer an effective development program. And this, in turn, leads to increased discontent in society. Therefore, it is considered more advantageous to use the model of mutual cooperation, which satisfies the interests of both parties.

References

- Strategic Path Map for the National Economy Perspective of the Republic of Azerbaijan, approved by Decree No.1138 of the President of the Republic of Azerbaijan dated December 6, 2016. <http://www.e-qanun.az>
- Theory of Public Administration, Textbook, Baku, "Science and Education", 2010, p.50
- Ismayilov S., Past, present and prospects of civil service and management system in Azerbaijan. Baku 2013, p.56-57(in Azerbaijan)
- Ivchenko S.A., Liborakina M.I., Sivaeva T.S. City and business: the formation of social responsibility of Russian companies. M., 2003. p. 76 (in Russian)
- Institutional aspects of interaction of government, society and business in the post-Soviet space (Post-Soviet institutionalism 2012) Collective monograph) http://www.inst_annual2012.pdf(in Russian)
- Lapina N., Chirikova A., Regional elites in the Russian Federation: behavior patterns and political orientations. M., 1999(in Russian)
- Nureev R.M. (2005). Theory of public choice. M.: SU-HSE. pp. 31–32, 165–166, 209–210. (in Russian)
- Turovsky R.F. Regional models of interaction between business and government elites: modern processes and their socio-political consequences.2009,URL: <http://politcom.ru/8474.html>
- Shapoval V.M. Interrelationship between state and business on the basis of development of social responsibility // State and Regions. Series: Economics and business. 2008. №5. p. 196-201. (in Russian)
- Shokhin A.N., Korolev E.A. The interaction of business and government in the European Union.M., 2008
- Toffler, A. (2003). The Metamorphosis of Power, Knowledge, Wealth and Force on the Verge of the 21st Century. Moscow, (in Russian).USR: http://yanko.lib.ru/books/cultur/toffler-power_shift-ru-l.pdf
- Yasin E. The burden of the state and economic policy // Questions of economy. 2002 №11. p. 7 (in Russian)
- Vasilenko I.A. ,2001, p.128-168 Administrative and state management in Western countries: USA, UK, France, Germany. Tutorial. 2nd Edition, Revision and Supplement - Logos Publishing Corporation,2001, 200 pp.
- Hardin, R. (1991) Collective Action. The Johns Hopkins University Press.
- Hardin, R. (1995) One for All. The Logic ofGroup Conflict. Princeton University Press.
- United Nations Economic Commission for Europe . Guidebook on Promoting Good Governance in Public-Private Partnerships United Nations Economic Commission for Europe . Guidebook on Promoting Good Governance in Public-Private Partnerships
- <http://www.stat.gov.az/source/labour/>



Study of Effects of Toxigen Fungus in Some Foods

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Abstract

As a result of the conducted researches it has been determined that some products of plant and animal origin used for nutritious purposes in Azerbaijan distinguish for their number and type composition of their mycobiotas. In the course of analysis the products of plant and animal origin have been compared for the amount of mycotoxins and as a result it was determined that in fruits they had 2.5-3,4 times high rate than in meat.

Key words: products of plant and animal origin, mycobiota, mycotoxins

Introduction

Recent years are characterized by increase of scientific-technical progress and application of its results in various aspects of our life. This case which positively evaluated from the first sight is not evaluated so positive from medical and ecological point of view. Thus, increasing progress speed of manufacture process of different assigned products day-by-day and correspondingly increase in use of raw materials had mad bitter results for humanity. The cases such as “biological” pollution, worsening of the environmental circumstance, food poisoning and etc. certify this fact actually [Алексеев И. А. и др., 2007; Балыбердин Б.Н. и др., 2010; Гудков С.А., 2004].

It is essential goal of science in front of society to prevent their happening and among them the facts regarding to preparation of food products for people have great importance. Thus, the attitude of humans which stands the highest level of development of creatures living on the earth toward environmental factors differs from other creatures.

Therefore, the most important liability of people working in the field of food is to provide people with necessary foods in any circumstance, as well as environmentally unfavourable circumstance (for instance, warm, drought, highly radiated areas).

As known, main part of human food consists of products gained from plant and animal origin materials. It is true that it is observed the increase of special weight of fungus among this food resources, but plants and animals preserve their main resource role in human’s need for food.

However, non-stop growth of population and correspondingly increase in need for food create some problems in food supply. It is not a coincidence that millions of people feel food shortage in many countries in the world obviously (<http://www.worldwatch.org/system>). There are some substances in the composition of plant and animal origin products which considered as a main resource of food for humanity and which are essential for other living things, as well as for nutrition of other creatures and these micro organisms or their metabolites are



come across in almost all of these products. The effect of these micro organisms or their metabolites on humans, animals and plants, as well as quality and quantity features of products gained from plants and animals have not been always positively estimated [94, 101]. Therefore, study of safety of raw materials, half-finished product or ready product for microbiological point of view is of great importance.

The purpose of study is to estimate plant and animal origin materials considered for nutritious purpose from microbiological point of view.

The objects of study are some plant and animal origin products, beef, mutton, chicken and some fruits.

Method

Theoretical studies are referenced to mainly reference information, practical studies are referenced to thin colonies upon rules admitted in microbiology, to get clear culture, visual and microscopic evaluation of clearance of culture and identification of them due to relevant indicators established upon cultural-morphological and physiological features.

1. Materials and discussions

The plants and animal origin materials used for nutritious purposes, more exactly meat (mutton, beef and chicken) and fruits which sold from various trade facilities for people has been the object of research. The used fruits mainly consisted of the fruits sold for people in open form, as well as included in canning. The products subjected to examination consisted of products manufactured in Azerbaijan, as well as the products exported from foreign countries.

To take specimens, to prepare them for planting, to plant them in favourable environment, to take them for clean culture, to determine their identification, number and type composition, to determine the number of micro toxins and etc. works have been performed upon methods and approaches admitted in microbiology.

The fungus types which synthesizing dangerous toxigen substances for human health participate in formation of micobiota of fruits. It has been considered expedient to analyse total amount of fruits, meat, as well as mycotoxins in the course of research in order to determine to what extent the participation of them is dangerous.

Table 1. Analysis of micobiotas of analyzed products (MAFAM) for their composition ($\times 10^3$ CFU/g)

Analyzed products	Winter	Spring	Summer	Autumn
Meat (beef)	5,4-6,1	6,6-7,9	9,3-10,2	10,1-12,2
Meat (mutton)	5,2-5,7	6,4-7,1	8,9-9,5	9,4-11,3
Meat (chicken, $\times 10^4$)	4,3-5,6	7,2-8,2	10,6-11,8	11,1-12,5
Fruit (fresh)	31,7-34,9	38,3-41,5	46,5-49,7	48,8-52,3

Table 2. General characteristics of various origin nutritious food

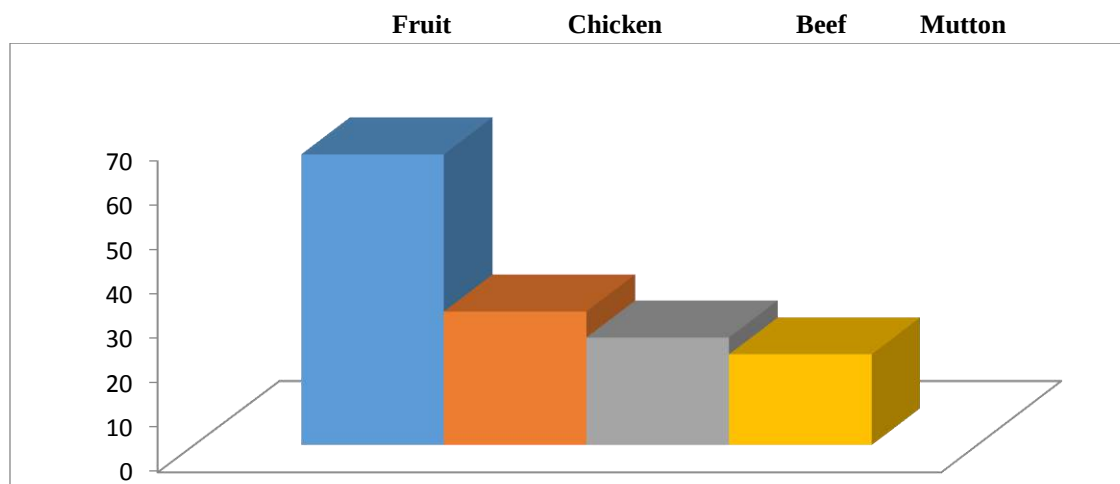
Analyzed products	Composition (annual average factor CFU/g)		Number of stams taken for clean culture	
	Bacteria	Fungus	Bacteria	Fungus
Beef	10100	984	12	26
Mutton	9700	930	11	27



Chicken	104000	1020	13	34
Fruit	48700	5200	10	40

It was clear from the gained results that products differed from their mycotoxin amount in their composition and naturally, the amount of mycotoxin in the composition of fruits prevail the amount of mycotoxin in meat and its quantity feature is 0.1-0.14 mkg/kg in fruits, in meat 0.04-0.10 mkg/kg. On the other side analysis of specimen taken from each analyzed product for their mycotoxin value shows that the frequency of determining mycotoxin in fruits has been 2.5-3.4 times higher comparing with meat products.

As known, information on amount of toxins always is shown in existing normative documents [12] for evaluation of nutritional value of products, as well as fruits from sanitary-hygienic point of view and in most cases this covers general mycotoxins. It is true that in some cases the feature is adhering to concretely to mycotoxin, for instance aflatoxin, but even this does not cover all furits.



Picture 1. Coincidence frequency of mycotoxins in separate specimens (%)

To us, numerous amount of mycotoxins, specific determination method of some of them and failure to determine some of them using the methods used for this purpose, to demonstrate them in such typed documents not in totally, but separately for the amount of each of them (especially, those which endangers human life) may be considered very useful for providing microbiological safety of nutritious substances.

I may be expedient to stress one more issue before summarizing the results of research gained in this stage. As you know, as agrarian sector holds special place in economy of Azerbaijan, it fails to manufacture the products, as well as fruits and meat in required amount.

Therefore, the needed amount of them is exported and sometimes the phytosanitary and epizootic condition of the place where these products are exported are not known and they may cause bringing of some infectious diseases. The fact enables us to say this thought that in all analyzed products (both domestic and exported) the microorganisms enabling dangerous complications (diseases, toxicosis and etc.) had been disclosed. Thus, it is essential to take into account all characteristics (number and type composition, effect mechanisms of metabolites driven from them and etc.) inherent to microorganisms in the course of preparation of microbiological safety principles of products used for nutritious purposes.



2. Scientific innovation

As a result of conducted research, microbiotas of some plant and animal origin nutritious materials have been evaluated for their quantity and type. It has been determined that although either plant or animal origin foods are characterized as one of inheritance places of microorganisms, their specific features for morphological view and metabolic activeness are seen in their microbiotas and chemical composition of products which subject to research has made special role in the form of specification. It has been disclosed that the analyzed products were enriched not only by microorganisms themselves, but also through various metabolites that among them mycotoxins were observed, too. The amount of mycotoxins in fruits is 2.5-3.4 times more comparing with other products.

3. Applicable importance

The gained results are factual materials serving enlargement of thoughts on microbiota of various origin nutritious products. The gained results may be used in development of new improved versions of “Sanitary-epidemiological rules and normative adopted by Ministry of health of the Republic of Azerbaijan regarding to “Hygienic requirements for safety and nutritious value of food products”.

4. Economical productivity

The disclosure of mycotoxins in some products which endangering human health creates chance to conduct microbiological control over the imported products seriously and necessity for improvement of documents regularly.

Results, Conclusions and Recommendations

1. Although both bacteria and fungus participate in formation of general microbiotas of plant and animal origin products, they differ from each other for their quantity feature of their type and amount, cultural-morphological characteristics, concrete expression form of products analysed for their metabolic activeness and they have different participation combination, that it enables us to mention that each product has separate microbiota, as well as specific elements of their microbiota.

2. It has been determined that although 26 bacteria and 48 fungus type participate in formation of microbiota of analyzed products, fungus are mostly found in fruits, and bacterias are mostly found in meat. Thus, 54% of disclosed fungus was found in fruits, 69% of disclosed bacteria were found in meat in the course of researches. It has been determined that microorganism takes part in formation of microbiotas of analyzed products enrich the said products by their own metabolites and among them the mycotoxins were found that their amount is 2.5-3.4 times more in fruits comparing those in other products.

3. It has been determined that currently, although “Hygienic requirements for safety and nutritious value of food products. Sanitary-epidemiological rules and normative” used in the Republic of Azerbaijan reflect most features which are important for provision of microbiological safety of food products, it is necessary to add specific types for safety degree of microorganisms, meanwhile to make some amendments for specific amount of dangerous metabolites (firstly, separate mycotoxins) formed by microorganisms.

References

- AGHAYEVA E.M. Biotechnology and gen engineering. Baku: “Ocaq” publication, 2008, 618p.
- JABRAYILZADA S.M. Study of microbiotas of fruit plants spread in southern slopes of Greater Caucasus (territory of Azerbaijan). Dissertation work Auto reference of PhD in Biology. Baku, 2005, 21c.
- ALIZADA K.S., MAHARRAMOVA M. H., MURADOV P.Z., GURBANOVA A.A., KEYSEKHSKAYA F.SH. Toxygen microbiota of nutritious plant materials.//ANAS Microbiology Institutions Scientific works. Baku: “Elm” publication, 2011, c.9, №1, s. 270-273.



- ALIZADA K.S., MAHARRAMOVA M. H., GURBANOVA A.A., GAHRAMANOVA F. KH., MAJNUHOVA A.A. Microbiological aspects of evaluation of plant origin foods and their safety. // ANAS Microbiology Institutions Scientific works. Baku: "Elm" publication, 2011, c.9, № 2, s.52-56
- ALIZADA K.S., GAHRAMANOVA F.KH., MAJNUHOVA A.A., KEYSERUKHSKAYA F.SH. Micological evaluation of some plants used for nutritious purposes./ Ecology and protection of life activity " VII International Scientific Conference 2012, s. 83.
- ALIZADA K.S., GAHRAMANOVA F.KH., MAHARRAMOVA M.H., YUSIFOVA M.R. Microbiota of plant origin foods and their some characteristics.// ANAS Microbiology Institutions Scientific works. Baku: "Elm" publication, 2012, c.10, № 2, s.27-30.
- ALIZADA K.S., ZULFIGAROVA A.G., MAHARRAMOVA M.H., YUSIFOVA M.R., RZAYEVA A.A. General characteristics of microbiotas of some plant and animal origin food used in Azerbaijan. // ANAS Microbiology Institutions Scientific works. Baku.: "Elm" publication, 2013, c. 11, №1, s. 47-52.
- FARZALIYEV E.B., FARZALIYEVA G.M., YUSIFOVA (GOZALOVA) M.R. On some biochemical features of various wild fruit and berries / Materials of scientific-theoretical conference dedicated to 10th anniversary of State independence in ASUE. Baku, 2001, s.34-35
- FARZALIYEV E.B., FARZALIYEVA G.M., YUSIFOVA (GOZALOVA) M.R. Study of pectins in various raw material resources and on probability of production in Azerbaijan // Materials of scientific-theoretical conference dedicated to 10th anniversary of State independence in ASUE. Baku, 2001, s.61-62
- Hygienic requirements for safety and nutritious value of food products. Sanitary-epidemiological rules and normative. Baku, 2010, 116c.

<http://www.state.gov.az/source/trade/>

<http://www.worldwatch.org/system/files/ESW020.pdf>



Businesses from Advertising Revenues Impact on the Social and Economic Development

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Abstract. The article deals with the impact of social and economic development of advertising activity of the enterprise income. Those who manage the entire market instruments widely use of the appropriated faster through the advertising business. This is due to the fact that the advertising marketing communication system of the market economy and market relation is one of the most important aspects of sales promotion methods of the most profitable selling. Advertising products and services support the connection between producer and consumer. Azerbaijan increased a competition among companies for creative advertising types used more.

In order to attract new consumers and to keep the place in the market of products, the use efficiency of a lot of ads has been increased. Advertising review was held for the companies in 10 shopping centers to assess the impact of the questionnaire. Some companies had been made for the sale of advertising between the networks. The kinds of merchandise have been identified for the established companies. Effective advertising activity of the enterprise available in the market, the increased risks suspension from the market by competitors, including the ability to influence the markets businesses, which is active in a market economy was reviewed as well. In other words, advertising competition leads to a more aggravated business. Market competition improves the quality of products and services. Investigating the company and one of its important social function is implemented for stimulation the labour of advertising. This is a positive result of human activities in order to increase motivation in people. Besides investigating the companies, advertising activities are developing on social values. Social and cultural characteristics reflecting the life way of people working in this company, helped them to form the stereotypes as well.

Key words: Institutions, socio-economic development, effective advertising activities

1.Introduction

Private enterprises are functioning in the economic system of capitalism. Ads are used in this system as a part of marketing in order to promote the product to consumers. Although Azerbaijan is part of about 70 Soviet empires, today our enterprises are governed by the requirements and laws of the market economy system. Business owners use the experience of the developed countries. The manufacture of a lot of products have become even easier to sell in modern times. Therefore, the business owners use advertising that affects market development. Advertising is one of the most important aspects of market economy and market relations, which has been linked to the advertiser, the producer of goods and services, and the consumer. Ads affects the interests of millions of people and turns into an integral part of their lives.

Promotion stimulates the sale and encourages consumers to buy products. As a result of all these processes, commodity circulation is increasing. The need is arising for new employees to be employed in the enterprise, and in general, the effectiveness of public production increases. Due to the strong competition among companies, the companies use the type of advertising for their product sales and services and its means of delivery to the consumer. The companies acting mostly in the same area are using similar ads. For example, super markets that sell foodstuffs distribute promo materials about discounted products to the door of the people living in that area. Distributed ads contain information about past and new prices for the discounted products. By giving information about other products, people are encouraged to buy these products.



Development of non-oil sector in Azerbaijan has enhanced the advertising by increasing competition in all spheres. It has social importance as well as its economic impact. Ads promotes the improvement of the living standards of the population, enhances the role of market economy, social, ecological, material and cultural capacities. It also helps the mass media, public organizations, nonprofit organizations to function well. It forms the legal, cultural, economic and national values of each individual.

2. IMPORTANCE OF ADS FOR COMPANIES

Today, companies are operating in changing market conditions and increasing competition. Advertising history of which based on the period of thousands of years ago has had a direct impact on sale realisation, market regulation, and companies.

Countries are able to obtain direct information for their acceptance of globalization. As a result, they are able to monitor changes in political, economic, technological and cultural backgrounds around the world. We can say that changes in micro-environment factors can be obtained by other citizens too. Therefore, market conditions in the world have been changed. The consumer behavior within the market conditions has been changed. Companies have also been able to change their purchasing behavior as they operate in an environment where competition is intense. Advertising in social and economic development of enterprises has had also an impact on consumers' purchasing behavior. (Dilek, 2010) Advertising has a comprehensive impact on the enterprise's production and sales activities by maintaining, enhancing and increasing the market position of the product. Thus, the creative design of the product with the support of advertising material promotes the formation and development of the tastes of a large consumer audience, which leads to their aesthetic development and, thanks to them, the market seizures, the market share of the enterprise and the volume of sales. Advertising generates extensive imagery about consumers, buyers, and products produced by a specific manufacturer, and demonstrates its superiority over competitive products. And it encourages rival enterprises to produce more perfect products and to act more effectively. In order to achieve it, it is necessary to apply only the achievements of scientific and technical progress in production. As a result, advertising promotes the development of scientific and technical progress and the creation of a healthy competitive environment.

There are two approaches to the content of advertising today in literature of marketing in narrow and broad sense. *According to the narrow approach*, advertising means a paid, one-way, non-personal, and indirect appeal through mass media, internet as well as direct marketing in mass media in order to make a propagandize in favor of the product (service, idea, enterprise, etc.).

In a broader sense of the content of the ad, it is understood that any request by the manufacturer (seller) or their representative to a potential consumer (buyer). Companies have put together all their strength to create a positive image. Because businesses have been targeted to distinguish themselves from their market competitors and create a positive image in consumer mind. For this reason, marketing and advertising departments were forced to cooperate closely in many industries. A need is felt to influence the market, which is one of the main goals and objectives of marketing activity and the need to create demand for produced goods. We can say that consumers do not have any information about the consumption characteristics of new commodities on the market, which demand they can meet, their application areas, advantages, etc. In addition, similar products are sold on the market that can meet the same demand for different businesses, and consumers have to choose one of these products. Therefore, this principle is based on the consumer's ability to market consumer goods, their ability to meet demand, and so on. explaining the need for these products. Such transactions are, of course, made through promotional methods of marketing, particularly through advertising activity. Advertising is different from some other marketing spheres, after production (excluding sales promotion). Unlike some other business areas of marketing, advertising is realized after the manufacture of product (excluding the sale promotion). One of the purposes of the advertising is to create demand for the product, to increase product competitiveness, to form a company image and so on. (Novruzzada, 2016). Each company tries to use different methods to improve the effectiveness of its activities when the organization joins market relations. One of the most widespread methods is the efficient use of advertising and promoting sales (Olusolava, 2011)



2.1. Method

In the process of writing the carriage, a complex and systematic approach, survey method and correlation analysis were used.

3. ADVERTISING TYPES USED BY COMPANIES

One of the goals of each company to advertise its activity is to create demand for products, increase product competitiveness, build company image, and so on. Companies are facing difficulties in finding customers while offering many services. They use different types of ads to find them. different types of advertising are used for products that each enterprise sells. Sales facilities predict what type of advertising we must use to attract more and more consumers. Localized advertising must be international and local. International ads are published in newspapers, companies, magazines, televisions, and the Internet. But the local ads include newspapers, announcements, billboards, etc., which are not broadcast outside the country.

The targeted advertising stimulus for the market is the advertising of the industrial products to the people who consume the product, the food products, the products sold by distributors, and the industrial products. (Olusolova, 2011). In order to assess the impact of advertising on the company's revenues, a survey was conducted in 10 companies and identified which types of advertising they used. In this study, correlation analysis of various types of advertising was conducted in 10 companies of the Republic of Azerbaijan and the following results were obtained.

offenadu	wh adwer	ad tyup	inyeaad	youusein	ustiner	inefithoth	monadlos	yusedirpa	ysainwya	hmdygad	11a	11b	11c	11d	11e
1															
0,066	1														
-0,3	0,412	1													
0,53	0,573	-0,05	1												
0,319	0,28	-0,18	0,767	1											
0,121	0,482	-0,46	0,517	0,294	1										
0,015	0,151	-0,07	0,262	-0,2	0,585	1									
0,201	-0,43	-0,66	-0,13	-0,27	0,232	0,188	1								
-0,18	-0,84	-0,59	-0,56	-0,31	-0,04	0,13	0,586	1							
0,286	0,071	0,31	-0,15	-0,51	-0,16	0,176	0,206	-0,03	1						
0,123	-0,46	0,018	0,043	-0,15	-0,26	0,467	0,153	0,262	-0,07	1					
0,261	-0,42	0,112	-0,29	-0,08	-0,42	-0,26	-0,05	0,298	0,404	-0,02	1				
0,279	-0,04	0,12	0,048	-0,49	-0,08	0,578	0,154	-0,06	0,431	0,647	-0,23	1			
0,089	0,234	-0,26	0,7	0,398	0,585	0,583	0,251	-0,15	-0,31	0,366	-0,57	0,238	1		
0,089	-0,1	0,477	-0,47	-0,6	-0,65	-0,25	-0,25	-0,15	0,665	-0,04	0,383	0,408	-0,67	1	

Table 1. Correlation analysis of various types of advertising in companies in the Republic of Azerbaijan

As a result of the research it was found out that different types of ads are used in Azerbaijani companies. Upon analyzing correlations in the table, we see that there have been a special role in the use of advertising services to increase sales in 10 companies and there is a functional connection (1.00).

Upon analyzing the answer to the question "Which type of advertisement do you use?", the following results were obtained:

- In response to the question "Which advertising tool do you use?", there is almost no strong relationship between the companies. Average relations are (0,65;0,52;0,31). We have obtained these figures in establishing a weak link (0,12; 0,14; 0; 20; 0; 28; 0,26; 0,08) And the opposite links are (-0,30;-0,17).

- "Answering the question of using ads with consumers, we've achieved the following results. There is a functional connection (1.00) in a company. According to the results obtained from other companies, the average



relationship was 0.41, 0.57, 0.48. The weak relations values equalled to 0.27, 0.15, 0.07. But the opposite relations contain -0.42;-0.84;-0.46;-0.40;-0.10.

- In response to the question "Does the advertising type as consumer contact increase your earnings?" the followings have been obtained. A functional connection (1.00) is established for a company. There is a medium relation in two companies (0.47;0.30). The figures for the other two companies (0.01, 0.11) show weak relation. But the opposite relations are (-0.05;-0.17;-0.46;-0.07;-0.66;-0.58;-0.25) .

- The following answers have been obtained in response to the question "Do you use internet?" The strongest relation for a company is (0.76; 0.69). (0.04;0.26) were weak relation. But the opposite relation is (-0.13;-0.55;-0.15;-0.29;-0.46). These are the responses we received upon asking the question "Does your Internet use increase your earnings?" There is a functional relation for a company (1.00). But there was 0.39 average relation, 0.29 weak relation for others. And the opposite relation is (-0.29;-0.19;-0.26;-0.31;-0.51;-0.14;-0.07;-0.48;-0.59).

- "Is advertising offered on the Internet more effective than other types of advertising?"

Answers are hereby. A direct functional relation (1.00) has been established for a company. Medium relationships were established for both companies (0.58). But 0.23 weak relation was established in a company. (-0.04;-0.15;-0.25;-0.42;-0.07;-0.64) are opposite.

- Respondents responded to the question, "Do you have more monthly advertising costs?": the average relation was (0.58;0.57;0.46). Weak relations (0.12;0.17;0.18) were established. But the reverse link was -0.25 in both companies.

- The average correlation was 0.58 upon analyzing the correlation between the issuer of the company answering the question "Are you using direct post advertising?" But the weak relation has shown a result (0.20;0.15;0.25). The (-0.4;-0.25) was an opposite relation.

- We had the following answers to the question "Does your sale improves when you update your ad? ". There is (1.00) functional relation in a company. But the weak relation was (0.26;0.29). The opposite relation was (-0.02;-0.06;-0.14).

- The following results have been obtained in response to the question "How many days do you earn your advertising expenses?" The average relation is (0.40;0.43;0.66), but (-0.06;-0.31) was an opposite relation.

- We had obtained the following results in response to the question "Is the use of TV more effective upon advertising?" According to an answer we obtained the average relation is (0.36;0.64) and opposite relation is (-0.01;-0.04).

- The results we obtained in reply to the question "Is the satisfaction of customer the best advertising?" This company has direct functional relation (1.00). But its average relation was (0.38), (-0.23;-0.57).

- We have the following results as a reply to the question "Does advertising always increase sales?" There is (1.00) functional relation in a company. But its average relation was (0.40), weak relation 0.23.

- The following results have been obtained in reply to the question "Do the captured ads conform to our traditions?". Functional relation was (1.00) in a company. Its average relation was (0.40), weak relation 0.23.

- In response to the question "Are the consumers informed relatively when the advertising captured?", 1.00 functional relation have been obtained.

As a result of the study it became clear that 10 companies in Azerbaijan have used advertisements and their types. Some of these companies have a functional relation (1.00) among the asked question on their use of the ad. However, according to the first question, there are average relations in 3 companies and weak relations in six



companies. These results show that advertising and its types have not had a major impact on the growth of revenues. But according to the answer of the 2nd question, three of them were average, three were weak and five were weak relations. The main reason for the abusive relationship in these companies is that the public relations specialists do not have extensive knowledge of the mechanisms of public opinion formation.

The following results were obtained upon analyzing the answer to Question 3. There was (1,00) functional relation in a company. 7 relates to the causes of the inverse relationship:

1. Underestimation of problems in the company;
2. Unresolving the problem on time intentionally;
3. Wrong identification of different groups of real community;

In order to properly use the "Contact Ad Type of Communication", companies must solve the issues we have listed above. If the companies pay high attention to this type of ads in modern times, their revenues will increase.

4. Upon analyzing the 4th question, the strongest relation was 0.76. However, the number of inverse relations is 5. The main reason is that, despite the fact that 70% of the population of the Republic of Azerbaijan uses the Internet, there was no company that I conducted a survey. In order to make online purchases, companies should see and service consumers at their homes and offices. Companies increase their pace of development, as they are interconnected online with suppliers and internal workers. The following 5 questions are related to the internet, that's why there were 9 opposite relations. The main reason is that our questionnaire was held at the sales centers of food products. As mentioned above, Internet sales did not take high interest in the growth of companies' revenues due to the lack of online communication with consumers.

5. According to the answer of the 6th question, there were 6 opposite relations. Advertising a company via Internet is more effective because cheaper than other types of advertising. This type of ad allows to achieve higher results at less cost.

6. Upon analyzing the answer to question 7, we come to the conclusion that they can minimize monthly advertising costs by using online ads.

7. Upon analyzing the answers of our company's managers to our 8-15 questions, it was possible to identify high, medium relations based on the scheme. One of the prominent aspects is to reveal the contradictory points of the relationship. Based on these answers, we can say that the number of inverse relationships has diminished. 2 opposite relations have been noted except the answer to the question "Do your sales improve when you update the ad?" There was no opposite relations in answers to the questions 14-15. Because no matter what a type of ads companies used, they preferred our national values, the interests of our consumers.

According to our research, the results of regression statistics were as follows.

<i>Regression Statistics</i>	
Multiple R	0,11111
R- square	0,012346
Normalized R- square	-0,11111
Standard error	1,01835
Observed	10

Figure 1. Distribution of different types of advertising



According to this table, the value of the correlation coefficient was 0.11, and the coefficient of determinability was 0.01. It means that 1% of the volume of sales varies by the effect of advertising and 99% by other factors. The price of the standard error was 1.02 here. According to this research, the normal distribution schedule for different types of advertising has been as follows

CONCLUSIONS AND PROPOSALS

As a result of the research it became clear that 10 companies in Azerbaijan used advertising and its types. Some of these companies have a functional relation (1.00) for their use of the ad. Nevertheless, according to the first question, there are 3 average relations in the company and six companies have weak links. These results show that advertising and its types have not had a major impact on the growth of revenues. In response to question 2, 3 were average, 3 weak, and 5 opposite relations. The main reason for the opposite relations in these companies is that public relations specialists do not have extensive knowledge on the mechanisms of public opinion formation.

The following results were obtained upon analyzing the answer to Question 3. A company has had a functional connection (1.00).

The reasons for opposite relations include:

- Underestimation of problems in the company;
- Unresolving the problem on time intentionally;
- Wrong identification of different groups of real community;

In order to properly use the "Consumer Communication Type", companies must first resolve the problems that we have listed above. If the companies pay high attention to this type of ads nowadays, their revenues will increase.

:



Upon analyzing the 4th question, the strongest relation was 0.76. However, the number of opposite relations is 5. The main reason is that, despite the fact that 70% of the population of the Republic of Azerbaijan uses the Internet, there was no company that I conducted a survey. In order to make online purchases, companies should see and service consumers at their homes and offices. Companies increase their pace of development, as they are interconnected online with suppliers and internal workers. The following 5 questions are related to the internet, that's why there were 9 opposite relations. The main reason is that our questionnaire was held at the sales centers of food products. As mentioned above, Internet sales did not take high interest in the growth of companies' revenues due to the lack of online communication with consumers.

According to the answer of the 6th question, there were 6 opposite relations. Advertising a company via Internet is more effective because cheaper than other types of advertising. This type of ad allows to achieve higher results at less cost. Upon analyzing the answer to question 7, we come to the conclusion that they can minimize monthly advertising costs by using online ads. Upon analyzing the answers of our company's managers to our 8-15 questions, it was possible to identify high, medium relations based on the scheme. One of the prominent aspects is to reveal the contradictory points of the relationship. Based on these answers, we can say that the number of inverse relationships has diminished. 2 opposite relations have been noted except the answer to the question "Do your sales



improve when you update the ad?" There were no opposite relations in answers to the questions 14-15. Because no matter what a type of ads companies used, they preferred our national values, the interests of our consumers.

References

Aytekin, P. (2009) "Ethics of television commercials in advertising ethics in Turkey" <http://www.yök.gov.tr> p.266,

Dilek, S. (2010) Review of sales ads on the Internet through the misinformation of advertisers p-

Gokaliler, E. (2010) , "A New Media in Internet Advertising" <http://www.yök.gov.tr>, p.248, Nagiyeva, T. (2004) "Explained advertising dictionary" Baku

Naghiyeva, T. (2004) "Explained dictionary of advertising" Baku

Novruzzade, G. (2016) "Selection of Advertising Management Marketing Strategy in Enterprises" Azerbaijan State University of Economics Magistracy Center , p.10-15

Seeking a goodwill (2010) Examining online sales ads for advertisers in terms of deceptive advertising terms

Olusolava, A. (2011). The effect of advertising on the types of sales; the effect of advertising on sales. Degree Program in International Business, Valkeakoski, p.35

The law of the Republic of Azerbaijan on "Advertising". Law of the Republic of Azerbaijan "On Advertising". Baku, October 3, 2015



Correlation Between Parents' Attitudes Towards Physical Exercise and Anthropological Dimensions of Preschool Children

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Abstract

The paper titled “The Correlation Between Parents’ Attitudes Towards Physical Exercise and the Anthropological Dimensions of Preschool Children” is based on research data collected at the Grigor Vitez Kindergarten in Zapruđe (Zagreb, Croatia). The research was conducted on two preschool groups of children (six year of age and older), Ivančice (Daisies, 26 children) and Ljubičice (Violets, 27 children) and on their parents.

The goal of this paper was to establish the strength and the impact of parents’ attitudes towards physical exercise and anthropological dimensions (physical abilities – repetitive = MST and explosive strength = MSDM, balance = MRSJN, coordination = MKPN, speed = MBTR, flexibility = MFSR and morphologic characteristics – height = ATV and weight = ATM) of preschool children. The survey was conducted (using the Likert scale approach) among parents, after which a measurement of the children’s motor skills and morphological characteristics was carried out.

The results showed an insufficient/weak link between parents’ attitudes and the children’s’ measured motor skills. A possible explanation of such an outcome could have its roots in the relatively small sample, as that of measured variables as the limited number of participants. In order to obtain more reliable results, it could be beneficial to conduct further research on a bigger sample of participants.

Keywords: *physical exercise, child, morphological characteristics.*



Introduction

“MENS sana in corpore sano” is a Latin proverb, which originates in the Ancient Greek teaching on the harmony between the spirit and the body. Contemporary science has proven this Ancient Greek saying as true. The biology of learning indicates a connection between physiological processes and cognitive capabilities, and it explains integral development (Ismail, 1976). The initiator of these physiological processes is movement, i.e., motor activities. The sedentary way of life is the principal cause of negative influence on a person’s state of health. Movement presents one of the essential needs in children and in adults. While in the first years of life this need is satisfied through play, later it is substituted by physical exercise. It is vital in maintaining physical as well as psychological health and well-being. Childhood years are when the most important processes take place, those that are most responsible for our entire psycho-physical development.

Apart from endogenous factors, among which genetic heritage is crucial, the environment a child lives and grows up in to a large extent influences the development of its anthropological characteristics. Research has shown that a habit of engaging in physical activity should be developed in preschool children (Wais and Ebbec, 1995; Malina, Boushard and Bar-or, 2004, according to Hraste, Đurović, Matas). There is a series of exogenous factors such as diet, socioeconomic status and physical activity which are important for the growth and development of children (Hraski and Živičić, 1996; Malina, Boushard and Bar-or, 2004; De Privitellio and associates, 2007, according to Hraste, Đurović, Matas). It is known that children in the earliest stage of life imitate the behavior of their parents who are responsible for their lifestyles, especially for the level of physical activity.

In the entire development of a child (biological, psychological and social), a crucial role is played by the need to engage in movement. Efficient movement in a child implies good coordination between three parts: the brain (center), the senses, and muscles, which, explained by Montessori as follows: “Without movement we cannot speak of the individual (a philosopher also uses his/her muscles when speaking or writing; when s/he cannot describe his/her meditations, is s/he not left without achieving his/her goal? Without muscles it is impossible to express ideas, written or spoken.)” The importance of movements for learning is explained by Eric Jensen in his book “Teaching with the Brain in Mind”. He cites the founding of a neurophysiologist, Carle Hananford, who claims that the vestibular mechanism, located in the inner ear, and the cerebellum system, responsible for coordination of motor activities, are sensory systems that develop before others.

The semicircular inner ear canals and vestibular cores gather information and are sources of feedback that allow movement to be performed. These signals continue to travel through the nervous bundle of the cerebellum and continue toward the cortex, including the visual cortex and the sensory cortex. In this way, the cerebellum modulates the vestibular cores, which then affects the activation system. In accordance to this, it gives a suggestion for initiating activities that stimulate the inner ear, and they are: swinging, rolling, jumping, twisting, turning... Jensen claims that the center of motion is not only in one part of the brain, and that “movement and learning are in constant interplay.”

Each time a baby attempts to grab an interesting item, or stares into something, tiny electrical potentials are created in the brain, connecting neurons in circles. This results in the creation of new neuron links and with them, new possibilities of change in behavior. A child’s brain awaits new experiences, while at the same time determining existing links. Before birth, it seems that genes are mostly responsible for the basic patterns of neuronal bonding. After that, neurons grow and are distributed, awaiting further instructions. Each vision, sound, smell, taste, language and eye contact aides in the shaping of new cerebral neuron ties.

Following birth, the brain of a newborn weighs 25% of the weight of an adult brain. By the second year of age, these values are increased to 75%. There are two basic paths of the development of the brain in the first two years of life – myelination, i.e., the process of generating myelin (a layer of lipid-rich cells which speed up the transmission of electrical impulses down the axon), and the development of connections between dendrites.



Myelination begins in the prenatal period and is continued after birth, for some parts of the brain till adolescence. A large increase of the number of dendrites and synapses (connections between neurons through which neurotransmitters pass on information) also characterize the development of the brain in the first two years of life.”

It is known that exercise stimulates the release of the substance BDNF (Brain-derived neurotrophic factor – a neurotrophic factor originating in the brain itself). This substance motivates improved communication between neurons. It has been known for some time that movement and physical activity stimulate an increased Oxygen supply to the brain, which is necessary for its proper functioning, as well as for the functioning of all cells in the body.

It can be concluded that a significant part of the development of the brain has to do with creating neuron connections and networks. The connections in a child’s brain that are regularly activated in real-life circumstances are best developed, while passive connections that are not used are lost. In order to motivate the growth of neuron circles in the brain, children need their own physical experiences. Motor growth and development, as well as sensory integration, are important for learning, because through movement certain parts of the brain, important for learning, are activated. Motivating preschool children to engage in physical activities can result in the creation of positive habits of regular exercise and adopting a healthy lifestyle. Indirectly this will prevent the development of various diseases (musculoskeletal, cardiac, pulmonary, etc.).

Experts from various scientific disciplines, such as medicine, nutrition, and kinesiology, suggest that physical activity, together with proper nutrition, has a major impact on health improvement, as well as the prevention of various diseases. The World Health Organization (WHO) recommends that every child should be active on a daily basis for at least 60 minutes. This does not only mean organized physical activity. It is important to differentiate child play from guided physical activity. In addition to organized physical activity, children should have enough time for free play and movement. They should be carefully introduced to sports activities in a way that is suited to the level of development of a child.

Parents are those who with their own behavior (through motivation and commitment) overwhelmingly influence the child and set the base for a safe and sound development of the child. A child’s leisure time depends on the parents “and on that basis first sports steps a child has to and should make is only at the incentive and with the support of the parents, and as such should be their obligation.” (Filipović, 2012)

Method

The aim of this research was to determine whether and to what extent parents’ attitudes toward physical exercise have an effect on individual anthropological dimensions of preschool children, and if they so, how much. The research was carried out in a Kindergarten in Zagreb. Children participating in the research were from two older groups (ages 6 and 7), 53 participants in total, 27 of whom were boys and 26 girls, and their parents (in some cases, only one parent).

For the estimate of morphological characteristics, two variables were measured: Body Height (ATV) and Body Mass (ATM). Variables suitable for preschool children were used for the evaluation of motor skills: MRSJN (balance – standing on one foot), MBTR (speed – tapping the hand), MFSR (agility – seated forward bend), MSDM (explosiveness – standing long jump), MST (repetitive strength – crunches), MKPN (coordination – backward movement through obstacle course), MI (running). For the evaluation of the parents’ attitudes a survey was used, in which parents’ attitudes towards physical activities in which their children would be involved were assessed.

The answers ranged from 1 – meaning: completely disagree, to 5, meaning: totally agree!

1. I think that I should practice at least 3 times a week in leisure time.
2. I believe that a child should be engaged in physical activity in leisure time.
3. I believe that physical activity is necessary for the development of the child.
4. I believe that children should visit playgrounds / parks to make them more physically active.



5. It is important to me that the child has as much physical activity because I am aware of the danger of inactivity.
6. I believe that a child should be physically active more than 60 minutes a day.
7. I believe that participation of a child in physical activity helps in socializing with other children.
8. I believe that as a parent I should be an animator / support in dealing with physical activity.
9. I believe that active leisure time with the child in nature is beneficial to his/her development.
10. I believe that regular exercise of the child's physical activity creates a habit of a healthy life.

From the obtained results, basic and dispersion parameters were calculated: arithmetic mean (AS), variant (Var), standard deviation (SD), minimal (Min) and maximum (Max) result, asymmetry (Skewness) and curvature distribution (Kurtosis), as well as the MOD and the Median. Using regression analysis, the interdependence of predictors and criterion variables was determined. In this case, a linear regressive analysis was used to determine the dependence of one variable on several independent variables. Gathered data was analyzed using SPSS 23 (Statistical Package for the Social Sciences) software for determining the correlation between anthropology dimensions of children and parents' attitudes by linear regression analysis.

Findings

After obtaining the results, determining to what extent the parents' attitudes toward physical activities influenced individual anthropological dimensions was attempted. Hence, Table 1 shows calculated values of morphological and motor variables used in the research. Data gathered concerning body weight and body height are in accordance to similar research conducted on the pattern of development of individual morphological characteristics at preschool children in the city of Zagreb (Horvat, 2017).

Table 1 Basic and dispersive parameters of individual anthropological values (N, Min, Max, AS, SD, Skew, Kurt.)

	N	Minimum	Maximum	Arithmetic mean	Standard deviation	Asymmetry (Skewness)	Curvature distribution (Kurtosis)		
							Std. Error		Std. Error
Weight	51	16.90	38.50	22.68	4.63	1.42	0.33	2.21	0.66
Height	51	105.00	133.40	117.37	5.58	0.61	0.33	0.50	0.66
MST30	51	1.00	23.00	11.63	3.87	0.17	0.33	1.41	0.66
MI120	51	131.00	196.00	173.67	10.64	-1.10	0.33	3.96	0.66
ITM	51	10.36	25.64	16.19	2.89	1.37	0.33	2.57	0.66
MRSJN K	51	1.43	30.00	15.23	9.91	0.27	0.33	- 1.40	0.66
MKPN	51	9.98	27.83	18.75	4.43	0.41	0.33	- 0.55	0.66
MSDM	51	52.33	141.67	91.86	18.42	0.20	0.33	0.43	0.66
MBTR	51	7.33	28.67	14.71	5.47	0.86	0.33	- 0.53	0.66
MFSR	51	-19.50	17.00	-1.74	9.03	-0.12	0.33	- 0.76	0.66
Valid N (listwise)	51								



When we focus on the values of individual variables of motor skills, we can discern that the biggest differences appear in repetitive strength tests (MST). Some children were successful at only one attempt in thirty seconds, while at the same time others were able to do more than twenty. Apart from the variable for the evaluation of repetitive strength, a similar result was obtained from the variable that evaluated explosiveness (MSDM), where the weakest result for the long jump was measured at 52.33 cm, while the strongest was three times better and was measured at 141.67cm. These results imply that in this (preschool) period, there are significant differences in the level of development of different types of strength, i.e. of those skills that are responsible for the regulation of excitation.

Table 2 illustrates the parents' attitudes toward physical exercise. From the presented data it can be concluded that question number 10 ("I believe that regular exercise of the child's physical activity creates a habit of a healthy life.") got the highest mark, while question number 6 ("I believe that a child should be physically active more than 60 minutes a day.") got the lowest score. This is distressing since the recommendation of the WHO suggests children should be active for more than 60 minutes each day. It is evident that parents need to be familiarized with this recommendation. Apart from that, question number 4 concerning the need of children staying outdoors also received relatively low marks. Obviously, parents should be additionally educated about the need for children to spend their time outdoors.

Table 2. Basic and dispersive parameters from the survey conducted among parents (N, Min, Max, AS, SD, Skew, Kurt)

	N	Minimum	Maximum	Arithmetic mean	Standard Deviation	Asymmetry (Skewness)	Curvature distribution (Kurtosis)	Std. Error	Std. Error
P1	52	1.00	5.00	4.42	0.89	-1.65	0.33	2.85	0.65
P2	52	2.00	5.00	4.81	0.56	-3.50	0.33	13.46	0.65
P3	52	3.00	5.00	4.85	0.46	-3.12	0.33	9.33	0.65
P4	52	1.00	5.00	4.42	0.94	-2.15	0.33	5.29	0.65
P5	52	2.00	5.00	4.65	0.65	-2.14	0.33	4.94	0.65
P6	52	1.00	6.00	4.37	0.95	-1.95	0.33	5.01	0.65
P7	52	3.00	7.00	4.77	0.58	0.06	0.33	4.33	0.65
P8	52	1.00	8.00	4.54	0.94	-0.41	0.33	6.07	0.65
P9	52	3.00	9.00	4.88	0.76	2.44	0.33	17.90	0.65
P10	52	3.00	10.00	4.98	0.80	4.51	0.33	31.30	0.65
Valid N (listwise)	52								

Table 3 lists the values that relate to the relationship between parents' individual attitudes towards physical activity and to certain morphological and motor variables.



Table 3. – R values and certain morphological and motor variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
BMI	.578	0.33	0.17	2.64
Balance	.546	0.30	0.12	9.28
Repetitive strength	.929	0.86	0.83	1.60
Aerobic endurance	.333	0.11	-0.11	11.22
Coordination	.576	0.33	0.16	4.05
Explosive force	.604	0.36	0.21	16.42
Speed	.593	0.35	0.19	4.93
Pliancy/Flexibility	.664	0.44	0.30	7.55

In relation to the attitudes of parents and the BMI, an R of 58 was obtained, which indicates that the correlation of predictors and criteria is moderate. 33% variance is explained (common space of anthropological dimensions and attitudes of parents towards exercise). One of the possible conclusions is that the number of questions in the survey should be increased.

The relationship between results of standing on one foot/BALANCING (MRSJN) and attitudes are fairly low) and R-54 and 30% of the variance is explained.

Parents' attitudes towards physical exercise and the results from repetitive strength are significantly related (R-93 and even 86% of the explained variance). Obviously, the level of repetitive strength is an indicator of the involvement of children in physical activity, which certainly has a significant effect on the relationship with attitudes. There is particularly significant correlation with the statement that "I believe that active leisure time with the child in nature is beneficial to his/her development". Predictors that are most correlated with the criterion variable are positive attitudes toward children's activities, the need to play outdoors, and the importance for children to participate in at least 60 minutes of physical activity each day. These findings point to the possible conclusion that positive attitudes of parents to the physical activity of their children may affect the development of individual motoric skills.



Table 4. – values of the B coefficient and coefficient and statistical correlation to the criterial variable (MST30) and the predictor.

Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	-26.09	5.50		.00
	P1	1.86	.33	.43	.00
	P2	3.79	.67	.55	.00
	P3	-.57	.85	-.07	.51
	P4	-.51	.38	-.12	.19
	P5	-.26	.47	-.04	.589
	P6	-1.55	.30	-.38	.00
	P7	.28	.60	.04	.64
	P8	-2.37	.39	-.58	.00
	P9	7.09	.68	1.39	.00
	P10	-.21	.95	-.04	.83

On the other hand, the correlation of attitudes and endurance has not been established (R-33), which indicates that children mainly perform physical activities that develop repetitive power but on the other hand seemingly spend little time outdoors and in games with continuous movement.

The correlation of coordination and attitudes is again relatively small (R-58 and with a small percentage of the explained variance, 33%). The reason for the above may be children in Kindergarten do not spend enough time in activities that develop coordination. The greatest correlation is between coordination and attitudes in the question "I believe that participation of a child in physical activity helps in socializing with other children."

The relation between attitudes and explosive strength is moderate (R-60 and 36% of the variance explained). It seems to me that children are not accustomed to, or avoid, activities that require the use of explosive strength. The sedentary lifestyle prefers comfort and conformism. The correlation is significant with the question "I believe that regular exercise of the child's physical activity creates a habit of a healthy life."

The correlation between attitudes and speed is again moderate (R-60 and 35% explained variance).

It is well known that speed is highly inborn and that certainly parents' positive attitudes parents have limited influence, which is confirmed. There is a correlation between speed and the statement "I believe that regular exercise of the child's physical activity creates a habit of a healthy life."

The correlation between the flexibility and attitudes is somewhat significant (R-66 and 44% of the explained variance).

It is probable that children are in the development age, when the flexibility is still highly inborn and when their body has not lost its flexibility. There is also a correlation with the question "I believe that regular exercise of the child's physical activity creates a habit of a healthy life."

Results, Conclusions and Recommendations

There is a strong tendency nowadays for encouraging physical activity of children in early and preschool childhood. Above all, this is the most important developmental period for the development of particular anthropological features. If we miss them then they can hardly be compensated in later stages of life. At that age, it is of crucial importance to create/instill a healthy lifestyle for the child as the basis for a healthy and high



quality development of his/her personality and adult development.

This research was designed to test the correlation between parents' attitudes towards their own physical exercise and the physical exercise of their children, as well as its impact on the growth and development of the children, i.e., to preserve and improve the health of the human being.

The results have shown that there is partial correlation between parents' attitudes and individual anthropological dimensions of pre-school children. Particularly large correlation was observed between attitudes and repetitive power (MST) and slightly lower with flexibility (MFSR). Correlation with the Physical Mass Index (ITM), Balance (MRSJN), Coordination (MKPN), Explosive Power (MSDM) and Speed (MBTR) are medium to large. Only in the correlation of these attitudes with Running (MI) is insignificant. The question remains whether parents, while filling out the questionnaire, idealized the answers, or how their answers were motivated with showing a more acceptable picture of their family and the upbringing of their children with regards to physical activity. It is also questionable how many responses are related to actual lifestyle? Was the survey adequately set up, or are the questions sufficiently specific to show parents' attitudes? The authors believe that additional research should be carried out to provide us with the appropriate information that could primarily be used to improve the conditions of children's growing up.

References

1. Đorđić, V. *Parents and physical activity of children of preschool and younger school age*. Interdisciplinary Scientific Conference with International Participation Anthropological Status and Physical Activity of Children and Youth, Novi Sad, Serbia, 2006
2. Horvat, V., Sindik, J. *Associations between Morphological Characteristics, Motor Abilities and Preparedness for School in Preschool Girls*. Scientific article. 2016
3. Horvat V, Hraski M, Sindik J. *The Secular Changes in Anthropometric Measures of Preschool Girls in the Period from 1998 – 2013*, Conference: 8th International Scientific Conference on Kinesiology, 2017, Opatija, Croatia
4. Horvat V., Mraković S, Bokor I. *Changes in Morphological Characteristics of Preschool Boys During Fifteen Years' Period*, Conference: ICLEL 2017, Porto, Portugal
5. Hraste, M., Đurović, N., Matas, J. *Differences in some anthropological features in pre-school children*. In: B. Neljak (ed.), *Proceedings of the 18th Summer School of Kinesiology of the Republic of Croatia "Methodological Organizational Forms of Work in the Fields of Education, Sport, Sports Recreation and Kinesiotherapy"* (pg.149-153), Poreč: Croatian Kinesiology Association.
6. Ismail A. H. *Integral Development, Theory and Experimental Results*, *Kinesiology* 6 (1-2): pg. 9-28, 1976
7. Jensen, E. *Teaching with the Brain in Mind*, Zagreb, Educa, pg. 101-111, 2005
8. Loupan, C. B. *Believe In Your Child - Awakening The Child's Full Potential*, 2006.
9. Rak, T. *Parents' Attitudes about the Physical Activity of Preschool Children in Leisure Time*. Zagreb: Faculty of Kinesiology, University of Zagreb, 2016
10. Santrock, J.W. *Child development*, New York City: McGraw-Hill Companies, 2009
11. Sindik, J., Horvat, V. (2015) *Structure of Parents' Attitudes towards Physical Exercise of Preschool Children and their Correlation*. Scientific work. *Naša škola* (0547-31018X) 70, 240; pg. 57-70, 2015.
12. Sindik, J., Horvat, V., Breslauer, N. *Attitudes towards Physical Exercise and Body Mass Index*. Scientific work. *Education in the Modern European Environment – EMEE 2012* (conference proceedings), 2012 / Prskalo, Ivan; Strel, Janko; Findak, Vladimir - Zagreb: University of Zagreb - Faculty of Teacher Education, 2014, pg. 157-165



Statistical Evaluation of The Impact of Social and Economic Phenomena on Birth Indicators

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Abstract

The complex and multifaceted nature of the social life of society comprises the system of different relationships. These relationships are interconnected and dependent upon one another as a system. The determining the nature and extent of relationships between demographic events and processes enables them to be managed more efficiently and wisely. The revealing of relationships between demographic indicators is primarily related to theoretical analysis. In general, the purpose of the statistics is the quantitative assessment and the discovery of the regularity of the relationships between these indicators. From this point of view, the regression-correlation analysis of cause-and-effect relationships is an important statistical method addressing several problems. In the article, the authors have evaluated the dynamics of the birth rate and the factors affecting it in the field of the study of demographic processes in Azerbaijan. In the article, the level of income has been indicated as one of the reasons for the limited number of children in families. The article measures the extent of the impact of the signs of the factor on the sign of the result through the regression-correlation analysis, the frequency of relationships is determined, and the role of factors studied in the overall change of outcome sign is determined. This is achieved by checking the adequacy of the model. Based on the analysis, it can be concluded that birth has been a key factor determining the growth rate of the population in the country. Continuous natural growth has been achieved by the high number of births. The birth, characterized by the emergence of new members in the population, is a positive side of the reproduction of the population.

Keywords: demography, birth, correlation-regression, statistical analysis

Introduction

The radical changes in the economy of Azerbaijan have had a significant impact on many areas. In consequence of this, the transformation of the Azerbaijani society, its social structure and institutes is accompanied with changes in demographic processes. Therefore, it is important to address the current problems in the demographic area in their context. The demographic processes play a special role in domestic and international activities of each country. The problems of the demographic development have a direct impact on the vital interests of the country's population and its demographic behaviour in close contact with economic problems.

Statistical study of the demographic processes is one of the priority areas of statistics. The significance of this complex socio-demographic process lies in the fact that it is the main factor influencing the change in the number and composition of the population, as well as the effective division of the country's labour resources among the spheres of the economy. The study of demographic processes, including the natural movement of the population and its dynamics has not only had theoretical significance. Such investigations are crucial for managing public life in the country, being one of the key conditions for making certain practical decisions. In other words, the study of natural movement of the population, marriage and migration processes is necessary for the development of optimal socio-economic and demographic solutions.

Method

In the course of the study, the indicators related to the birth were processed using statistical grouping, table, graph, regression correlation methods and the significant results were achieved.

Findings

One of the important conditions for the socio-economic development in Azerbaijan in modern era is the statistical evaluation of the demographic situation of the population and the trends in its development. It is known that a perfect analysis of the demographic processes is possible with the availability of better and comprehensive information. From this point of view, the system of information has been developed by the state statistics service, which should be continually upgraded in line with the requirements of the times.

Managing demographic processes is extremely difficult and complicated issue. Therefore, when assessing the dynamics and the development trends of socio-demographic processes occurring in the country, and their causes, it is very important to consider them in close contact with objective historical processes. This approach allows obtaining objective results on the population and the regularity of its development.

In the years of 1999-2017, the population of our country has considerably grown. Thus, according to the population census of 1999, the total number of population was 7953.4 thousand, while in the population census of 2009, the number was 8922.4 thousand, while on January 1, 2017 this figure was 9810 thousand people. Compared to 1999, the population has increased by 23.3%, compared to 2009 - by 9.9%. Compared to these periods, the population growth in urban areas was accordingly 27.9%, 9.7%, while in rural areas - 18.6% and 10.2% respectively. In 1999, the urban population was 51.1%, while the rural population was 48.9%, and in the beginning of 2017 the figures were 53% and 47% respectively.

As you can see, people still tend to move from rural to the urban areas. We believe that the necessary measures should be taken to prevent this process. It is no coincidence that the State Program on socioeconomic development of the regions was adopted by the Decree of the President of the country, which will prevent the flow of people from rural to the urban areas. Let's look at the following linear graphics to see more clearly the change in population numbers in the years of 1999-2017 (figure 1).

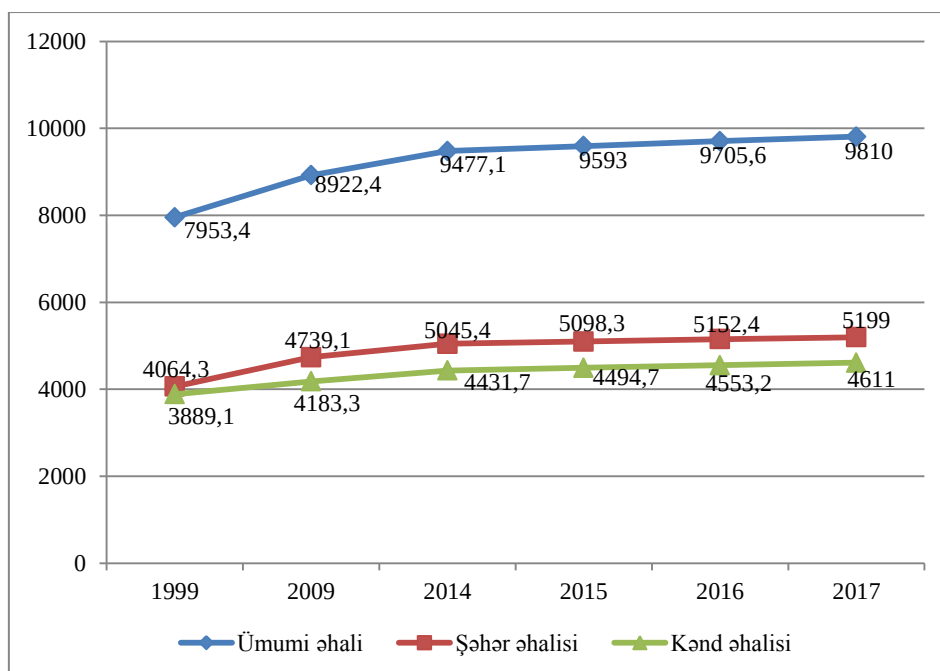


Figure 1. The dynamics in the number of the population in Azerbaijan in 1999-2017.

In 1999, the average density of population per sq.km of land area was 92 people, while 113 people in the beginning of 2017. The 2245,8 thousand (about 23%) of the total population are living in the capital of Azerbaijan, Baku.

If we take into account the number of refugees and displaced persons for the known reasons, this indicator will increase significantly. Since the second half of the century, the reasons for the changes in the dynamics and development trends of demographic processes in the Republic are numerous and many-sided. Generally, there are two sources of changes in the population: natural growth and the increase in migration. The decisive role in the demographic development of Azerbaijan has been almost natural growth throughout the whole period.

The analysis indicates that in recent years, the average annual growth rate of the rural population is higher than the average annual growth rate of the urban population, but the percentage of the urban population is still higher than the rural population.

The number of women was higher by the decrease in the number of men and the increase in the number of women in sex composition of the population. It should be noted that, according to the international methodology, if the disparity in the sex composition of the population is more than 3%, it is considered to be a serious non-conformance. In 2017, the 50.1% of the total population was women and 49.9% was men. The disparity in the sex composition of the population is 0.2%. Thus, the level of disparity in the sex composition of the population of Azerbaijan is normal.

The sex and age composition is of particular importance in the demographic development of the population and the formation of the social and demographic structure. Therefore, when evaluating the development trends, dynamics and forming characteristics of demographic processes, the impact of sex-age structure of the population should also be studied. Many changes in the sex and age structure of the Azerbaijani population and its current situation are the result of historical progress. Generally speaking, the socio-economic changes in the country in the early 1990s have a significant impact on the nature of the quantitative indicators of demographic development (birth, death, expected life expectancy at birth, sex and age composition of the population, natural and migratory growth, health, social structure, employment, education, professional composition, etc.). As we have noted, one of the important indicators characterizing the socio-demographic development of the country is the age and sex composition of the population.

The formation of the sex and age structure of the population directly depends on its reproduction process. Despite the decline in birth rates in the country over the past three years, achieving a low mortality rate has prevented the formation of an unfavourable situation in both the size and the age structure of population.

Changes in the age structure of the population have a significant impact on many demographic indicators. The change of the age structure leads to demographic loading of labour force of the country with children (0-14) and elderly people (60 years and older), as well as both categories of population. Therefore, the economic outcome and losses that this can have should always be the focus of attention.

Studies show that the main reasons for the persistent increase in ageing level are the decline in birth rates in the country, the decline in the specific share of the population included in the younger age group and the increase in the expected life expectancy at birth. Hence, the decline in birth rates and the increase in the number of elderly people are practically accelerating the aging process of the population. This in turn ultimately creates a long-term deterioration in the age structure of the population.

The age structure of the population is formed under the influence of demographic and socio-economic factors. The demographic factors include the proportion of female and male babies among the newborns, differences in male and female, mortality rates of the population, migration, while the socio-economic factors include the reproduction factors, especially the productive part, the position of women in society, and wars. The birth process plays a special role among the demographic factors. Because the birth is the main factor in the formation of the sex and age structure of the population. Depending on the dynamics of this phenomenon, the sex and age structure of the population is determined.

There were significant changes in the number of men and women in Azerbaijan in 1999-2017. Thus, in the same period, the number of men increased by an average of 1.3% per year, while women by 1.1%.

If we take into account that forming an optimal proportion in sex structure of the population assumes both demographic and socio-economic significance, it is not difficult to understand how important this issue is to society. The socio-economic situation of women in the society is reflected in the level of women's mortality, which leads to a decrease in their specific share in the total number of the population.

The demographic processes occurring in the society, especially the sex and age composition of the population change and develop on the basis of the interaction of two groups of factors. One of them is structural-demographic factors, and the other is socio-economic factors. The first group includes factors such as sex and age structure of the population, marriage and its dissolution, the difference in the birth rate of the rural and urban population, etc. and the second group includes the level of compensation of the material and moral demand of the population, cultural level, demographic behaviour of the population, etc.. All of the above-mentioned enable us to identify the major aspects of the statistical analysis of the sex and age structure and birth rate of the population.

The main objective demographic factor for demographic processes is the sex and age composition of the population. In the statistical analysis of the sex composition of the population, first of all, the total number of men and women in the country, dynamics of their development, the sex ratio in urban and rural areas, the level of disparity (non-conformity) among them, etc. should be studied.

Each of these age groups (below than working age, at working age, beyond the working age) has a specific place and role in strengthening the demographic potential of the country. However, it is important to reveal the development tendency in the proportion of these age groups. Because of the demographic aging trend in the population is weakening the demographic power of the country and leads to very serious socio-economic consequences.

Analyzing the impact of the demographic and socio-economic factors affecting the birth process and the birth on the sex and age structure of the population and on the basis of the obtained results, identifying and formulating the major directions in demographic policy, which activates the birth and leads to an optimal proportion of the sex and age structure should be considered as one of the important issues.

Thus, the main directions of the statistical analysis of the sex and age composition of the population will allow for deep and comprehensive study of the development trends and characteristics of demographic processes in the country, influence of various factors on them and other such social and demographic issues.

One of the main factors determining the demographic potential of the country is the sex and age composition of the population. The age and gender composition of the population and birth rate in the Republic of Azerbaijan and its modern characteristics have formed under the influence of the socio-economic, demographic, moral and psychological and many other factors. In general, it is important to distinguish between the three main research phases:

- evaluate the development trend of population reproduction and their internal characteristics;
- evaluate the effective and optimal directions of social and demographic development;
- develop a system of measures to ensure the development of social and demographic processes in the direction required by society.

As we know, one of the main feature of such interconnected studies is statistical methods. Therefore, the sex and age composition of the population in Azerbaijan will be thoroughly studied using the statistical analysis methods.

It is known that in order to properly evaluate each demographic phenomenon, it is important to have a certain studying method that allows taking into account the parameters of the phenomenon. One of the major problems in this direction is the achievement of unity in the principles of identifying events characterizing the natural movement of the population. This is a prerequisite for ensuring international comparability of information on statistics of the population. Thus, it is an objective necessity to harmonize the accounting principles and methodological rules of demographic processes with international standards.

According to the analysis, the numerous changes in the sex composition of the population of Azerbaijan in 1999-2017 has occurred. Thus, according to the census of the population of the Republic of Azerbaijan, the number of women was 4070,3 thousand in 1999, it is equal to 4508,0 thousand people in 2009, and in the beginning of 2017, this figure was 4918,8 thousand persons, in other words the number of women increased by 20.8%. The number of men respectively was 3883.1; 4414,4; 4891,2 thousand people, there was 26% increase in 2017 compared to 1999. As you can see, the number of men has increased faster than the number of women.

In the practice of statistics, when evaluating the age structure of the population, it divides it into three age categories. Prior to analyzing the category principle, it is necessary to study all age structure of the population. In recent years, the dynamics of all age groups in the population of Azerbaijan has been significantly changed. As compared to 1999, the number of 0-4 years old population decreased by 4.1% in 2009 and increased by %19.8 in 2016. In the period under review, the number of people aged 5-9 years was 920,0. thousand in 1999, 648.1 thousand in 2009 and 709.3 thousand in 2016. Compared to 1999, the number of people aged 5-9 decreased by 29.6% in 2009, by 27.5% in 2015, and by 23% in 2016.

On the basis of official data, the following could be concluded about the dynamics in number of population per age groups in Azerbaijan in recent years. Thus, the number of population in other age groups, with the exception of 5-9, 10-14 and 15-19 age groups (a decrease was observed in the corresponding period for these groups - 23%, 30.6% and 8.4% respectively), has significantly increased in 2016 compared to 1999.

The number of the population in 70 and older age group has increased by 58.8% in 2016 compared to 1999. In recent years, the average annual rate of change in this age group was 102.9%. The main trend in the dynamics of population in age groups during the study period is the low speed of growth in the number of young people and the high speed of growth in the number of 70 and older aged people. This indicates that the demographic aging process in the country.

According to the data on the rate of the population of different age groups, it can be noted that, the share of the population aged 0-14 in the total population was 31.8% in 1999, 23.5% in 2009 and 22.5% in 2016. The share of people aged 15-59 and 60 and above was respectively 59,1%, 9% in 1999, 68,5%, 8% in 2009, 67,7%, 9,8% in 2016. The analysis of this indicator also shows that the demographic aging process has developed in recent years.

During the analyzed period, there was a decline in the number of women per 1000 men per age groups of the population. Thus, the sex ratio was estimated as 1048 women per 1,000 men in 1999, 1021 women per 1,000 men in 2009, and 1006 women per 1,000 men in 2017.

Thus, the analysis shows that there are potential opportunities in the demographic plan to increase the population in our country. Therefore, by implementing an effective socio-economic and demographic-family policy, it is necessary to mobilize all the internal potential for the benefit of society as a whole.

One of the most important processes characterizing the natural movement of the population is birth. The birth rate of the population in the country and its modern characteristics are shaped under influence of socio-economic, demographic, moral-psychological and many other factors. It is known that in the light of the interaction of these factors, it is complicated and difficult to determine the effect of the internal developmental patterns of birth and its impact on age and sex structure. Nevertheless, it is possible to estimate the dynamics and development trends of demographic processes and the impact of various factors on them using the statistical data characterizing the natural movement of the population in the Republic of Azerbaijan. Only based on this approach, it is possible to achieve the development and realization of a scientifically justified and effective social and demographic policy that fully covers the specific features of Azerbaijan.

In recent years, the demographic development of Azerbaijan has been characterized by positive changes. Thus, despite the relatively low number of births, the number of deaths has decreased both in general and per some diseases, the expected life expectancy has increased, and the tendency to decline in child mortality was maintained. As a whole, these positive changes do not give us a reason to speak about the radical improvement of the demographic situation in the country. Generally, natural growth of the population depends on birth, death, marriage, divorce and so on. The main reason for the formation of population growth and natural growth is birth.

In 1960, the total birth rate in Azerbaijan was 42.6 ‰ and since 1964 this indicator has continued to decline and has dropped to 21.4‰ in 1994, and the decline continued in the next years. In 1995-1999 the level of this indicator dropped from 18.9‰ to 14.9 ‰. In 2000-2005, the overall birth rate was between 17.7 ‰ and 16.9 ‰ and, finally, in general, the birth rate in 2005 -2015 was between 16.9 and 18.1 ‰ and has shown the tendency to increase.

Thus, the analysis shows that from the 60s of the XX century until now the population of Azerbaijan has preserved the birth rate which can provide its simple reproduction. Nevertheless, the negative trend in the dynamics of this indicator cannot be overlooked. This tendency cannot be considered a common phenomenon, which is conditioned by common socio-economic factors. This is the tendency or demographic phenomenon gradually shaped by a long-term historical development. Therefore, it is necessary to reveal the main causes of significant changes in the birth rate at various times in order to properly assess the contemporary situation, to identify trends in development of that process and to take measure for adjustment of the process.

The study of the birth rate per various groups of the population, its dynamics, intensity, and factors affecting it are one of the key aspects of statistical analysis. Specific share of women of reproductive age in total population and the number of women, the rate of their growth, the number and specific share of women of reproductive age in marriage and outside marriage should be investigated and reviewed.

One of the main issues highlighted here is the calculation and evaluation of the net and brutto ratios of the population's reproduction. Because maintaining an optimal proportion in growth of men and women is a preservation of optimal level in population growth as a whole.

One of the main directions of the analysis should be the study of the final birth (reproduction) indicator, which characterizes the average number of births by each women of reproductive age (15-49 years of age) throughout their life for the country. One of the major issues researched in this regard is to study the dynamics of the use of birth potential of the women of reproductive age. Determination of this will allow for accurate assessment of the observed trends at birth.

The causes of the decrease in birth rate should also be investigated. In addition to demographic factors, socio-economic factors should be studied carefully. Birth in the family reduces the average income of the family by 20-30%. In this case, the social tension in the society that affects the birth rate, the effects of the financial situation of families with children, the unemployment, the level of real income and other factors I should also be learned.

It is also important to examine of demographic indicators (specific birth rates, the proportion of women of reproductive age in the total population and the number of women, etc.) that affect the change in the birth rate together. In general, the demographic statistics distinguish three main research phases. These include:

- to evaluate the development trend of natural movement of the population and their internal characteristics;
- to evaluate effective and optimal directions of social and demographic development;
- to develop a system of measures to ensure the development of socio-demographic processes in the direction required by society.

As we know, one of the main tools of such researches, which interacts with one another, is statistical methods.

In order to analyze the birth processes in Azerbaijan, it is important to first of all to clarify the current state and nature of the population's natural movement. The determination of overall socio-demographic characteristic of the natural growth of population will allow for a thorough investigation of demographic processes such as birth, death, marriage, and divorce.

In recent years the natural growth in the Republic has declined. The main reason for this is the low birth rate.

But in the future, as the result of the process of changing the age structure of the population, the favourable proportion of the number of deaths and births may be eliminated. Therefore, it is necessary to assess the natural growth potential of the population on the basis of changes in the age structure of the population, as well as in the proportion of births and deaths. Official statistics show that in 2006, the birth rate of Azerbaijani population was 17.5 ‰, 19.4‰ in 2011, and 16.5 ‰ in 2016. However, the decline in the mortality rate led to the formation of the natural population growth of 11.3 ‰, 13.5 ‰ and 10.6 ‰, respectively. Hence, the reproduction of the population did not pass to the stage where it did not supply its simple reproduction.

The analysis shows that the population is characterized by a tendency of low natural growth. This tendency shows in the linear graph No. 2 more clearly (Figure2.).

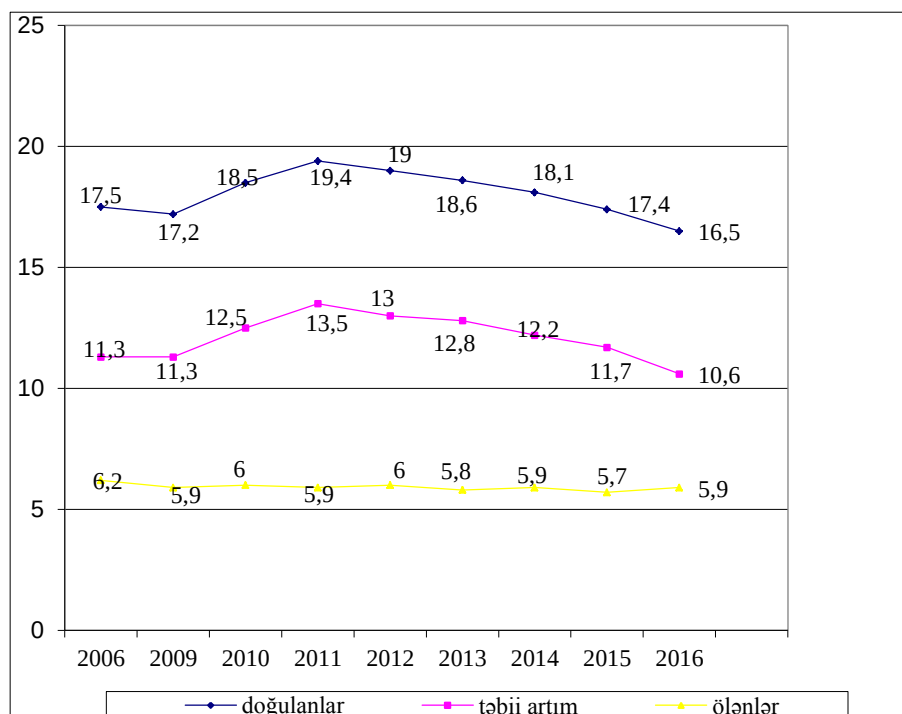


Figure 2. Dynamics of natural growth of the population in the Republic of Azerbaijan in 2006-2016, ‰

Research has shown that there are certain changes in demographic indicators of women of reproductive age in recent years. Thus, the number of women aged 15-49 has increased by 12.3% in 2005 compared to 2000, by 18.9% in 2009, and by 17.7% in 2015. As in the previous years, in 2015 the highest birth rate per age groups was belong to age

groups of 20-24 and 25-29. Specific share of these two age groups in women of reproductive age has not changed in the comparable years and equal to 34%.

The gross coefficient of reproduction was 2406.4 in 2000 and 2470.4 in 2016. This means that every 1000 women gave birth to 2406 girls in 2000 and 2470 girls in 2016. This is a level providing the simple reproduction.

Thus, the decline in birth rates in Azerbaijan has recently been reinforced by the interaction of two key factors. The first is the corresponding response of the population to the decline in living standards, and the second is the formation and development of a new type of reproductive behaviour in young people. In other words, significant changes in the process of family formation in recent years have led to the transition from family model with 3-4 children to family model with 1-2 children. In such circumstances, each family should be given the opportunity to solve some or all of the problems and families should be assisted by the state.

Birth, which is one of the components of population reproduction, is the main resource of long-term population growth, and in this regard, particular attention is paid to the analysis of the birth. The statistical study of birth begins with its quantitative assessment. Birth rates per population and its separate groups, urban and rural areas are defined. The reason for the necessity of giving a characteristic of the birth rate per separate population groups is its strong differentiation on marital status and the age of the woman and the territory.

In general, the main tasks of the statistic in the study of birth are to analyse the nature of the birth rate per the total population and its individual groups, to study the dynamics of birth and the factors affecting it, as well as its quantitative assessment, to draw the probability charts of births, to predict the birth rates.

Birth rate does not remain constant, changes constantly per territory and time. Understanding the birth trend plays an important role in the study of the regularity of the natural movement and reproduction of the population, the development of a scientifically justified demographic policy.

The change in birth occurs under the influence of a number of factors. They are grouped into the same group, selecting the most important factors that substantially determine the actual level of birth and evaluating their impact on the intensity of birth.

Analysis shows that birth has been a key determinant of population growth rates in the country. Continuous natural growth has occurred for account of the high number of births. The birth, characterized by the emergence of new members in the population, is a positive side of the reproduction of the population. Demographic statistics uses a system of indicators to measure the birth rate. The simplest of them is the birth ratio.

The birth rate depends on many socioeconomic factors, which are interconnected, contradictory in different circumstances, and functioning in the same direction.

Historically, the gradual development of birth is closely related to the social and economic development of society. As the productive forces develop and self-improvement of human occurs, as well as its intellectual potential increases, as the role and function of the family changes gradually, the gradual decline of birth has become a regularity.

In the concept of demographic transition, there is a strong contrast relation between the socio-economic development and the birth. However, there is a non-linear relationship that plays a more complicated, time-significant role between economic development and birth. In addition, separate countries and regions have their own peculiarities. Undoubtedly, the birth rate is closely linked to the state and development of society and practically all its aspects.

The socio-economic characteristics of the transitional period of Azerbaijan have led to the rapid diversion of objects that meet human needs. In addition, the market economy affects people's worldview, morale characteristics, and changes the relationships among people, and the basis of behaviour is the mutual benefit, the principle of

commercial computing prevails. As a result, demand for material benefits rises among the population and demand for children reduces.

Let's first look at the correlation relation in order to establish a regression equation among births for every 1000 people and the index of population's consumer goods and the paid services provided for the population, the poverty line and the total reproduction ratio. To make correlation analysis, we will enter the data and use the Excel program (Table 1).

Table 1. The dynamics of births for every 1000 people and the index of population's consumer goods and the paid services provided for the population, the poverty line and the total reproduction ratio in 2005-2017

Years	the total reproduction ratio, fertility	the index of consumer goods and the paid services provided for the population,	Poverty line in manats	Births for every 1000 people
2005	2,3	109,6	42,6	16,9
2006	2,3	108,3	58	17,5
2007	2,3	116,7	64	17,7
2008	2,3	120,8	78,6	17,4
2009	2,3	101,5	89,5	17,2
2010	2,3	105,7	98,7	18,5
2011	2,4	107,9	107,2	19,4
2012	2,34	101,1	119,3	19
2013	2,22	102,4	125,2	18,6
2014	2,2	101,4	129,6	18,1
2015	2,1	104,0	135,6	17,4
2016	2	112,4	148,5	16,5
2017	1,9	112,9	165,7	14,8
Total	28,96	1404,7	1362,5	229

According to the data, the regression model will be as follows:

$$\bar{y} = -6.776 + 10.541x_1 - 0.013x_2 + 0.022x_3$$

<i>Indicators</i>	
Correlation ratio	0,934
Determination ratio	0,872
Observations	13

	<i>Ratios</i>	<i>Standard deviation</i>	<i>t criteriacal</i>
Births per every 1000 people(y)	-6,776	6,333	-1,070
the total reproduction ratio, fertility(x ₁)	10,541	1,668	6,321
the index of consumer goods and the paid services provided for the population(x ₂)	-0,013	0,027	-0,488
Poverty line (x ₃)	0,022	0,007	3,362

As can be seen from the data, the factors provided in the model are important factors affecting the number of births. The calculated determination value of 0.934 indicates that 93.4% of the change in the number of births was formed due to the factors studied for the research. The remained 6.6% accounted for the factors not taken into consideration. It is easy to determine whether the regression model is significant or not based on the above indicators.

Let's use the following hypotheses to test the significant of the model.

H₀: The factors considered are insignificant for the model

H_a: The factors considered are significant for the model

Let's use the F criterion to test the significant of the model. If the value of the F criterion ($F_{cal} = 20.43$) is greater than the value of the F_{table} , the H_0 hypothesis is rejected or vice versa. In our case, the model is significant because $F_{cal} = 20.43 > F(3;9;0.05) = 3.86$

Determining the t-criterion in statistical studies is of particular importance. So, if the number of units is less than 30, t-test is advisable. If the t table value in α reliability level, n-1 degree of freedom is greater than calculated t-value, the hypothesis H_0 is acceptable, the factor considered is insignificant. In other words, changes in the sign of the result do not significantly depend on the signs of the selected factor. If the calculated value of t is higher than the table value of t, H_0 is rejected, meaning the model is significant. Based on the selected factors, a regression model can be established and researched.

Indictors	T_{cal}	T_{table}
the total reproduction ratio, fertility (x_1)	6.321	>1.796
the index of consumer goods and the paid services provided for the population (x_2)	-0.488	>1.796
Poverty line (x_3)	3.362	>1.796

As you can see, the increase in the index of consumer goods and the paid services provided for the population consumer goods and the poverty line for years result in decline in birth rate by 22% compared to 2012.

To check whether there is the auto-correlation perDurbin-Watson criteria or not, use the following information:

H_0 : there is no autocorrelation

H_a :there is autocorrelation

Based on the results of the calculation and the table($\alpha=0.05$)

$$DW = 1.917, \quad m = 3, \quad n = 13, \quad d_l = 0.715, \quad d_u = 1.816$$



As the DW statistic always has a value between zero and 4.0, the DW's value range from 0-4. Thus, $DW = 2$ ideal value that indicates there is no autocorrelation. In the studies, the application of the Darwin-Watson criterion, the value of the criterion is evaluated depending on the number of observed units, the number of factors, and the degree of significance. In our case, as the Durbin-Watson criterion is 1.917 for observed units of 13, the factors of 3, and the degree of significance of 3% and 5%, the hypothesis about absence of autocorrelation is accepted.

Results, Conclusions and Recommendations

It is recommended to improve the information sources for increasing the accuracy of the statistical measurement of demographic processes and for its practical usefulness. This requires the improvement and optimization of the base of the demographic statistics for the current and prospective period. In our opinion, the improvement of the information base for the current period may include the accurate selection of the main social and demographic groups of the population, elimination of incompatibility of information on the selected categories, the organization of selective research on important social contingents and for the perspective period, reflecting the characteristics of all the major social and demographic categories of the population, conducting regular selection studies on them, creating a registry system (databases), regular monitoring of the status and development of the social strata of the population. The main tasks in the field of demographic policy are to increase the average lifetime of the population due to the creation of necessary conditions for the birth rate providing the normal reproduction of the population, declining death rate, improvement of health and living conditions of the population, the adjustment of marriage and divorce processes per interest of the society as a whole, and each family. In our opinion, the new priorities in the demographic policy (propagation and protection of moral and ethical values of the family, the formation of healthy lifestyles, etc.) should be determined taking into account the country's socioeconomic and demographic strategical development directions at the modern stage.

In the course of the developing demographic programs that are an important tool for sustainable and continuous development, it is important that demographic factors be coordinated with the socio-economic and environmental problems. In our view, this approach will lead to increased responsibility of local authorities, public organizations and private sectors, along with central governmental bodies.

Both demographic and socio-economic factors affect the birth rate in the country. GDP per capita, its growth rate at its comparable prices, consumer price index, number of small businesses per 1000 people, growth rate of income of the population, rate of growth of income per capita, unemployment rate, average monthly nominal wage, consumer costs per capita, the share of the population with incomes below the minimum subsistence level in the total population, number of pensioners per 1,000 of population, marriage rate, the share of the rural population in the total population, divorce ratio, etc. affects less or more the total birth rate.

As a consequence of the study it was determined that the Azerbaijani population has able to preserve the birth rate that provides its simple reproduction until recently. Nevertheless, these or other trends in the dynamics of this indicator cannot be overlooked. Therefore, it is necessary to identify the major causes of significant changes in birth rates in order to correctly assess the current demographic situation, to identify and regulate the prospective development trends of those trends.

References

- Allahverdiyev R., Nasibov Kh. The aspects of the methodological approaches to population forecasting. // Statistical News Magazine // №1 / 2017 // State Statistical Committee of the Republic of Azerbaijan // Baku, p. 62-69.
- D.Lind,W.Marchal, S. Wathen. Basic statistics for business and economics. International Edition.McGraw – Hill/Irwin. New York. 2006. 564 p.
- Devlet Planlama Teşkilatı, “Nüfus, Demografi ve Göç,” Sekizinci Beş Yıllık Kalkınma Planı Özel İhtisas Komisyonu Raporu, Ankara, Nisan 2000, s.10, <http://ekutup.dpt.gov.tr/nufus/oik572.pdf>
- Muradov Sh.M., Bakhish Ch.A Ethno-demographic processes in the Republic of Azerbaijan: historical changes and realities. Baku, 2013, p.135.
- Statistical indices of Azerbaijan, State Statistical Committee of the Republic of Azerbaijan, Baku, 2017, p.824
- The concept of medium-term economic and social development of the Republic of Azerbaijan (2014-2017), Ministry of Economy of the Republic of Azerbaijan, August 2013, Baku p. 107
- www.stat.gov.az
- Yagubov S.M., Aliyev A.I, Yusifov M.A Population statistics. Textbook. Baku 2003, p.200.
- Yusifov M.E Statistical Analysis of Natural Growth of the Population in the Republic of Azerbaijan, Journal of Finance and Accounting, 2001, No.1-2.
- Zengin E. Demographic Situation and Sustainable Development: Example of Turkey / Journal of Qafqaz University. Number 20,2007, p. 179-186.
- Андреев Е.М., Баркалов Н.Б. Таблицы рождаемости по очередности рождений. «Вопросы статистики», НИЖ, 1999, №5.
- Архангельский, В.Н. Практическая демография .Учебник .под ред. Л.Л. Рыбаковского. -М.: Центр соц. прогнозирования: ПИК ВИНТИ, 2005. 277 с.
- Гладилин А.В., Герасимов А.Н., Громов Е.И. Эконометрика. Учебник. Ростов н/Д. Феникс. 2011. 297 с.



Relationship between Morphological Features and Lower Limb Explosive Strength in Boys

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Abstract

The aim of this study was to investigate the correlation between morphological characteristics and lower limb explosive strength. The sample consisted of 100 male respondents aged 4 to 18 years. Variables was composed of 12 anthropometric characteristics, percentage of body fat and vertical jump. For establishment the relationship between morphological features and lower limb explosive power Pearson's correlation coefficient was calculated. The result indicated that there is a statistically significant positive correlation between the morphological characteristics that are predisposed by regular growth and development (body height, arm length, leg length, etc.) and the explosive strength. Also, it shown statistically significant negative correlation between the variables that are indicators of wellbeing (fat percentage, skin folds) and motor performance. It can be concluded that boys who are overweight and obese reported poorer results in motor skill. Therefore, it is very important for children to be physically active to maintain normal health status.

Keywords: Anthropometric characteristics, Children, Motor abilities, Physical activities

Introduction

Morphological features (i.e. somatotype and body configuration) have an essential part in the performance of numerous physical actions (Saha, 2015). Somatotyping has a quite long practice in human biology. In the meantime of the early growth of Sheldon's somatotyping system, investigators have researched the association of somatotype and body composition to physical performance (Raudsepp and Jurimae, 1996). A youth finishes dissimilar stages of motor actions which be influenced by mechanic demands and morphological features (Bjelica, Gojković, Pržulj, Cicović and Joksimović, 2018).

The quantification of muscular ability seems to be of main significance in the identification of the prospective for motor enactment. Between experts, the agreement is that muscular power (or "explosive strength" as frequently converted into practice) is greatest significant for success in numerous everyday lifespan jobs as well as in physical activities. But muscular power is determined by a several of aspects, amongst them neuro motor (e.g., variations in coordination), biomechanical (e.g., muscle contraction physiognomies) plus somatotype and body configuration (Liebermann and Katz, 2003).

Vertical jump is frequently used as an manifestation for the power of the lower limb or explosive leg power (Chu, 1996; Moir, Button, Glaister and Stone, 2004; Richards, 1968; Shellock and Prentice, 1985). Vertical jumping skill is an significant essential ability for many physical actions. Vertical jump height is a dimension that trainers, health care experts, and strength and conditioning specialists regularly practice as an objective functional dimension (Waggener, Barfield and Sessoms, 2002). Papers concentrated on vertical jump concerning



performances propose distinct tests of characteristics for different age groups, followed by morphological features which may essentially affect the performances (Haguenauer, Legreneurm and Monteil, 2005), as well as gender and genetic indicators (Okely and Booth, 2004). Accordingly, countermovement jump without arm swing is commonly used test for define an explosive strength, also lower limb explosive strength is a very important fragment of basic motor abilities that indicates and is in relation with health and quality of life of children. Lepes, Papp, Ihasz, Nagyvaradi and Zrnzevic (2019) in their study concluded that boys who accomplished superior outcomes on measurements of motor abilities are additional physically active, filled of energy, feel well, spend extra period with associates and adore the care of their earls.

So, the objective of this study was to investigate the correlation between morphological features and lower limb explosive strength between boys from early age till adolescent age. From the objective of the study the null hypothesis are appointed. The first hypothesis is that there is a statistically significant positive correlation between anthropometric characteristics that reflect the proper growth and development in accordance with the age and vertical jump in all age groups of respondents. Another hypothesis is that there is a statistically significant negative correlation between the variables which are indicators of obesity (skin folds and body fat percentage) and the vertical jump.

Method

According to the purpose of this study, the investigation was provided on population of boys from early age in kindergartens to adolescents in high schools. Therefore, the sample consisted of 100 male respondents aged 4 to 18 years. The research was conducted in kindergartens and schools from city of Zagreb. All children included in investigation were healthy and parental permissions were collected. The measurements were carrying out in morning hours always by the same educate experts from Faculty of Kinesiology. Variables included in this study was composed of 12 anthropometric characteristics (BH-body height, AL-arm length, LL-leg length, ED-elbow diameter, AD-ankle diameter, SW-shoulder width, BW-body weight, UC-upper arm circumference, LC-lower leg circumference, BS- back skin-fold, US- upper arm skin-fold, SS- suprapatellar skin-fold), percentage of body fat (BF%) and vertical jump without arm swing on platform (CJ-Countermovement Jump). All collected data was analyzed by program Statistica 13.0. For all variables descriptive parameters were calculated (arithmetic mean, minimal results, maximal results, standard deviation). On behalf of normality of distribution Kolmogorov-Smirnov test was provided. In place of founding the connection between morphological features and lower limb explosive strength Pearson's correlation coefficient was calculated.

Findings

In attendance to investigate the relationship between morphological characteristics and motor abilities, precisely lower limb explosive strength, in boys and adolescents the measurements in kindergartens and schools were provided and the following results were collected. The obtained outcomes were analyzed and showed in Tables 1. to 5. Descriptive parameters show the highest range of results in variable *body height*, and the lowest standard deviation in variable *suprapatellar skinfold* (Table 1.). The minimum jump was 12,07cm, and the maximum countermovement jump was 50,77cm. In this table it is not detailed, but from results of descriptive parameters for specific age it is clear that with age the skinfolds of respondent's drastic extent.

Table 1. Descriptive parameters of morphological features and vertical jump

Variables	Valid N	Mean	Minimum	Maximum	Std.Dev.
BH	100	150,16	108,30	196,50	24,66
AL	100	63,42	44,40	84,40	11,26
LL	100	85,11	55,60	109,50	16,11
ED	100	59,39	37,00	86,00	11,82



AD	100	65,69	53,00	83,00	7,17
SW	100	22,37	13,60	35,20	5,64
BW	100	47,09	17,28	123,64	22,22
UC	100	25,31	15,60	39,40	5,96
LC	100	33,12	21,00	47,80	6,53
BS	100	9,71	4,00	29,00	5,99
US	100	11,54	5,00	27,00	5,73
SS	100	10,70	4,67	25,33	4,64
BF%	100	22,58	11,69	45,45	7,86
CJ	100	29,98	12,07	50,77	9,74

Table 2. shows correlations of morphological features and vertical jump of all respondents (second column) . Simultaneous shows separately correlations of all measured variables in boys from kindergarten aged 4 to 6 years. From marked correlations for all subjects it can be seen that all anthropometric characteristics, except skinfolds and body fat %, are significantly positive connected with vertical jump. That can be discussed that accordingly with age and regular development the boys can expressed their motor ability as it is expected, the motor ability improves. Moreover in young boys aged 4 and 5 there is no statistical significantly connections because in that age the movement coordination and motor knowledge of vertical jump is not clear yet. In age of 6 the connections are marked and in that period boys who have more body fat % and back and upper arm skinfold performed purer result in vertical jump.

Table 2. Correlations of morphological features and vertical jump of all respondents and separately boys from kindergarten

Variables	CJ-all	CJ-age4	CJ-age5	CJ-age6
BH	0,85*	0,03	0,36	0,10
AL	0,84*	-0,04	0,11	-0,41
LL	0,86*	-0,39	0,27	0,54
ED	0,75*	-0,28	0,25	0,58
AD	0,72*	0,62	0,28	-0,13
SW	0,79*	-0,01	0,25	0,35
BW	0,70*	0,30	0,42	-0,28
UC	0,49*	0,07	0,22	-0,22
LC	0,59*	0,08	0,59	-0,34
BS	0,11	0,19	0,51	-0,58*
US	-0,08	0,38	0,14	-0,77*
SS	-0,24*	0,06	0,51	-0,21
BF%	0,11	0,33	0,25	-0,70*

*-statistically significant correlations on $p \leq 0,05$

Furthermore, the similar results are presented for boys in the age of seven (Table 3.) It can be seen that there is positive correlations of all anthropometric characteristics with vertical jump. That is expected because it is normal that subject who is taller and have longer arms and legs, and stronger body jumps higher. But simultaneously, boys who have higher value of back skinfold, upper-arm skinfold, suprapatellar skinfold and body fat % have negative associations with vertical jump. That means that subject who are overweight presents weaker outcomes in basic motor abilities, precisely explosive strength.

Table 3. Correlations of morphological features and vertical jump of boys younger school age

Variables	CJ-age7	CJ-age8	CJ-age9	CJ-age10
BH	0,61	-0,28	-0,21	0,26
AL	0,90*	-0,60	0,08	0,25
LL	0,43	-0,44	-0,38	0,36



ED	0,90*	-0,49	-0,18	-0,03
AD	0,76	-0,19	0,26	-0,06
SW	0,93*	-0,51	-0,27	0,10
BW	0,63	-0,48	-0,18	0,05
UC	0,47	-0,56	0,06	-0,18
LC	0,53	-0,27	-0,59	-0,68
BS	-0,27	-0,69*	-0,24	0,04
US	-0,27	-0,55*	-0,24	0,06
SS	-0,16	-0,76*	-0,10	-0,27
BF%	-0,28	-0,60*	-0,24	0,12

*-statistically significant correlations on $p \leq 0,05$

Consequently, with age of respondents the statistically significant connections between morphological features and vertical jump are more expressed. From results of correlation analysis showed in Table 4. and Table 5. it can be seen that for boys from 11 to 14 years of age, who are in pubertal stage, is very important their physical condition to express great result in explosive strength of lower limbs. The same report goes for adolescents (Table 5.). In that period of life, there is no matter if the subject is higher and their body and bones are developed by age, it is more important that they have regular body mass. For the same reason, boys and adolescents who are obese and overweight accomplished purer results in their motor abilities which indicate bad physical condition and cautions of a high risk of cardiovascular disease and diabetes in later age.

Table 4. Correlations of morphological features and vertical jump of boys middle school age

Variables	CJ-age11	CJ-age12	CJ-age13	CJ-age14
BH	0,60	0,45	-0,50	0,19
AL	0,41	0,58	-0,61	0,10
LL	0,51	0,82*	-0,44	0,43
ED	0,46	-0,69	-0,94*	-0,46
AD	0,23	0,24	-0,36	0,07
SW	0,27	-0,21	-0,69	-0,21
BW	-0,09	-0,24	-0,87*	-0,50
UC	0,02	0,23	-0,49	0,23
LC	-0,08	-0,04	-0,80	-0,42
BS	-0,53*	-0,31	-0,51*	-0,61*
US	-0,51*	-0,47	-0,47	-0,67*
SS	-0,56*	-0,60*	-0,72*	-0,47
BF%	-0,49	-0,48	-0,35	-0,61*

*-statistically significant correlations on $p \leq 0,05$

Table 5. Correlations of morphological features and vertical jump of boys high school age

Variables	CJ-age15	CJ-age16	CJ-age17	CJ-age18
BH	-0,24	0,28	-0,01	-0,62
AL	0,07	-0,17	-0,23	-0,77
LL	0,08	0,26	0,12	-0,58
ED	-0,17	-0,69	-0,29	-0,74
AD	-0,14	-0,40	-0,20	-0,69
SW	-0,80*	0,51	0,01	-0,80
BW	-0,61	0,90*	-0,38	-0,58
UC	-0,51	0,52	-0,20	-0,28



LC	-0,38	0,51	0,40	-0,36
BS	-0,70*	0,17	-0,31	-0,64*
US	-0,56*	-0,11	0,11	-0,32
SS	-0,54*	-0,53*	-0,28	-0,58*
BF%	-0,55*	-0,01	-0,11	-0,13

*-statistically significant correlations on $p \leq 0,05$

According to the findings of this research the hypothesis can be confirmed. There is a statistically significant positive correlation between anthropometric characteristics that reflect the proper growth and development in accordance with the age and vertical jump in all age groups of respondents, also there is a statistically significant negative correlation between the variables which are indicators of obesity (skin folds and body fat percentage) and the vertical jump.

Results, Conclusions and Recommendations

The results in this study indicated that accordingly with age and regular growth and development the boys can express their motor ability as it is expected, the motor ability improves. From this statement it can be concluded that respondents who are mature can jump higher i.e. they have a better developed explosive power because they are older, taller, and stronger which is normal. But also in the direction of results of this research subjects from the age of 6 (primary school) till adolescents stage (high school) who have higher values on measurement in body fat %, back skinfold, upper arm skinfold and suprapatellar skinfold performed purer result in vertical jump. On behalf of these results it can be concluded that boys and adolescents who are obese and overweight offerings lower effects in basic motor abilities, accurately explosive strength. Saha (2015) similarly investigate the influence of morphological characteristics on explosive power. His results shown that vertical jump is significantly positively correlated with skeletal muscle %, lean body mass, mesomorph and ectomorph somatotype; but also body mass, body fat % and endomorph somatotype are significantly negatively correlated. From the given results Saha also concluded that somatotype and body composition variables are important factors in determining leg explosive power. Furthermore, Marta et al. (2013) examine the impact of body fat and somatotype on explosive strength in the prepubertal children. The data of their investigation applaud that somatotype has a large effect on explosive strength. Specifically, endomorphs have a negative influence on vertical jump gains while mesomorphs have a significant positive influence and that should not be ignored because the majority of body fat can be essential aspects affecting physical condition and normal development. The relationship between anthropometric characteristics and motor abilities of boys from first grade of elementary school investigate Rodić (2012). In his study obtained result showed negative relations between body mass and explosive strength. From that outcome he also concluded that anthropometric features of boys are very essential for the execution of motor abilities. Agreeing to the results of this investigation it can be concluded that for proper physical condition, healthy growth and development it is necessary to regularly monitor morphological features of children. In that period of life, from earliest age till adolescence, it is very important for children to have regular body mass and somatotype to prevent the occurrence of coronary heart disease and diabetes.

Recommendation for further studies is to investigate the relationship between morphological characteristics and other basic motor abilities such as coordination, speed, flexibility, balance and precision. Also it would be interesting to provide the measurements on girls from kindergarten till high school and compare their performance in motor tasks regarding to anthropometric characteristics, specially body fat% and skinfolds. In that case there would be covered the pattern of all children and the entire motor space. Those findings would be of great importance for parents, educators, teachers and trainers who must be a motivating factor in today's era of digitalization. The children must daily exercise and have proper nutrition to be healthy people, and not to spend time sedentary in front of screens.



References

- Bjelica, B., Gojković, D., Pržulj, R., Cicović, B., & Joksimović, M. (2018). Connection between morphological characteristics and vertical jump stiffness of Female volleyball players. *Int. J. Phys. Ed. Fit. Sports*, 7(1), 17-23.
- Chu, D.A. (1996). *Explosive power & strength*. Champaign, IL: Human Kinetics
- Haguenauer, M., Legreneur, P., & Monteil, K.M. (2005). Vertical jumping reorganization with aging: a kinematic comparison between young and elderly men. *Journal of Applied Biomechanics*, 21, 236-246.
- Lepes, J., Papp, R., Ihasz, F., Nagyvaradi, K., & Zrnzevic, N. (2019). Health related quality of life and its relation to motor abilities of early school age children. In Bjelica, D., Popovic, S. and S. Akpinar (Eds.), *16th Annual Scientific Conference of Montenegrin Sports Academy "Sport, Physical Activity and Health: Contemporary Perspectives"*, 4 - 7 April 2019, Cavtat, Dubrovnik – Croatia (pp. 36). Podgorica: Montenegrin Sports Academy & University of Montenegro.
- Liebermann, D. G., & Katz L. (2003). On the assessment of lower-limb muscular power capability. *Isokinetics and Exercise Science*, 11, 87–94.
- Marta, C. C., Marinho, D. A., Barbosa, T. M., Carneiro, A. L., Izquierdo, M., & Marques, M. C. (2013). Effects of Body Fat and Dominant Somatotype on Explosive Strength and Aerobic Capacity Trainability in Prepubescent Children. *Journal of Strength and Conditioning Research*, 27(12), 3233–3244. doi: 10.1519/JSC.0000000000000252
- Moir, G., Button, C., Glaister, M., & Stone, M. (2004). Influence of familiarization on reliability of vertical jump and acceleration sprinting performance in physically active men. *J Strength Cond Res*, 18(2), 276-280.
- Okely, A.D., & Booth, M.L. (2004). Mastery of fundamental movement skills among children in New South Wales: prevalence and sociodemographic distribution. *Journal of Science and Medicine in Sport*, 7, 358- 372.
- Raudsepp L, & Jurimae T. (1996). Somatotype and physical fitness of prepubertal children. *Collegium Antropologicum*, 20(1);53-59.
- Richards, D.K. (1968). A two-factor theory of the warm-up effect in jumping performance. *Res Q*, 39, 668-673.
- Rodić, N. (2012). Relationship between anthropometric characteristics and motor abilities of boys in the first grade of elementary school. *Sport Science*, 5(2), 24-27.
- Saha, S. (2015). Morphological Characteristics and Explosive Power of Athlete and Non-Athlete. *Arch Exerc Health Dis*, 5(1-2), 354-358. DOI: 10.5628/aeht.v5i1-2.174
- Shellock, F.G., Prentice, W.E. (1985). Warming-up and stretching for improved physical performance and prevention of sports related injuries. *Sports Med*, 2, 267-278.
- Waggenger, G.T., Barfield, W.R., & Sessoms, E.D. (2002). Prediction of maximal vertical jump height, revisited. *Int Sports J* 6, 107.



Role of Mathematics in Development of Economics

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Abstract

Mathematics is of central importance to modern society and it provides the vital underpinning of the knowledge of economy. It is essential in the economy, physical sciences, technology, business, financial services. The contribution of mathematics to the economy for the sustainable development of the country is indispensable. Mathematics forms the basis of most scientific and industrial research and development. Increasingly, many complex systems and structures in the modern world can only be understood using mathematics and much of the design and control of high-technology systems depends on mathematical inputs and outputs. Economics of the society is developed by establishment of industries. The applied mathematics like computational science, applied analysis, optimization, differential equation, Leontief model, data analysis and discrete mathematics etc are essential in industrial field. In this sense application of Leontief model to economy is very important. By application of such kind of mathematical methods, the consumption of electricity, the exploration cost of oil and communication cost of images could be reduced.

In this context, this paper will examine how mathematics can contribute to the sustainable development of the economy and a number of important mathematical solutions will be offered.

Keywords: Mathematic, Economics, Leontief model, lifelong education.

Introduction

What is mathematics?

Mathematics is a branch of science, which deals with numbers and their operations. It involves calculation, computation, solving of problems etc. Its dictionary meaning states that, 'Mathematics is the science of numbers and space' or 'Mathematics is the science of measurement, quantity and magnitude'. It is exact, precise, systematic and a logical subject.

Mathematics is the subject where answers can definitely be marked right or wrong, either in the classroom or at the research level. Mathematics is the subject where statements are capable in principle of being proved or disproved, and where proof or disproof bring unanimous agreement by all qualified experts all who understand the concepts and methods involved.

Reasoning about mental objects (concepts, ideas) that compels assent (on the part of everyone who understands the concepts involved) is what we call "mathematical". This is what is meant by "mathematical certainty". It does not imply infallibility!

History shows that the concepts about which we reason with such conviction have sometimes surprised us on closer acquaintance, and forced us to re-examine and improve our reasoning.

The old standard dictionary definition of mathematics was something like, "the study of the properties of numbers and geometrical figures." This was good enough up to some time in the 19th century. But today



mathematics includes abstract algebra, logic, and probability, none of which is part of traditional arithmetic or geometry.

What distinguishes mathematics from other sciences, whether physical, biological, or socio-cultural? The other sciences study some concrete objects, which are visible, ponderable or detectable by physical apparatus. The things mathematics studies are neither visible nor ponderable nor detectable by physical apparatus. On the other hand, what distinguishes mathematics from philosophy, literary criticism, legal theory or economic theory, where shared concepts are the subject of study? In those fields, we find argument and reasoning about abstract entities, but usually it can not be conclusive. Usually it leaves room for continuing unresolved dispute and disagreement. If, in some field of abstract thought, such as linguistics for example, concepts do arise which lend themselves to conclusive and decisive reasoning, that field is then characterized as “mathematical”, and we have “mathematical linguistics.”

Certainly mathematics itself isn't the only place where conclusive reasoning occurs! Rigorous reasoning can occur anywhere--in law, in textual analysis of literature, and in ordinary daily life apart from academics. Historians can use unimpeachable reasoning to establish a sequence of events, or to refute anachronistic claims. But although historical dates are subject to rigorous reasoning, they are not mathematical objects, because they are tied to specific places and persons. Information about them comes, ultimately, from someone's visual or auditory perceptions.

What about “applied mathematics”?

Applied mathematics uses whatever arguments and methods it can--analogy, special examples, numerical approximations, physical models to learn about hurricanes, say, or epidemics. It is mathematical activity, to the extent that it makes use of mathematical concepts and results, which are, by definition, concepts and results capable of strict mathematical reasoning rigorous proof. Mathematical activity or behavior includes: thinking, wondering, dreaming, learning about mathematics; solving math problems, at all levels, from pre-kindergarten up through postdocs and Fields Prize winners; and teaching mathematics, at all levels. (If it isn't, then we'd call it bad teaching.) It includes ordinary commercial calculations too, and routine plugging of numbers into formulas by engineers and technicians. And geometrical reasoning, and probabilistic reasoning, and combinatorial reasoning, and any formal logical reasoning.

All the way back to the mathematical behavior of the Maya calendar makers, and the ancient Polynesian navigators.

Role of Mathematics in the Development of Education System:

In education system, mathematics plays an important role in shaping the future probability of young people. Education is to develop an individual, self-reliant, wise, a social contributor and in our education system. Almost every subject, we study in school and university; we need to study mathematics too e.g., Physics, Chemistry, Life-Science, Economics, Business and Accountancy, Geography, History, Psychology, Architect, Designing, Computes, Statistics, Commerce etc. Also in vocational areas like Tailoring, Cooking, Beauticians, Sportsperson, Farming etc., mathematical knowledge is needed. Even the professions like, Conductor, Shop Keeper, Drivers, Musicians, Magicians, Cashiers etc. use basic mathematical concepts.

What is lifelong learning?

Lifelong learning is the broad term for education that is conducted beyond school.

Therefore it's voluntary, rather than compulsory, and is completely self-motivated – with the main goal being to improve personal or professional development.



Not all learning comes in the classroom

There are many different ways to carry on your education – whether it's by taking a course, or continuing your personal development in a less formal setting. And it doesn't necessarily have to come at a cost.

To help you see which options are open to you, here's everything you need to know about lifelong learning:

How is it learned?

Lifelong learning can be conducted in a variety of different ways, whether it's through formal training, or something far less structured.

It can be taken through instruction or coaching, but the term also includes any form of self-taught learning.

Even our daily interactions with our colleagues, and the knowledge and behaviours we learn both inside and outside of work, can be classified as lifelong learning.

What are some examples of lifelong learning?

Because it's such a broad term, there are many different ways you could continue adding to your knowledge.

Some examples of lifelong learning include:

- Internships and apprenticeships
- Vocational courses
- Teaching yourself a new language
- Studying a new subject
- Learning to use new pieces of technology
- Playing a new game or sport
- Adding to your skillset during employment
- Gaining knowledge and learned behaviours from your environment

However, this is by no means an extensive list – and any attempts to actively build your skills will generally fall under the category of lifelong learning.

What are the benefits of lifelong learning?

There are a number of advantages to this form of studying. Including:

- To gain a new qualification
- To add to your transferable skills
- To increase your employability and promotion prospects
- To earn more money
- To fill a skills gap
- To broaden your knowledge
- To better contribute to the community
- Mental stimulation
- Personal and professional satisfaction

Why is it important?

As workplaces become increasingly diverse and complex, more and more employers are realising that formal qualifications aren't the only way to identify desirable staff.

The knowledge gained through previous experience, as well as any skills which have been self-taught or learned along the way, could greatly benefit the business.



Lifelong learning also ensure their employees continue to develop, and shows their desire to grow on a professional level.

Tips for lifelong learning

If you're considering continuing your education but you're not sure where to start, here are some of top tips:
Utilise technology. Whatever subject you're interested in, there are a wealth of online resources out there to help you learn. Listen to podcasts, download eBooks, take a distance learning course or join forums to continue your development.

Ask your employer — If you're already in work, ask your employer to help you with personal development planning. Chances are they already offer a lot of training internally, and may even subsidise the cost of a new certification if it helps add value to the business.

Stay motivated – Because this form of learning is completely voluntary, it will often require self-motivation and dedication to stay focused. Offer yourself incentives to keep going, or ask a friend or family member to help you stay on track.

Add some structure —Try setting aside the same amount of time for studying each night, or each week, make sure you stick to it, and try and write down a goal for each session. Take your learning seriously, and you're far more likely to stick to it.

Take every opportunity – It isn't just a new certification you can gain from lifelong learning. There are plenty of opportunities out there to add to your knowledge, from taking a class in the local community centre, to joining reading groups or even watching webinars.

Don't make excuses – Finally, there are no barriers to lifelong learning. Free courses are out there in everything from accountancy and business management through to marketing, coding and tech. And there's nothing stopping you simply picking up a book and learning about a new subject. So, no matter how young or old you are, and no matter how much time you have, there's something out there for you.

Method

In the taken study, a Leontief method has been used effectively. Assume that an economy consists of n interdependent industries (or sectors) $s_1, s_2, \dots, s_n$. Each industry will consume some of the goods produced by the other industries, including itself (for example, a power-generating plant uses some of its own power for production). An economy is called closed if it satisfies its own needs; that is, no goods leave or enter the system. We make the following conventions:

- (i) p_i is the production level of industry s_i ,
- (ii) $a_{i,j}$ is the number of units produced by industry s_i that is necessary to produce one unit by industry s_j ,
- (iii) $a_{i,j} p_j$ is the number of units produced by industry s_i and consumed by industry s_j ,
- (iv) $a_{i,1} p_1 + a_{i,2} p_2 + a_{i,3} p_3 + \dots + a_{i,n} p_n$ is the total number of units produced by industry s_i .

Since the economy is closed, the total production for industry s_i equals it total consumption and we have the equations



$$a_{i,1} p_1 + a_{i,2} p_2 + a_{i,3} p_3 + \dots + a_{i,n} p_n = p_i$$

for $i = 1, 2, \dots, n$.

If the economy is balanced, the total production of each industry must be equal to its total consumption. This results in the linear system:

$$a_{1,1} p_1 + a_{1,2} p_2 + a_{1,3} p_3 + \dots + a_{1,n-1} p_{n-1} + a_{1,n} p_n = p_1$$

$$a_{2,1} p_1 + a_{2,2} p_2 + a_{2,3} p_3 + \dots + a_{2,n-1} p_{n-1} + a_{2,n} p_n = p_2$$

$$a_{3,1} p_1 + a_{3,2} p_2 + a_{3,3} p_3 + \dots + a_{3,n-1} p_{n-1} + a_{3,n} p_n = p_3$$

$$\vdots \quad \quad \quad \vdots \quad \quad \quad \vdots \quad \quad \quad \vdots \quad \quad \quad \vdots \quad \quad \quad \vdots$$

$$a_{n,1} p_1 + a_{n,2} p_2 + a_{n,3} p_3 + \dots + a_{n,n-1} p_{n-1} + a_{n,n} p_n = p_n$$

which can be written in matrix form

$$\mathbf{A} \mathbf{P} = \mathbf{P}.$$

The matrix $\mathbf{A}$ is called the input-output matrix, and $\mathbf{P}$ is the production vector.

Findings

Leontief model:

The mathematics model for the economy of a country or a region is based on the various sectors of this economy. The Leontief model addresses this problem. Assume that each industry in the economy has two types of demands: an external demand (from outside the system) and an internal demand (demand placed on one industry by another in the same system), the Leontief model is a system of linear equations. The Leontief model was invented in the 30's by Wassily Leontief who developed an economic model of the United States economy by dividing it into 500 economic sectors. Wassily Leontief received the economics Nobel Prize on October 18, 1973.

Suppose an economy consist of Coal, Electric and Steel sectors, and the output of each sector is distributed among the various sectors as shown in the table below, where the entries in a column represent the fractional parts of a sectors total output.

Table 1. A simple economy.Distribution of Output from

Coal	Electric	Steel	Purchased by
0.0	0.3	0.5	Coal
0.6	0.2	0.2	Electric
0.4	0.5	0.3	Steel

In the third row of the table says that Steel needs 40% of the Coal output, 50% of Electric output, and 30% of the Steel output. If we let p_C , p_E , and p_S represent the output of each sector then Steel needs $0.4 p_C$ Coal, $0.5 p_E$ Electricity, and $0.2 p_S$ Steel.

We can say that



$$\begin{cases} p_s = 0.4p_c + 0.5p_e + 0.3p_s & -p_c + 0.3p_e + 0.5p_s = 0 \\ p_c = & 0.3p_e + 0.5p_s \Rightarrow 0.4p_c + 0.5p_e - 0.7p_s = 0 \\ p_e = 0.6p_c + 0.2p_e + 0.2p_s & 0.6p_c - 0.8p_e + 0.2p_s = 0 \end{cases}$$

$$\begin{bmatrix} 1 & -0.3 & -0.5 & 0 \\ 0.6 & -0.8 & 0.2 & 0 \\ 0.4 & 0.5 & -0.7 & 0 \end{bmatrix} \Rightarrow \begin{bmatrix} 1 & 0 & -\frac{23}{31} & 0 \\ 0 & 1 & -\frac{25}{31} & 0 \\ 0 & 0 & 0 & 0 \end{bmatrix} \Rightarrow \begin{bmatrix} 1 & 0 & -0.74 & 0 \\ 0 & 1 & -0.81 & 0 \\ 0 & 0 & 0 & 0 \end{bmatrix} \Rightarrow \begin{cases} p_c = 0.74p_s \\ p_e = 0.81p_s \\ p_s = \text{free} \end{cases}$$

This implies that the equilibrium production level are that Coal must produce 74% of what Steel produces and Electricity must produce 81% what Steel produced.

Results, Conclusions and Recommendations

In this article, the importance of mathematics on the economy is investigated. An example of Leontief model is analyzed. And as a results are obtained.

Mathematics is central importance of modern society. It provides the vital underpinning of the knowledge of economy. Mathematics forms the basis of most scientific and industrial research and development. Increasingly, many complex systems and structures in the modern world can be only understood using mathematics and much of the design and control of high-technology systems depend on mathematical inputs and outputs.

Economics of the society is developed by establishment of industries. The applied mathematics like computational science, applied analysis, optimization, differential equation, data analysis and discrete mathematics etc. are essential in industrial field. By application of mathematical methods, the exploration cost of oil and communication cost of images could be reduced.

Analysis and study in economics help explain the interdependent relation between different variables. They try to explain what causes rise in prices or unemployment or inflation. Mathematical functions are modes through which these real life phenomena are made more understandable and logical.

References

- Ashlock, R.B. and Herman Jr. W.L, *Current Research in Elementary School Mathematics*, New York: Macmillan, 1970.
- James.Anice, *Teaching of Mathematics*, Neelkamal Publication Pvt. Ltd. Hyderabad
- Kulshishtha, A.K. *Teaching of Mathematics*, R. Lall Book Depot, Meerut-250001
- Miglani,R.K. & Singh, D.P. *Teaching of Mathematics At Elementary Level Part I & Part II*, Arya Book Depot Karol Bagh, New Delhi-110005
- National Curriculum Framework 2005 (NCF-2005)-A Paradigm Shift-Mathematics (2005)*; NCERT publications, New Delhi
- NCERT, New Delhi, *Pedagogy of Mathematics, Textbook for Two-Year B.Ed. Course*
- Roy Hollands (1990) *Development of Mathematical Skills* Blackwell Publishers, Oxford, London
- Skemp,R.R., *The Psychology of Learning Mathematics*, Hatmondsworth: Penguin Books, 1971.



Thomas A. Son nabend (1993) Mathematics for Elementary Teachers (An Interactive Approach), HBJ Publishers, Florida
https://www.google.com/search?ei=L1U7XZmqL8Wb1fAPgs6S8A4&q=what+is+mathematics+doc&oq=what+is+mathematics+doc&gs_l=psy-ab.3..0l2j0i22i30l8.1193.3232..3400...0.0..0.895.1271.0j2j6-1.....0....1..gws-wiz.....0i71j0i67.s36JQW_7qK0&ved=0ahUKEwjZ_eDEqdPjAhXFTRUIHQKnBO4Q4dUDCAo&uact=5
<https://www.reed.co.uk/career-advice/what-is-lifelong-learning/>
<https://owlcation.com/social-sciences/Use-of-Mathematics-in-Economics>
<https://www.maa.org/press/ebooks/applications-of-mathematics-in-economics>
http://www.ncert.nic.in/pdf_files/Final-Article_Role%20of%20Mathematics%20in%20the%20Development%20ofSociety-NCER-.pdf
<http://mathfaculty.fullerton.edu/mathews/n2003/LeontiefModelMod.html>



The Role of International Standards for Risk Management to Ensure High Quality at Enterprises

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Abstract

It is important that the products produced in modern times meet the quality and safety requirements. The implementation of these requirements is possible by taking precautionary measures into consideration and risk management that may appear at any point during the production process. Disregarding risks in any activity significantly reduces the competitiveness of the enterprise and the quality of the process and product. In world practice, many advanced companies have achieved profit and high quality products through a systematic implementation of the risk management process and then smaller companies gradually began to take advantage of their experience. The world's two most widely used International risk management standards are HACCP system and ISO 31000. High quality and competitiveness of the product depends on implementing requirements of these standards. Establishing a risk management system in enterprise and identifying potential risks minimizes losses, increasing profits and achieving high quality products with lower cost value.

Keywords: risk management, International Standards, requirements, quality

Introduction

As the requirements for products of today's production are very high, it is also crucial that they meet both quality and safety requirements. The meeting of these requirements is possible by managing of risks that arise before the manufacturing process and that occur during the production process. To date, various international organizations from several leading countries have developed a number of international standard projects that allow the to make significant progress in assessing the potential risks in production, economy, construction, medicine and many other areas, by minimizing or eliminating their potential negative impacts. The risk management process and the broad disclosure of this approach are included in the requirements of these standards.

The process of Risk management is a comprehensive, extensive and important process. The implementation of this process should comply with the requirements of relevant regulatory and technical documents, each stage must be regularly documented, based on a predetermined plan, and all changes should be noted. Thus, these notes prevent the loss of time during the relevant assessments. Numerous standard projects, guidelines and regulatory and technical documents covering the risk management process have been implemented in various parts of the world so far. It may be an example of AS / NZS 4360: 2004 – in Australia and New Zealand, CSA Q 850: 1997 - in Canada, JIS Q 2001: 2001 - in Japan [1], [4], [12] . Later, these standards have been summarized and a single standard was prepared from those standards and applied in the food industry. It was HACCP system principles and nowadays these principles and ISO 31000 are the most widely used standards in riks management field.

These standards envisage taking appropriate measures to identify, assess, and eliminate the existing risks. Standard requirements also include early warning of potential risks and preparation of a precautionary plan in case of appearing new risks.



To ensure the effectiveness of the risk management process in any field of action, it is necessary to pay attention to the following four questions of general character:

1. *What can happen?* Specific attention is paid to the detection of potential risk when examining the answer to the question.
2. *What is so important?* (evaluation). Depending on the outcome of the first question, management should make assessments and make decisions about whether the various outcomes are desirable or unwelcome.
3. *What can be done?* (action). As a next step, management should prepare a plan for managing potential risk in one or another way, minimizing risk, and avoiding risk. In some cases, it is also important to have a reserve plan that can be applied during an unexpected event.
4. *What happened?* (analysis). At this stage, the management should determine whether the expected effects have been achieved by analyzing the outcomes of the work already done and whether there is a need for additional changes. All of these should be accompanied by an effective exchange of information with those who may be in danger of risk and may be able to assist in the fight against risks.

The application of the risk management system in enterprises and organizations and registration and maintenance of records of this process has the following advantages:

- arranging assessment of risk-related approaches within the organization;
- revealing the strengths and weaknesses of the organization's risk management system in terms of standards;
- developing key documents for the corporate risk management system;
- preparation for risk management process and reducing costs for the process;
- making appropriate changes to the organizational structure;
- avoid the negative consequences of possible risks, fully or partially.

Overall, risk descriptions of general risk indicators in risk management system are given in Table 1.

Table 1. Description of the risk management in the risk management system.

1.	Risk name	Risk determination
2.	Risk area	Description of events, dimensions, types, quantities and impact areas
3.	Type of risk	Strategic, operational, financial information, compliance with legislation
4.	Interested parties	Interesting parties and their expectations
5.	The amount of risk	Importance, probability, results
6.	Suitability of the risk	Possible losses and their material costs
7.	Risk management and control mechanisms	Value of risk
8.	Opportunities for improvement	The risk management objectives and the desired level of performance of the assigned tasks at any level
9.	Strategic and management changes	Existing methods / experience of risk management

Regardless of the area of activity, production volume and size, enterprises and organizations set specific objectives and goals when they start operating. when it commences. The effects of internal and external factors that prevent them from determining how and when they achieve they goals and objectives they value are assessed as "risk." Businesses and organizations can only make this objective more realistic by taking into consideration the risks that may affect the outcome on the road to that end. The concept of "risk management" is



used to avoid the risk of negative impacts or to eliminate them. Risk management covers all processes related to risk identification, assessment and decision making, risk reduction or pre-requisite review, as well as monitoring and analysis, communication and consultation.

Risk management is important for businesses and organizations, and this process should be carried out step by step in a systematic way. The main purpose here is to completely or partly avoid the negative effects of risks to the organization and its image, the quality of its products, the position of the product in the local and foreign markets and the health of consumers of these products.

In order to implement the risk management process, activities such as establishing a risk management system in enterprises and identifying potential risks, preparing the necessary documents and procedures, taking into account the estimated risks and implementation of a reserve and corrective action plan are applied. Here, also, the quality of

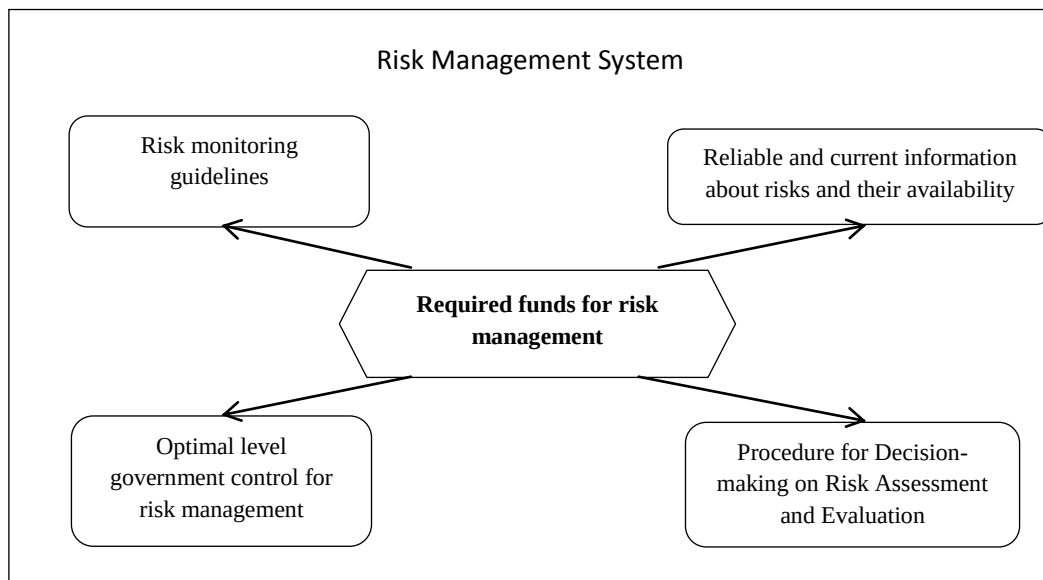


Figure 1: Risk Management System and The funds required for this process

the risk management process itself is measured on a regular basis, and the negative aspects of the process (if any) are corrected. The main purpose of the risk management in the enterprise is to minimize losses, ensure the safety of the work process and maximize the revenue. The list of funds required for risk management in enterprises and organizations is given in Figure 1.

1. International Standards and Risk Management

A number of standard projects have been developed by international organizations that make significant progress in managing the risks in production, economy, education, transportation, medicine, and many other areas. Gradually, these projects have been tested and implemented by different enterprises, and the problems have been solved and projects have been improved. These normative documents have been renewed over time and new versions have been widely used in modern times. The HACCP principles of the above-mentioned standards are used only for the management of risks that may arise in every area of human activity, including the production of food products, and the ISO 31000 standard for food production. Some countries have drafted and implemented number of standard projects that was prepared by harmonizing national standards with some of these international standards. [9] - [12]



The requirements of International standards for risk management indicate that regular monitoring is the most important action to ensure that the processing plan is consistent and adequate. Each stage of the risk management process, including the proposals applicable methods, data sources, analyzes, results and reasons for the decisions taken must be documented and noted. [14]

1.1. HACCP system principles

The main principle of applying the HACCP (Hazard Analysis and Critical Control Points) system is to conduct a thorough analysis of risks and to identify critical control points. The application of the elements of this system in the

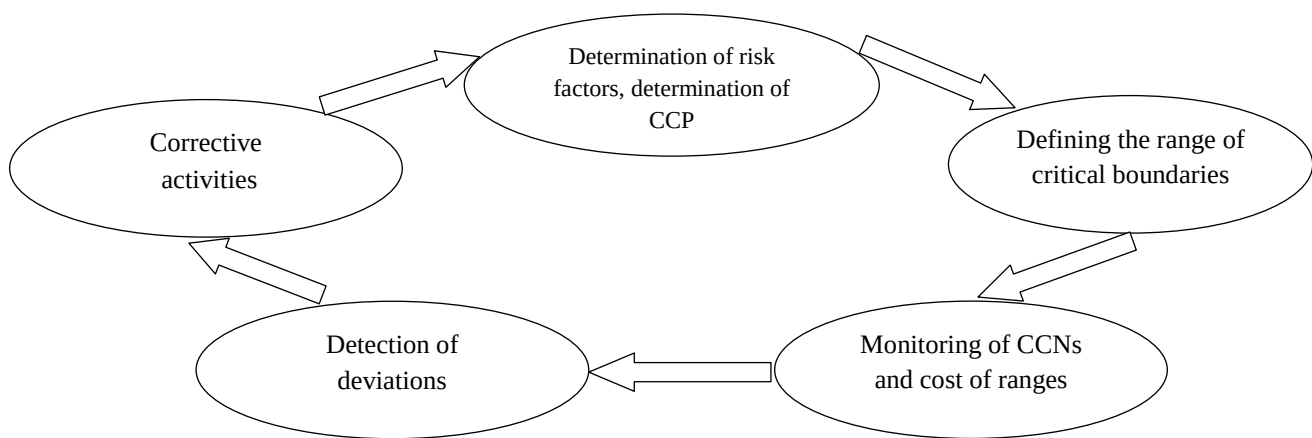
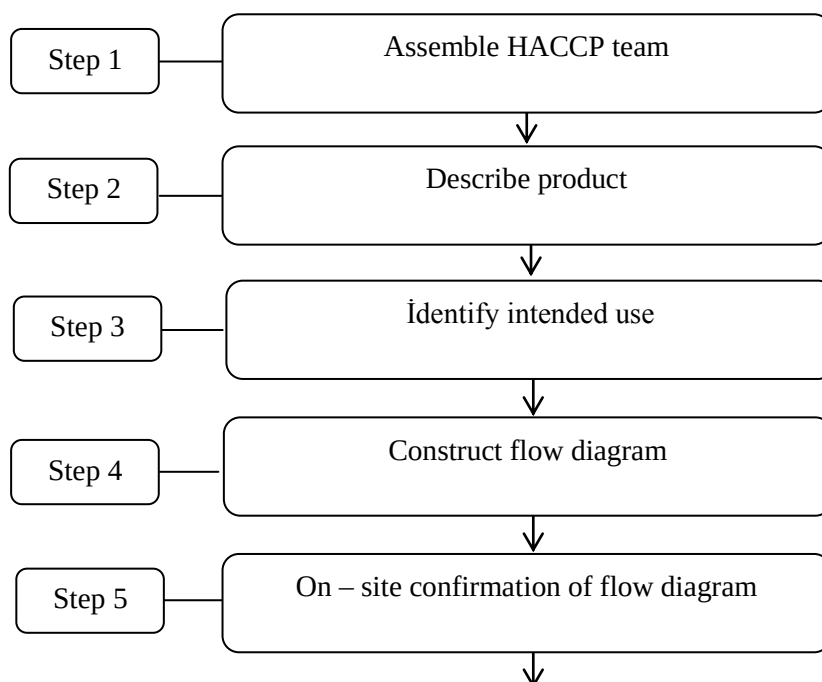


Figure 2. Periodic scheme of risk management, based on the principles of the HACCP system

production envisages control of the risk at any point in the production activity and the implementation of the necessary measures. HACCP is a food safety management and risk management system, primarily a warning system that systematically detects, evaluates and controls potentially hazardous factors that may arise during production [5]. These factors are biological, chemical and physical risks.



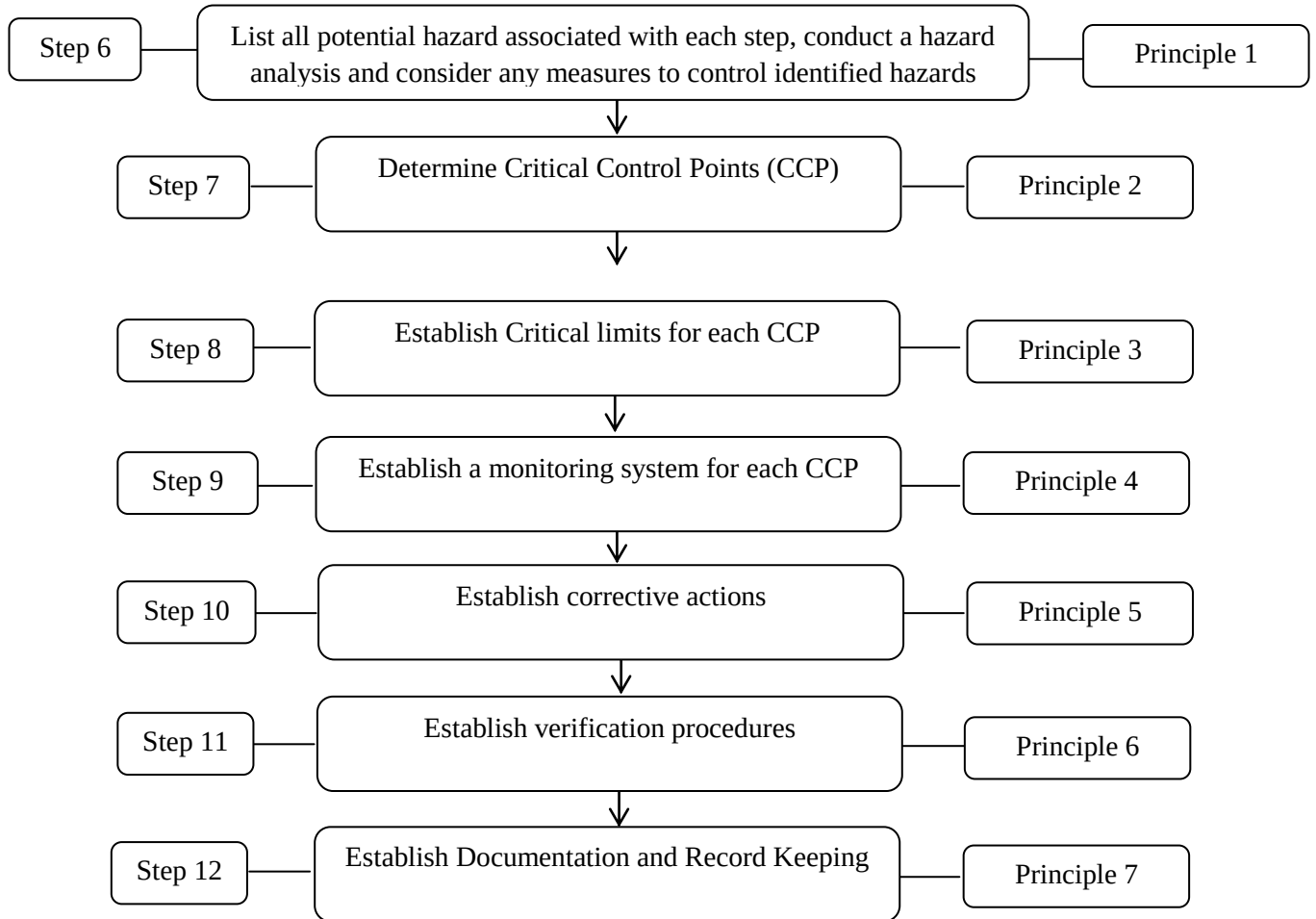


Figure 4. Stages of application of the HACCP system and its 7 principles

For the first time, the HACCP system was designed to provide safe nutrition for astronauts in NASA in the United States in 1960 [11]. The principles of the system that self-sustained in this field have gradually been studied and applied by ordinary manufacturers acting in different countries over the world. The principles of the HACCP system are designed exclusively for food manufacturers and so far, many researchers have conducted assessments before and after the system's application to determine the benefits of its application. The results are almost identical: the application of the HACCP system elements ensures the safety of foodstuffs, the protection of consumers' health, and the control of critical control points by monitoring the entire production cycle of produced products.

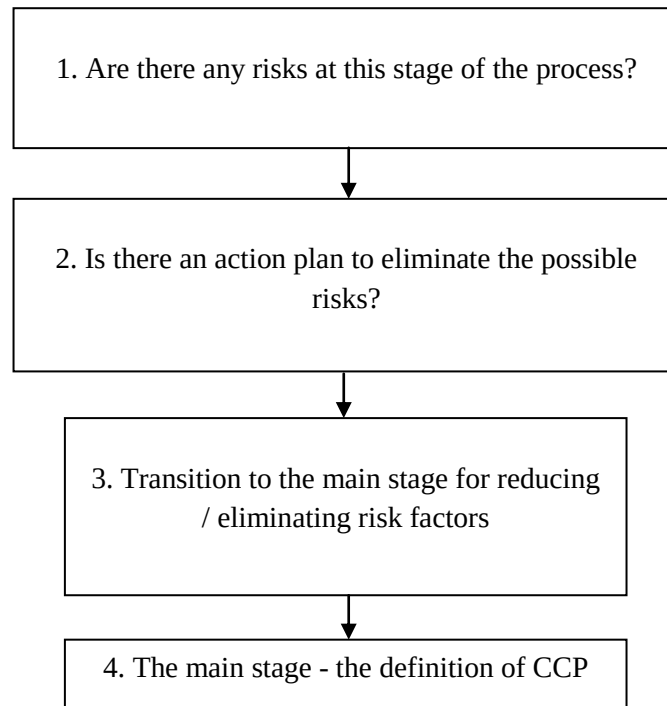


Figure 3. The sequence of Critical Control Points (CCN) assignment

The main objective of the HACCP system implementation is to provide a high-quality product, to provide comprehensive security controls that ensure safety in all the rings of the food chain, and educate personnel involved in this process through training. This system has emerged as a result of systematization of pre-existing world-class safety requirements and has been widely used by leading countries, many secular alliances, and have been widely used [4]. The HACPP system also requires proper documentation of all processes, renewal of documents, accessibility for everyone, training of employees and management involved in training. For the introduction of the HACCP system, manufacturers should not only research their products and production methods, but also apply this system and its requirements to raw materials suppliers, supporting materials, and wholesale and retail trade systems.

1.2. ISO 31000 standard

ISO 31000: 2009 The "Risk Management, Guidelines and Guidance" standard includes the principles and comprehensive requirements for managing potential and existing risks including the indirect healthcare industry, so as to minimize their negative impact on the outcome (Figure 5). This standard was developed by the ISO Technical Guidance Group [3]. Although this standard provides generalized guidance, it is not intended to ensure uniformity of risk management across all organizations. When creating and implementing plans for infrastructure risk management should take into account the different needs of a particular organization, its particular objectives, situation (context), structure, operations, processes, functions, projects, products, services, or assets and specific practices adopted In the organisation.

Untill the end of 2015, national standards bodies in 57 different countries adopted ISO 31000 as a national standard for the risk management in their country. ISO 31000 is broadly accepted by many public and private companies, government owned, nonprofits, different charitable organizations and as the standard is not specific for any field of activity the list of its implementing by organizations and enterprises is quite large. Nowadays 2018 version is available and the main changes from first edition is given in figure 4. And while ISO was



developing the 2018 version of this standard, was received over 5000 comments from over seventy countries [16].

A working group organized by ISO reviewed the existing normative and technical documentation as well as the best practices of New Zealand, Canada, Australia and other countries. Summarized by defining effective areas of work in the field of risk management. Thus, a new architecture was created that was ISO 31000, the latest terminology that has always been updated, and the necessary work has been done to ensure that the requirements of this standard should be applied to different cultures, enterprises and languages as easily as possible [8].

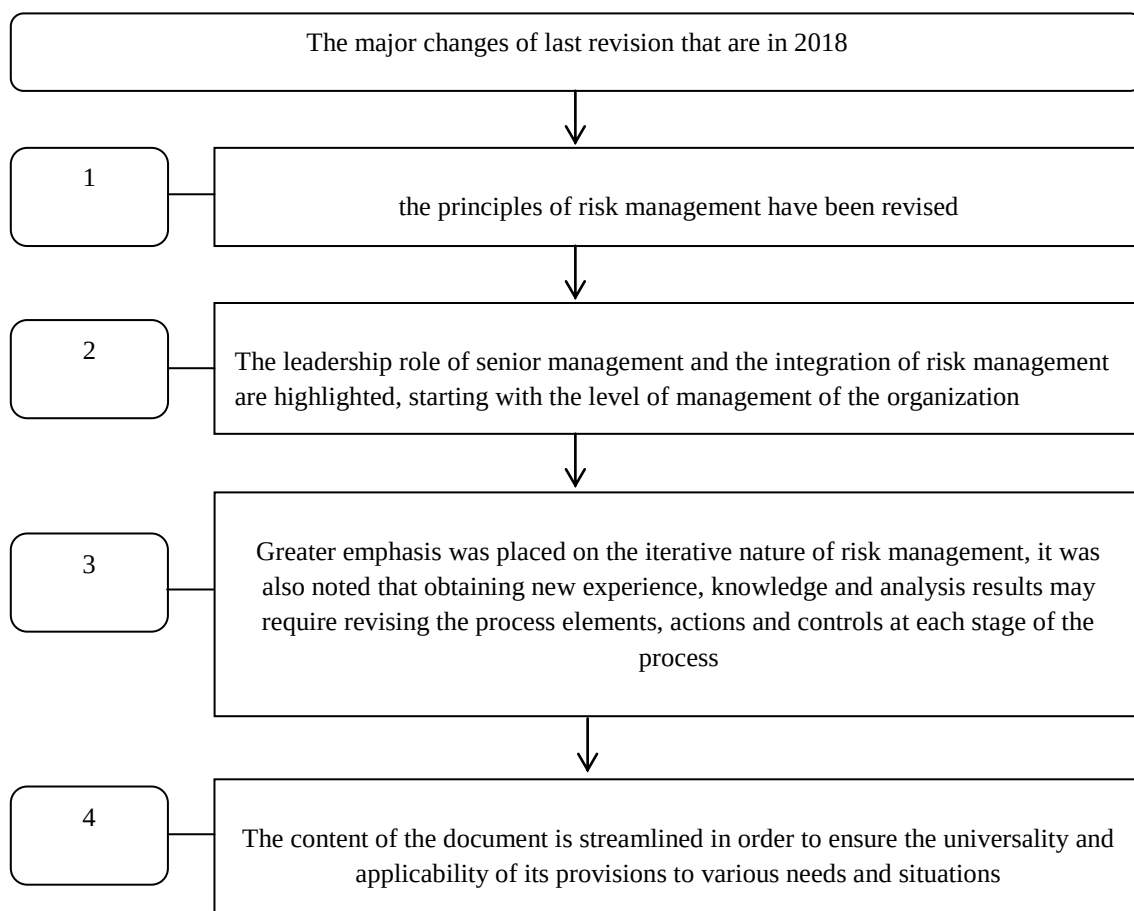


Figure 3. The main changes of 2018 version of ISO 31000 standard

ISO 31000 is the first international standard of risk management practice and was first published in 2009. The draft standard has been recognized as an internationally recognized document, with its very easy implementation rules and requirements, as well as examples of best practices in the field of risk management. The Working Group has developed ISO 31004 - Technical Presentation to facilitate the application of the standard in various enterprises and organizations. The ISO 31000 standard, as well as other ISO standards, is revised every 5 years, and in the context of the requirements can be reviewed and necessary changes in the new version are offered.

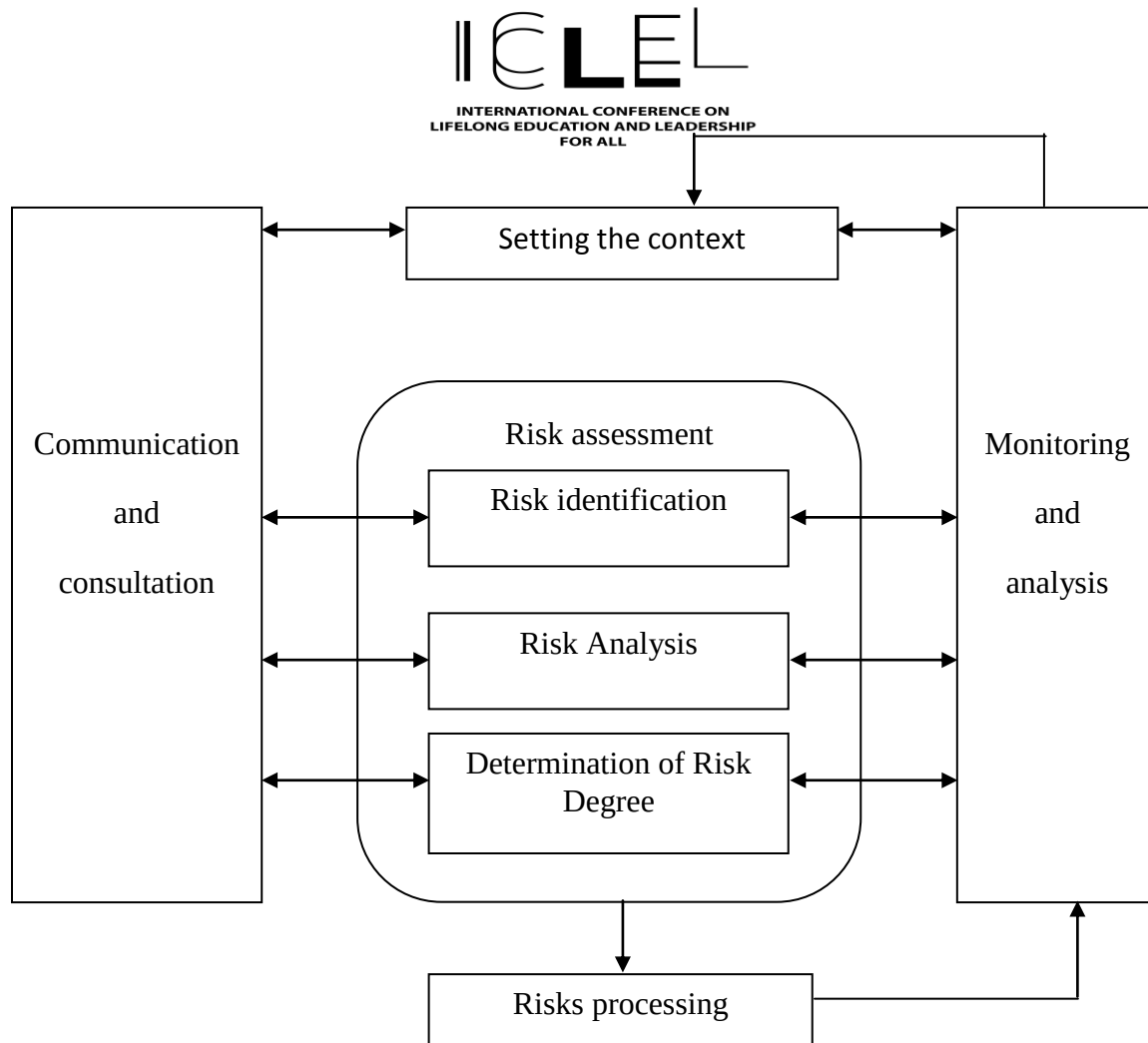


Figure 4. Risk management process at the enterprise according to ISO 31000: 2009 standard

The risk management process in enterprises and organizations is carried out according to the requirements of ISO 31000: 2009 standard [7]. Keeping contacts with internal and external stakeholders and arranging consultations are essential at all stages of risk management. Therefore, plans for communication and consultation should still be developed at the first stage of implementation of the standard, ie at the planning stage. This plan should cover direct risks, their nature, impact rate, their causes, and, if known, the measures taken to remedy such risks. When building a context, the organization explicitly identifies its objectives, identifies internal and external factors that will be taken into account when managing risks, and chooses the scope and criteria for the risk exposure for the remaining processes. Although many of these parameters have been considered during the risk management concept development, they should be re-examined during the context of the context and how they should affect the management process in any particular risk area.

There are some factors that hinder the effective risk assessment when creating a risk assessment system for risk management: it is important to overcome these barriers to properly arranging the risk management process and to properly evaluate the risk. These barriers are given at table 2.

Table 2. Risk barriers [ISO 31000:2009 — Principles and Guidelines on Implementation. 2009.]

1	The absence of planning
2	Limited resources
3	If the planning is designed for a short period of time
4	Lack of high quality actual information
5	Absence of qualified personnel, experience and resources at the enterprise
6	The difficulty of accurately evaluating risks and opportunities and achieving a rational balance between



them

7 Fear of innovation failure

8 In some cases, political concerns related to the need for open risk acceptance

Many of these factors operate simultaneously and in unity. These obstacles indicate the need for adequate and timely risk assessment and formulate a database of information that decision makers and their advisors have the information they need and also create an organization's culture and incentive that ensures that the risk is well thought out.

The organization should identify the source of risk, its impact areas, risk situations, causes, as well as their potential outcomes before commencing work. For this purpose, risk identification should be undertaken, which is to compile a complete list of risks that the organization can achieve to achieve the desired outcome. It is also important to identify the risks associated with lost opportunities. Also, full identification is very important, as if at this stage there is an unequal risk, it will not be included in the analysis at a later stage. And thus, there is a potential risk of future risk. Identification should cover all risks, even if the source of the risk is unknown. It does not matter if the source of the risk is under the control of an entity.

Employees with relevant knowledge in risk identification should be involved in the risk identification process. Understanding it is crucial to the risk analysis. Risk analysis ensures that decisions are made on different types and levels, particularly those related to choice. Risk analysis incorporates the causes and sources of risk, its positive and negative consequences and the likelihood of these consequences. Also, existing management methods, their effectiveness and adequacy should be kept in focus. Factors such as overlapping of experts' opinions, constant reliability and regularity of information, and restrictions in modeling should be clearly formulated and put to the forefront.

The purpose of the risk assessment is joint action when making decisions based on the results of the risk analysis that is important. Determination of the degree of risk involves the comparison of the criteria of the degree of risk found in the risk analysis process with the criteria set out in the context of the context. The importance of processing is reviewed on the basis of such comparisons. Decisions should be made in accordance with legislation of country and relevant regulatory requirements. In some cases, the risk assessment results indicate that additional valuation is essential. Stages of the risk treatment process are shown in Table 3 in sequence.

Table 3. Stages of the risk treatment process in accordance with the requirements of the ISO 31000 standard

1	Evaluation of risk processing
2	Adopting a decision on the availability of existing risk
3	Application of new generation processing techniques, if risk is not acceptable
4	Evaluating the effectiveness of processing

A risk treatment plan is prepared for risk treatment purposes. The objective of risk treatment plans is to document how the selected processing method will be applied.

Risk management is an integral and important part of the overall good governance of the organization. Based on ISO 31000 standard requirements, the following 10 principles are proposed for ensuring effective risk management:

1	The organization should be careful about the risk management process
2	Risk management should be closely interconnected with organizational management
3	Responsibility for risk management should also be closely related to strategic management



-
- 4 The integrity of the approaches should be ensured. The risk management should be considered during the selection of the benefits and the distribution of revenue, and the decision making should be integrated both at the employee and the strategic level.
 - 5 Risk management is a catalyst for changes in the organization's culture. Effective risk management has an inevitable effect on the organization, creating a favorable environment for communication, culture, leadership and innovation, which is essential for the economic growth of the organization.
 - 6 Risk management is a non-static, dynamic, continuous process. The risk management process is aimed at achieving the organization's goals. When the goals are changed, the risk management process is also changed.
 - 7 Risk management should be systematic, consistent and proportional to the level of risk.
 - 8 Risk management should be a serious process that meets the expectations of decision-makers and stakeholders based on internal or external context, adapted to the organization's strategic goals or needs of any project.
 - 9 Risk management should be a justified decision. Risk management should ensure that all objective factors of the risk are reviewed.
 - 10 Risk management should be a transparent process.
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Method

In this research, the international standards applied to risk management, their application processes, and the benefits obtained from the application of these standards have been studied. Also, were reviewed researchs on the implementation of international risk management standards of different researches from various countries. The results of different studies have been compared and conclusions have been made.

Findings

The manufacturer of the ISO 31000 standard gets a guarantees for the quality of the product, regardless of the production volume and the type of product he/ she is accustomed to. And most importantly, the high quality products obtained by the requirements of international standards do not require large amounts of material facilities and resources. And here the number of losses and disadvantages is at a minimum level.

Any manufacturer who applies and maintains the HACCP systems principles is able to evade from 5 from dangerous factors that are shown in table 4.

Table 4. Hazardous factors that Enterprises can be prevented by applying the HACCP system

1	The application of a wide range of potentially hazardous materials
	Chemical
	Biological
2	3 types of risk
	Physical
3	Endangering human health
4	Waste of financial resources
5	Losses that may result from improper or incorrect production



Results, Conclusions and Recommendations

The researchers used the elements of the principles of the HACCP system at the University cafeteria, provided staff with training, and organized microbiological tests to identify the bacterial content of 894 samples. Consequently, harmful microbiological bacteria and organisms have not been identified in the samples taken from them and the researchers emphasized the importance of the application of this system and the importance of organizing trainings [6]. Another group of researchers from Turkey conducted a research on the quality of the food at the hospital, the views of patients who eat these dishes, and the testing of samples. In the study, 466 patients were evaluated before and after the HACCP system, evaluating 74.7, and later, 81.3.

Establishing and applying a risk management system that meets international standards for risk management protects the production process from the risks of the risks, low product quality and high quality. In this regard, taking into consideration the requirements of world-class standard projects and the application of these standards directly to the production process, which are tested during the risk management process, make the risk management process more efficient.

Thus, given the fact that the risk management process has been applied to many important areas of high risk, which can directly affect the health of people and the environment, we clearly see the importance of this process based on the requirements of international standard technical documents - standard projects.

References

- AS/NZS 4360:2004 "RISK MANAGEMENT", Avstraliya və yeni Zelandiya.
- Аршакуни, В. Л. От системы ХАССП – к системе менеджмента безопасности пищевой продукции по ИСО 22000 // Стандарты и качество. – 2008. – № 2. – С. 88–89.
- B.T. Cenci-Goga, R. Ortenzi E. Bartocci A. Codega De Oliveira F. Clementi A. Vizzani, "Effect of the Implementation of HACCP on the Microbiological Quality of Meals at a University Restaurant"
- CSA Q 850:1997 "RISKMANAGEMENT GUIDELINES FOR DECISION MAKERS", Canada.
- Dorothy Gjerdrum. A Brief History of ISO 31000 – and Why It Matters. (<https://riskandinsurance.com/a-brief-history-of-iso-31000-and-why-it-matters>)
- https://en.wikipedia.org/wiki/Hazard_analysis_and_critical_control_points
- <https://www.erminsightsbycarol.com/iso-31000-vs-coso>
- <https://www.iso.org/home.html>. 2018. International Organization for Standardization.
- ISO 31000:2009 "RISK MANAGEMENT – PRINCIPLES AND GUIDELINES".
- ISO GUIDE 73:2009 "RISK MANAGEMENT – VOCABULARY".
- ISO 31000: 2009 — Principles and Guidelines on Implementation. 2009.
- JIS Q 2001:2001 "GUIDELINES FOR DEVELOPMENT AND IMPLEMENTATION"
- Patients Satisfaction Level Before and After HACCP/ISO 22000 Implementations to Food and Food service in University Hospital, Ankara, Turkey. D. Dikmen, M.F. Uyar, Mevlude Kizil, M. Tengilimoglu
- ГОСТ Р 51705.1 — 2001 Системы качества. Управление качеством пищевых продуктов на основе принципов ХАССП. Общие требования. Область применения
- ГОСТ Р 56671-2015 «Рекомендации по разработке и внедрению процедур, основанных на принципах ХАССП»
- ГОСТ Р ИСО 31000 – 2010 «Менеджмент риска. Принципы и руководство»



The Case Study of the University Student Who Stutters

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Abstract

The aim of the paper is to introduce Filip, 24-years-old, male, with chronic stuttering. Filip has been suffering from stutter since the age of 4, i.e. for 20 years. He is a student of Digital and Device Optics at Faculty of Science, Palacky University in Olomouc, Czech Republic. Filip is a client of The Support Centre for Students with Special Needs at Palacky University due to stuttering. We have been realizing speech and language therapy (SLT) since November 2016. At the beginning of our SLT we diagnosed prolongations of vowels and consonants, repetitions of vowels, consonants and syllables, disturbed co-verbal behavior, i.e. missing visual contact, fear of communication, avoiding difficult words and situations, changing the word order in the sentence. During every SLT we discuss situations that are challenging for the client (for example expressing an idea to a teacher, raising the hand and giving the answer during lectures, giving a presentation, a situation where an immediate answer is required, buying a train/bus ticket etc.), we assess them and we rate their difficulty on a scale from 1 to 5 points (1 meaning the easiest and 5 meaning the most challenging). The author of the paper used a holistic therapy approach, Fluency Shaping Techniques as well as Stuttering Modification Therapy. The author also created numerous possibilities for Filip to speak about his stuttering before an audience made of students, speech and language therapists or university teachers and counsellors. The author suggested and assisted Filip with various street contacts that included primarily initiating a conversation with strangers. These situations used to be challenging for Filip to the point where he deliberately avoided them due to the fear of failure. Nowadays, Filip perceives his communication difficulties as less severe, he enjoys speaking, he does not avoid words, he does not change the word order in the sentence, he speaks a lot and he has been tutoring mathematics and English language to three pupils from primary school. Filip seeks opportunities to speak and does not avoid challenging situations.

Keywords: Stuttering, Fluency Shaping Therapy, Stuttering Modification Therapy

Introduction

The paper deals with a speech and language therapy case study of an university student Filip who stutters. The paper describes objectives, challenging communication situations, activities and outcomes of the speech and language therapy at student Filip as well as appropriate approaches to university students with stuttering. At the beginning it is useful to realize that no one is completely fluent. Diagnostic and Statistical Manual of Mental Disorders (DSM–5, 2013) explained stuttering, that is, disturbances in normal fluency and the time patterning of speech characterized by frequent occurrences of one or more of the following features: sound and syllable repetitions, sound prolongations, broken words (e.g. pauses within a word), audible or silent blocking, circumlocutions (word substitutions to avoid problematic words), words produced with an excess of physical tension, monosyllabic whole-word repetitions (e.g. „I-I-I I see him“).

The disturbance in fluency causes anxiety about speaking or limitations in effective communication, social participation, or academic or occupational performance, individually or in any combination. The onset is in the early developmental period (in the age from 2-7). The disturbance is not attributed to a speech-motor or sensory deficit, dysfluency associated with neurological insult (e.g. stroke, tumor, trauma), or other medical condition, and is not explained by another mental disorder (DSM–5, 2013).

Ward (2018) points out that approximately 1 per cent of the world's population stutters. The onset of stuttering usually occurs at preschool age, coincident with acquisition of language and motor speech skills. There is no single explaining why stuttering arises. There are a number of factors which appear to increase the likelihood



that stuttering will develop. A demands and capacities approach may be helpful to understand the heterogeneity associated with stuttering. We can observe different demands and capacities at each one, such as environmental influences: peer group pressure (reactions to nonfluency), insistence on perfect speech by adults; by the child, student himself/herself, increased rate of communication partner, time pressure, stressful speaking situations. On the other side there are different genetic predisposition to stuttering: neurological differences in brain function, child's ability to cope his nonfluency, anxiety (Ward, 2018).

Stuttering is a highly individual and complex condition that affects 5% of children and 1% of adults worldwide (Conture, 1996 in Everard & Howell, 2018). It is a neurodevelopmental condition that involves the many different brain systems involved in producing speech (Chang, Zhu, Choo, & Angstadt, 2015; Walsh, Mettel, & Smith, 2015 in Everard & Howell, 2018). There is growing evidence for a genetic component to stuttering (Kraft & Yairi, 2011), but the way genetics links to brain functioning and behavior has not yet been established (Howell, 2011). Typical stuttered speech behaviors are prolongations, blocking of sounds, and repetition of sounds and syllables. Although these behaviors are the most apparent aspects to a listener, often there are chronic psychological consequences of stuttering, revealed through client self-report (Blomgren, 2013; Plexico, Manning, & Levitt, 2009; Sheehan, 1970; Yaruss, 2010 in Everard & Howell, 2018). For instance, Corcoran and Stewart (1998 in Everard & Howell, 2018) interviewed eight people who stuttered and identified suffering from the effects of stuttering as the principal theme, with four major subelements (helplessness, shame, fear, and avoidance).

The study of Daniels, Panico & Sudholt (2011) explored the perceptions of university instructors toward stuttering and students who stutter, and their beliefs about classroom participation. Participants included 328 university instructors across a variety of disciplines at two Midwestern universities. Results indicated that increased knowledge of stuttering is associated with positive attitudes toward students who stutter. Moreover, the participants in this study expressed a need for more information about stuttering and ways to accommodate students who stutter in the classroom.

The study of University students' perceptions of the life effects of stuttering suggests that fluent speakers perceive person who stutters (PWS) as being disadvantaged. The limited research on this topic suggests that PWS do feel that they are disadvantaged by their stuttering in a variety of contexts, including academically, occupationally, and emotionally (Corcoran and Stewart, 1998, Klompas and Ross, 2004 in Hughes, Gabel, Irani & Schlagheck, 2010). It is also apparent that many fluent speakers believe that much of one's success in life is based on the ability to speak fluently. While it is not surprising that the participants indicated that stuttering can have negative consequences on the lives of PWS in general, these fluent speakers also tended to report that if they stuttered their accomplishments and achievements to date would not have occurred. Only a few participants indicated that their personal characteristics, such as motivation, hard work, and perseverance, would not change if they stuttered, and that they could achieve personal, occupational, and academic success regardless of their fluency. For the vast majority of participants, the thought of living life as a person who stutters seemed to invoke a sense of loss that seemed related to a vital part of their identities as fluent speakers (Hughes, Gabel, Irani & Schlagheck, 2010).

Three complications arise when considering how to provide effective therapy for adults who stutter:1 (a) There is no therapeutic approach that is universally applicable to individuals who stutter (Baxter et al., 2015 in Everard & Howell, 2018), (b) stuttering is a heterogeneous condition necessitating diverse therapeutic approaches (Manning & DiLollo, 2017), and (c) there is no consensus concerning what constitutes effective therapy outcomes (Yaruss, 2010 in Everard & Howell, 2018).



Given the diverse nature of stuttering, there are many types of therapy for children and adults who stutter. Two common options for adults who stutter are speech restructuring and stuttering modification (Blomgren, 2010). Integrated models that combine fluency shaping with desensitization and modification are also available (Manning & DiLollo, 2017; Shapiro, 1999). Whereas speech restructuring focuses on using fluency techniques, stuttering modification is holistic, focusing initially on the psychological effects of stuttering by encouraging clients to reduce their fears by using desensitization approaches. Clients are then taught to reduce struggle behaviors using modification techniques (Van Riper, 1973). Both therapeutic approaches with various therapies are comprehensively described by Lechta (2010a). According to Kollbrunner (2004 in Lechta, 2010a) within these approaches there are approximately 250-300 special stuttering therapies.

Method

In this case study of the university student Filip who stutters the author used a mixed methods approach, qualitative and quantitative perspective. Data were collected through combination of various data collecting techniques. The method of observation, the method of documentation written by the author through assessment of Filip's stuttering through the dialogues with Filip or through Filip's speaking, written descriptions of observations, videotapes of Filip, audiotapes of Filip, the analysis of videotapes and audiotapes, autobiographical documents, transcription, paraphrased transcription, questionnaire, assessment of the level of difficulty of communication situation made by Filip were used.

Selected data from Filip's personal history

Filip, 24-years-old, male with chronic stuttering. According to parents: hints of the stutter were at the age of 4. Filip has been suffering from stutter since the age of 4, i.e. for 20 years. In 2018/2019 Filip has been successfully studying Digital and Device Optics (the 1st year of Master's degree study) at Faculty of Science, Palacky University in Olomouc, Czech Republic. In November 2016 Filip himself addressed The Support Centre for Students with Special Needs at Palacky University in Olomouc and became its client because of his interest in speech therapy, he was motivated and interested in working on improving his speech, adjusting stuttering, and would like to speak more fluently. The author of the paper (speech and language therapist) also works as the coordinator for students with specific learning disorders and for students with communication disorders in this support centre. The author has been realizing speech and language therapy (SLT) with Filip since November 2016, that means in the course of 31 months.

Assessment of Filip's Stuttering

At the beginning of our SLT in November 2016 as well as in June 2019 we diagnosed Filip's stuttering. We assessed the **degree of the severity of symptoms of stuttering** during dialogue while we spoke together and during filling in the questionnaire with various communication situations.

We diagnosed the symptoms of stuttering and its severity by Lechta's Scale of presence of stuttering symptoms (Lechta, 2010, p.125). Table 1 shows the scale we used and the Table 2 specifies the symptoms of stuttering we assessed at Filip.

Table 1. Scale of presence of stuttering symptoms (Lechta, 2010, p.125)

0 – symptom is not present: this is the goal of therapy
1 – mild stuttering: usually unnoticeable by an untrained person, identifiable by a speech and language therapist during a diagnostics
2 – moderate stuttering: is obvious and noticeable by an untrained person
3 – severe stuttering: untrained communication partner doesn't know how to properly react in the conversation
4 – very severe stuttering: the symptom is so severe it can make the spoken expression of the person with stutter impossible.



Table 2. The severity of stuttering symptoms

Symptom of stuttering	Degree of the severity in November 2016	Degree of the Severity in June 2019
Prolongations of vowels and consonants	3	1
Repetitions of vowels, consonants and syllables	3-4	1-2
Fear of communication	4	2
Avoiding difficult words and situations	3-4	1-2
Changing the word order in the sentence	4	1-2

At each our SLT meeting we assessed and wrote the mark of **the level of difficulty of communication situations** Filip considered as problematic **during his working in lectures and seminars at university**. The author prepared a questionnaire with communication situations. She modified „Adolescent Communication Questionnaire“ created by Bray et al. (2003 in Shipley&McAfee, 2008, p.383) and a scale with five points: 1 2 3 4 5 (1 meaning easy communication situation for Filip and 5 meaning very difficult communication situation which Filip even used to intentionally avoid). The level of difficulty of some monitored situations (at the beginning of our SLT in November 2016 and in June 2019) is shown in Table 3. We have seen improvements and reductions in psychological stress. The difficulty of all communication situations has decreased.

Table 3. The level of difficulty of communication situations at university

Situation	Degree of difficulty in November 2016	Degree of difficulty in June 2019
Telling an information to a teacher/schoolmate	2-3	1
Asking a teacher a question alone/during lectures	3-4	1-2
Asking a schoolmate for something	2-3	1
Raising a hand and telling the answer during lectures	4	1-2
Giving a presentation	3-4	1-2
The teacher finishing words for me	3	2-3

Besides situations described in the Table 3 we assessed **the level of difficulty of specific situations that pose excessive discomfort for Filip**. The common element of these situations is that **an immediate answer is required in these situations**. The evaluation process as well as the scale from 1 to 5 points was the same as described above. The situations and their difficulty is shown in Table 4. During 31 months of our SLT we have seen improvements and reductions in psychological stress.

Table 4. The level of difficulty of situation where an immediate answer is required

Situation	Degree of difficulty in November 2016	Degree of difficulty in June 2019
A teacher asking me e.g.: What result have you got?	3	1
Ordering a side dish in the university canteen	3-4	2
Buying a train/bus ticket	4-5	2-3
Street contacts	5	2-3

Speech and language therapy to Filip – holistic therapy approach – objectives of the therapy

The author of the paper used a holistic therapy approach created for Filip. In this therapy program we applied and combined Fluency Shaping Techniques as well as Stuttering Modification Therapy. The accent was put on Stuttering Modification approach, desenzibilization and decreasing of psychological stress. At the beginning of the speech and language therapy work the author together with Filip created the therapy program with **the**



objectives of the therapy: to decrease the intensity of stuttering, to stutter openly, to minimize avoiding difficult words, to minimize word order changes in a sentence, to change avoiding behavior, to accept occasional stuttering, to reduce fear of stuttering, to seek opportunities to speak and not avoid communication challenging situations. Speech and language therapy meetings were held every 14 days, usually from 60 to 90 minutes. Together with Filip, we evaluated the effectiveness of therapy so far.

Applied techniques from Stuttering Modification Therapy

The author based the therapeutic program on her study of literature (e.g. Van Riper, Johnson, Bryngelson, Fraser in Lechta, 2010; Dell, 2004; Fraser, 2010; Geus, 2002; Lechta & Králiková, 2011; Peutelschmiedová, 2000), her experience in speech therapy with children, pupils or students with stuttering. She has received much valuable information from her clients.

The author of this article suggested and supported Filip to discuss openly about his stutter. She suggested to Filip to come to her lectures and seminars and speak with students of SLT about his stutter. The author initiated meetings with students as well as with speech and language therapists, special needs educators, university teachers and counsellors. Filip agreed to discuss about his difficulties and appropriate approaches to students with stuttering at various events, such as at the International Scientific Conference „Special Education Days of Olomouc“ (3/2018) during the joint contribution of the author and Filip. At these meetings Filip openly spoke about his difficulties and exposed himself to communication-wise challenging situations. The author recorded the client on video during various speaking situations: reading, talking together, calling to get a table reservation at a restaurant, singing a song, spontaneous speaking in foreign language, reading in foreign language, joint presentation at a scientific conference. Then they jointly analyzed and evaluated the recordings and proposed possible corrections and adjustments towards more fluent speech. The author suggested and assisted Filip with various street contacts that included primarily initiating a conversation with strangers. An overview of some of the events that took place in the therapeutic program from November 2016 to June 2019, where Filip could practice speaking, rhetorical skills, enter difficult communication situations in front of a group of listeners, reduce sensitivity to experiencing his speech difficulties, is shown in Table 5.

Table 5. Overview of activities performed within the therapeutic program from November 2016 to June 2019

	Activity	Date	Quantity
1	Intentional exposure to communication-wise challenging situations	Since 11/2016	Every week
2	Discussion about stuttering with students of SLT during lecture or seminar	Since 11/2016	10
3	Joint presentation at „Volunteering days“, Palacky University event	10/2017	1
4	Joint lecture: <i>The support of a university student with stuttering</i> for university counselors from support centres for students with specific educational needs in Czech Republic	12/2017	1
5	Joint conference contribution about stuttering at International Scientific Conference „Special education days of Olomouc“	03/2018	1
6	Joint lectures: <i>Student with communication disabilities at university</i> for students and university teachers	03/2018, 10/2018, 2/2019	3
7	Joint lecture (in English language) about stuttering for students from Youngstown State University	06/2018	1
8	Practical assisted training of buying a train ticket. The client bought a train ticket by himself, while the author was standing next to him. After the purchase, we analyzed his	6/2018 4/2019	2



talk, how he felt when talking and what can be adjusted towards fluency.

9	Practical training of buying a train/bus ticket alone. The client buys tickets while recording his talk on mobile phone. Then he analyzes it, sends the record to the author for evaluation and informs the author about how it went and how he felt talking.	Since 1/2018	Twice a week
10	Joint street contact – recording and subsequent evaluation of initiating a conversation with strangers on the streets.	Since 6/2018	25
11	Joint presentation about stuttering at National Institute for Education in Prague. The author prepared all-day lecture for speech therapists, psychologists and special educators from Czech Republic. Four students of Palacký University including Filip attended the lecture (Picture 1.)	04/2019	1



Picture 1. Joint all-day lecture at National Institute for Education in Prague (Filip is the first man from the left side)

Applied techniques from Fluency Shaping Therapy

During 31 months of our SLT we actively tried to combine these fluency shaping therapy activities: slowed-down pace of speech/reduced speech rate, slightly lengthen sounds, slightly lengthen transitions between sounds, syllables, words. We tried to speak slowly with light voice beginning/gentle onset of fonation, with gentle transitions between sounds, words, with gentle contacts of lips and tongue. The author suggested to Filip singing every day a song according to his choice with listening to original song from mobile or computer at the same time. Filip sang a song usually four or five times a week. We also applied the techniques of the intentional stuttering („bouncing words“) according to Radford (in Lechta, 2010). We tried techniques based on auditory feedback, such as Delayed Auditory Feedback (DAF), Pacer – speech directed by metronome, Masking – white noise, but we didn't use them regularly. Filip preferred not to use the software StutterHelpPro.

Since 2015/2016 Filip has been tutoring mathematics and English language to three pupils from primary school. The author of the article supported Filip in this activity because she considered this activity as very good for practicing speaking, practicing slowed-down pace of speech, practicing gentle onset of fonation, gentle transitions between sounds and words, gentle contacts of lips and tongue while speaking, trying intentional stuttering.



Findings

Nowadays (June 2019), Filip perceives his communication difficulties as less severe than at the beginning of our speech and language therapy (November 2016), he seeks opportunities to speak and does not avoid challenging situations. Filip enjoys speaking in common everyday conversations except those mentioned in this paper. He does not intentionally avoid words nor changes the word order, but he occasionally unintentionally adjusts words usage in subjectively difficult situations. Filip is still slightly afraid to stutter during buying a ticket at a driver in a bus, during buying a ticket at a railway station, when choosing a side dish in a canteen, during situations under time pressure, during street contacts – initiating conversations with strangers. The level of difficulty of these monitored situations (at the beginning of our SLT in November 2016 and actually in June 2019) is shown in Table 6. Filip assessed the situations by the scale with five points: 1 2 3 4 5 (1 meaning easy communication situation for Filip and 5 meaning very difficult communication situation which Filip even used to intentionally avoid). We can see improvements and decreasing of psychic tension. The difficulty of all communication situations has decreased.

Table 6. The most challenging situations for Filip

Situation	Degree of difficulty in November 2016	Degree of difficulty in June 2019
Communication in a group	2-3	1-2
Situations under time pressure (e.g. calling an ambulance)	3-4	3
Buying a bus ticket at a driver in a bus	4-5	2-3
Buying a train ticket at a railway station	4-5	2-3
Choosing a side dish in a canteen	3-4	2
Street contacts – initiating conversations with strangers	5	2-3

Conclusion and Recommendations

Tips for teachers with students who stutter and other important information about stuttering are described on The Stuttering Foundation website, which is a Nonprofit Organization Since 1947 — Helping Those Who Stutter: <https://www.stutteringhelp.org/>. Recommendations supporting communication of children, adolescent or adults with stuttering are stated by Lechta (2010a, 2010b). We modified these appropriate approaches during active speech and language therapy and cooperation with the Palacký University students who stutter. We tried to adapt the approaches to support functional communication with the university student who stutters. During communication, during oral examination and during each situation we recommend these appropriate approaches:

- Listen closely and wait until the student finishes what he wants to say.
- Speak at a calm pace of speech.
- Use pauses more often so that the student could fully express himself.
- Keep the visual contact during dysfluencies, prolongations, repetitions, audible or silent blocking, etc.
- Examine the student among the first from the group in order to minimize the time pressure.
- Don't finish words/sentences for the student.
- Provide enough time for the student to speak.
- Provide the student with more time for answering the questions.
- Allow the student to answer the questions by whispered speech.
- Helpful techniques are reading together in a pair, reading together in a group, singing a song, but at university there is not the occasion for these techniques.
- Give students with stuttering as many opportunities to speak as possible.



The example of Filip's good experience with teacher's own initiative and appropriate approach: "One day the teacher found out that I have a communication problem with stuttering. The teacher himself addressed me how to talk to me about what suits me. I welcomed this approach. The teacher had the courage to ask and broke the taboo. We both discussed appropriate approaches during seminars/lectures. The teacher got an idea how to handle my communication problem. When stuttering, the student shouldn't feel uncomfortable that he has done something wrong".

The next step of our research would be to carry out a larger study, involving more participants who stutter and explore the overall effectiveness of this therapeutic approach by stuttering modification therapy.

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References

- Blomgren, M. (2010). Stuttering treatment for adults: An update on contemporary approaches. *Seminars in Speech and Language*, 31(4), 272–282.
- Daniels, D. E., Panico, J. & Sudholt, J. (2011). Perceptions of university instructors toward students who stutter: A quantitative and qualitative approach. *Journal of Communication Disorders*. Vol. 44, 631-639.
- Dell, C., W. (2004). *Koktavost u dětí školního věku*. Brno: Paido.
- Diagnostic and Statistical Manual of Mental Disorders DSM-5*. (2013). Fifth edition. Arlington: American Psychiatric Association.
- Everard, R. A. & Howell, P. (2018). We Have a Voice: Exploring Participants' Experiences of Stuttering Modification Therapy. *American Journal of Speech-Language Pathology*. Vol. 27, 1273–1286, October 2018.
- Fraser, J. (2010). *Účinné poradenství při terapii koktavosti*. Praha: Portál.
- Geus, E. (2002). *Někdy koktám*. Brno: Paido.
- Howell, P. (2011). *Recovery from stuttering*. London, United Kingdom: Taylor & Francis.
- Hughes, S., Gabel, R., Irani, F. & Schlagheck, A. (2010). University students' perceptions of life effects of stuttering. *Journal of Communication Disorders*. Vol. 43, Issue 1, January-February 2010, 45-60.
- Chang, S.-E., Zhu, D. C., Choo, A. L., & Angstadt, M. (2015). White matter neuroanatomical differences in young children who stutter. *Brain*, 138, 694–711.
- Kraft, S. J., & Yairi, E. (2011). Genetic bases of stuttering: The state of the art, 2011. *Folia Phoniatrica et Logopaedica*, 64(1), 34–47.
- Lechta, V. (2010a). *Koktavost Integrativní přístup*. Praha: Portál.
- Lechta, V. (2010b). Zvláštnosti inkluzivní edukace žáků s NKS. In LECHTA, V. et al. *Základy inkluzivní pedagogiky*. Praha: Portál, 282-284.
- Lechta, V., Králiková, B. (2011). *Když naše dítě nemluví plynule. Koktavost a jiné neplynulosti řeči*. Praha: Portál.
- Manning, W. H., & DiLollo, A. (2017). *Clinical decision making in fluency disorders (4th ed.)*. San Diego, CA: Plural.
- Peutelschmiedová, A. (2000). *Aktuální problémy balbutologie*. Olomouc. Univerzita Palackého.
- Shapiro, D. A. (1999). *Stuttering intervention: A collaborative journey to fluency freedom*. Austin, TX: Pro-Ed.
- Shipley, K. G., McAfee, J. G. (2008). Assessment of Stuttering and Cluttering. In Shipley, K. G., McAfee, J. G., *Assessment in Speech-Language Pathology*. Delmar: Cengage Learning, 356-387.
- Van Riper, C., (1973). *The treatment of stuttering*. Englewood Cliffs, NJ: Prentice Hall.
- Ward, D. (2018). *Stuttering and Cluttering*. New York: Routledge.



Teachers Intercultural Sensitivity Towards Different Ethnic and Religious groups

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Abstract

Intercultural education is especially important for Georgia. One of the big problems that the Soviet Heritage left is a civil integration of various religious or ethnic groups living in Georgia. One of the hindering factors of civil integration is the lack of communication and knowledge about Georgian cultural features. Stereotypical attitude towards each other's heritage and national traditions is another reason that interferes to strengthen intercultural relationships. In the reports of various international organizations and Georgian Public Defender, we often encounter the problems of citizens with different ethno-cultural identity. Our article aims at measuring only one aspect of intercultural education—primary teachers' intercultural sensitivity. The geographical area of our research is also limited- The target schools involved in the research are public and private schools of Adjara region only. The goal of the research is to create new knowledge in the field of education. This will enable the educators, schools, self-governments, non-government organizations, parents and others, to consider the best practices of the developed country, as well as assessment based on the local empirical evidences.

Key words: teacher, differences, intercultural sensitivity.

Introduction

Over the last decades, one of the major problems of education research became peaceful coexistence, effective communication and preparation for development in multicultural society. Consequently, the need of intercultural education is becoming increasingly sensitive.

The transformation of social, economic, political, demographic and cultural environment in multicultural countries has led to the search of adequate educational decisions for solving the problems arising in the relations of different cultural identity groups.

Intercultural education is especially important for Georgia. One of the big problems that the Soviet Heritage left is a civil integration of various religious or ethnic groups living in Georgia. One of the hindering factors of civil integration is the lack of communication and knowledge about Georgian cultural features. Stereotypical attitude towards each other's heritage and national traditions is another reason that interferes to strengthen intercultural relationships. In the reports of various international organizations and Georgian Public Defender, we often encounter the problems of citizens with different ethno-cultural identity (Malazonia, 2016).

The above mentioned emphasizes the importance of scientific study of the existed conditions of intercultural education and relationships. It will help to identify the problems, reasons and define the strategies of solving revealed problems.

Intercultural education, aiming at creating the equal opportunity of education for groups of different cultural identity, is intensively studied by contemporary scientists (Banks, J. A. and Banks, C. A. M., 2010; Bennett M., 1986; Bennett M., 2011; Castiglioni I., Bennett J. Milton, 2018; Hammer Mitchel R., Bennett J. Milton., Wiseman Richard, 2003; Malazonia D., Maglakelidze Sh., Chiabrishvili N., Gakheladze G., 2016, 2017). In 2010-2016 the factors of students' intercultural competence development and aspects of intercultural education were studied by Georgian scientists according to the Georgian higher education institutions Teachers' Educational Programmes and primary school books (Tabatadze, Gorgadze, 2013; Tabatadze, Natsvlshvili, 2008; Gedevanishvili, Tsereteli, 2015).



Our article aims at measuring only one aspect of intercultural education – primary teachers’ intercultural sensitivity. The geographical area of our research is also limited - The target schools involved in the research are public and private schools of Adjara region only. The aim of the research is to identify the primary school teachers’ intercultural sensitivity in Adjara region.

Methodology

Research includes the quantitative and qualitative methods of data collection. Mixed methodology, numerical and verbal data were used to collect empirical data. Besides, the survey was used to get the whole picture of the situation and the final analyses was done through individual and group interviews and focus groups. We used several tools for data collection: the minimum requirement are questionnaires, semi-structured interviews (individual and group), observational data and documentary data.

More specifically, through research tools we obtained the analysis of the data we got from the focus groups conducted with the school community of Adjara region; besides, the analysis of the education policy documents of Georgia, including regulatory and legislative documents and acts was done; Thus, in the empirical data component we will discuss the results of local and international studies.

One of the tools of the research is a specially created three types of questionnaires for measuring intercultural sensitivity for teachers; the questionnaire was based on two conceptual frameworks spread in intercultural education sciences, namely Bennett model of development of intercultural sensitivity and twelve sources of cultural identity formation (Bennett, 1986, 2011).

Milton Bennett explains that intercultural understanding is individual process and defines it as continuum of different levels of personal development in the recognition and acceptance of cultural differences. Developing intercultural sensitivity means to develop capability to recognize and to accept differences between cultures’ perception of the world (Bennett, 2011).

Developing sensitivity goes through the following stages of ethnocentrism and ethno-relativism:

Table 1. Developmental model of intercultural sensitivity (DMIS)

Table 1. The spectrum of attitudes of intercultural sensitivity (Doris)										
Ethnocentrism					Ethno-relativism					
Denial	→	Defense	→	Minimization	→	Acceptance	→	Adaptation	→	Integration
Complete denial of different ways of human existence.		Now others are recognized but there is great hostility and negative feelings towards them. Differences are perceived as a danger for own group. There are negative		The existence of the others is tolerated, by minimizing the differences between groups		Acceptance of the others by respecting differences in behavior and values.		Full respect and empathy with others and adaptation of personal behavior depending on cultural context.		Absorbing and integrating some aspects of behavior and values of »others« into our culture, but keeping our own culture too.



attitudes and
prejudices
towards other
groups.

Source. Bennett, M. (2011). *A Developmental Model of Intercultural Sensitivity*.

It is essential that the cultural identity of the individual (values, beliefs, knowledge, skills, and attitudes) is based on the experiences related to these twelve sources that are gained through the socialization process of the individual. Consequently, cultural identity of individuals is different and these differences are revealed during the formation of cultural identity in relation to the 12 sources ((Study of intercultural education aspects, 2014).

There are twelve sources of cultural identity that affect the teaching and learning process: ethnicity, race, ability/disability, language, social status, religion, sexual orientation, geographical location, age, health, gender and social class. Of course, these 12 sources have crossing points. An individual's cultural identity (values, beliefs, knowledge, skills, attitudes) is based on the experience towards these twelve sources. This experience is acquired by individuals with social structures, social institutions, such as family, church, workplace, school, means of media, etc. (Study of intercultural education aspects, 2014).

Within the frames of the research, the intercultural sensitivity of teachers in Adjara region will be studied in relation with the individual approach to these 2 different cultural identity sources (ethnicity and religion) and unity of these the sources of identity.

It is noteworthy, that the reflection of Bennett modeling in the teaching learning process is the most convenient, since it is based on the Bloom's cognitive development taxonomy from simple to complex and thus, it makes possible to assess the development of intercultural competence.

The goal of the research is to create new knowledge in the field of education. This will enable the educators, schools, self-governments, non-government organizations, parents and others, to consider the best practices of the developed country, as well as assessment based on the local empirical evidences.

The research will help us to determine the effectiveness of the measures taken in Georgia aiming at development of multicultural competencies.

Based on the complexity of the used materials and research issues, the present research will enable us to plan other studies in different directions. The final stage of the study will be the elaboration of the ways to overcome difficulties.

Results

The book published by the authorship of James A. Banks and Chery McGee Banks "Multicultural education, issues and perspectives" explains the idea of multicultural futures that the authors of the work consider in the following: Multicultural education is an idea stating all students, regardless of the groups to which they belong, such as those related to gender, ethnicity, race, culture, language, social class, religion, sexual orientation, or exceptionality, should experience educational equality in the schools. Some students, because of their particular characteristics, have a better chance to succeed in school as it is currently structured than students from other groups. Multicultural education is also a reform movement designed to bring about a transformation of the school so that students from both genders and from diverse cultural, language and ethnic groups will have an equal chance to experience school success (Banks, 2016).



James Banks points out that multicultural education views the school as a social system that consists of highly interrelated parts and variables. To implement multicultural education in a school, we must reform its power relationships, verbal interaction between teachers and students, culture, curriculum, extra-curriculum activities, attitudes toward minority languages, testing and assessment practices, and grouping practices. The school's institutional norms, social structures, cause-belief statements, values, and goals must be transformed and reconstructed (Banks, 2016).

Over the last decades, preparing people for a peaceful life in a multicultural society has been a significant problem in the field of education. Consequently, the need for intercultural education is becoming increasingly sensitive. In this regard, Georgia is not an exception.

Georgia faced other challenges in the globalization epoch. Until now, there is a substantial problem of peaceful cohabitation, economic and social integration and mobility of people with different ethno-cultural identities, as well as exiles living in Georgia (from Abkhazia and South Ossetia), refugees (from the North Caucasus, Chechnya) and repatriates (so called "Turkish Meskhetians"). Besides, there is a confrontation based on ethnic and religious grounds (Malazonia, 2017).

The process of globalization has changed the map of ethnic minorities of Georgia. Namely, alongside the "traditional minority" new ethno-cultural minorities appeared. Besides, the number of emigrants is significantly increased. The geographical area of external mobility of citizens of Georgia has also increased. The new reality has further intensified the issue of intercultural education and competences.

According to education researchers, for the effective implementation of intercultural education it is important: "(A) Legislative background to promote anti-discrimination and intercultural competences; (B) Study manuals, the effectiveness of which depends on the national curriculum and the effective mechanisms of approving textbooks; (C) Teacher with high intercultural sensitivity equipped with appropriate knowledge and skills to conduct the learning process with the necessary approaches to multicultural education; (D) non-discriminatory school environment" (Tabadze, Natsvlishvili, 2008).

In the last decade, many things have been done in order to promote civic integration. Georgia recognizes the declarations and documents adopted by the Council of Europe, which define the intercultural education policy; the documents, such as the Law of Georgia on the Elimination of All Forms of Discrimination (2014), have been set up to determine the intercultural policy; the Law of Georgia on "Freedom of Speech and Expression" (2012); "National Concept of Tolerance and Civic Integration and Action Plan" (2009); "Multilingual Education Strategy and Action Plan" (2009). Within the "Multilingual Education Program" bilingual education was introduced in more than forty non-Georgian schools (Malazonia, 2017).

According to the Law of Georgia on "General Education", a citizen of Georgia, whose native language is not Georgian, has the right to get full general education in his / her native language. With the same law it is prohibited to use the educational process at school for religious indoctrination, proletarianism and forced assimilation purposes. The law obliges the school to promote tolerance and mutual respect between pupils, teachers and parents, regardless of religious, ethnic, linguistic and ideological affiliation (General Education, 2005).

One of the important documents that promotes the development of intercultural competences among students is a national curriculum. School textbooks are based on the requirements of the National Curriculum, which aims at



acquisition and development of intercultural competences of pupils. From the point of view of intercultural education, the social sciences block has a big impact on the National Curriculum, which includes the following training courses: “Me and Society” (primary level); “History”, “Geography” and “Civic Education” (basic and secondary level) (National Curriculum, 2016).

Since 2016, the Government of Georgia has been carrying out the Professional Development Program for Ethnic Minority Teachers, which unites the programs implemented by the Ministry of Education and Science of Georgia. In the previous years – “Teach Georgian as a Second Language” (2009-2015) and “Georgian Language for Future Success” (2011-2015) aimed at promotion of the state language teaching and civil integration of ethnic minorities living in Georgia (Gedevanishvili, 2011).

The following facts demonstrate the importance of intercultural education for Georgia: according to the 2014 general population census data, Georgians constitute 86.8% of population; Georgian population of 86.8% of the population of Georgia according to the 2014 general population census data; Then come Azerbaijanis (6.3%); Armenians (4.5%); Russians (0.7%); Ossetians (0.4%) and others. 83.4% of the population is Orthodox Christians. 10.7% of the population are Muslims. The Armenian Apostolic Church is followed by 2.9%; Catholics - 0.5% (Malazonia, 2017).

The importance of the abovementioned is strengthened by the fact that today in Georgia are functioning 234 non-Georgian schools (11% of the total number of public schools) and 404 non-Georgian sectors. There are about 72 thousand ethnically non-Georgian pupils. As for the number of non-Georgian school teachers, they constitute 9.5% of the total number of public-school teachers. According to the data of 2018, there are 256 public and private schools in Adjara with 58 320 students and 7930 teachers. Among them 7 non-Georgian (Russian) sectors or classes with 1961 pupils (www.geostat.ge).

The research was conducted in 25 schools of 6 regions of Adjara. Was selected not only city schools but also schools of high mountainous villages. Such village schools were also selected in the research process. It is noteworthy that in some villages of Adjara mountainous regions, the majority of the population is Muslim. Such village schools were also selected in the research process. We also enquired the teachers of elementary classes of non-Georgian schools and sectors. According to the age of participants, the teachers from 25 to 75 years were divided into five categories. The purpose of age-division of the teachers was to find out whether the intercultural sensitivity of the different age group teachers was different from each other.

The study has examined general intercultural sensitivity to primary level teachers, as well as the attitude towards different ethnic and religious groups.

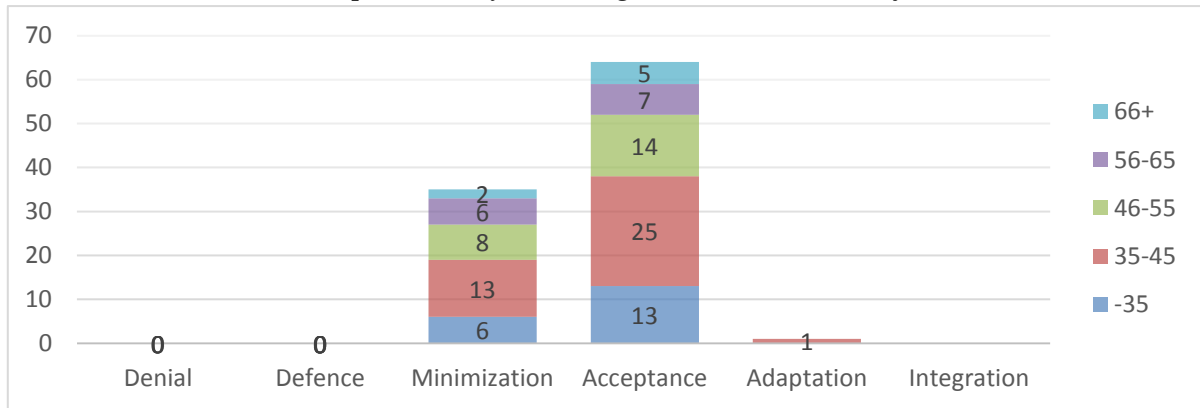
About 60% of the survey participants were from the village and borough settlement and 40% - from town settlement. The sharp contrast among the agricultural, borough and city teachers was less marked by intercultural sensitivity.

The study showed that the intercultural sensitivity of primary and public as well as non-Georgian and Georgian primary school teachers also does not differ significantly from each other.

Primary teacher's General cultural sensitivity. The survey showed that most teachers are in the ethno-relative phase of intercultural sensitivity developed by Bennett. In particular, 65 % of respondents are in the ethno-relative phase in terms of general cultural sensitivity and 35 % - in ethnocentric phase.



Graph 1. Primary teacher's general cultural sensitivity



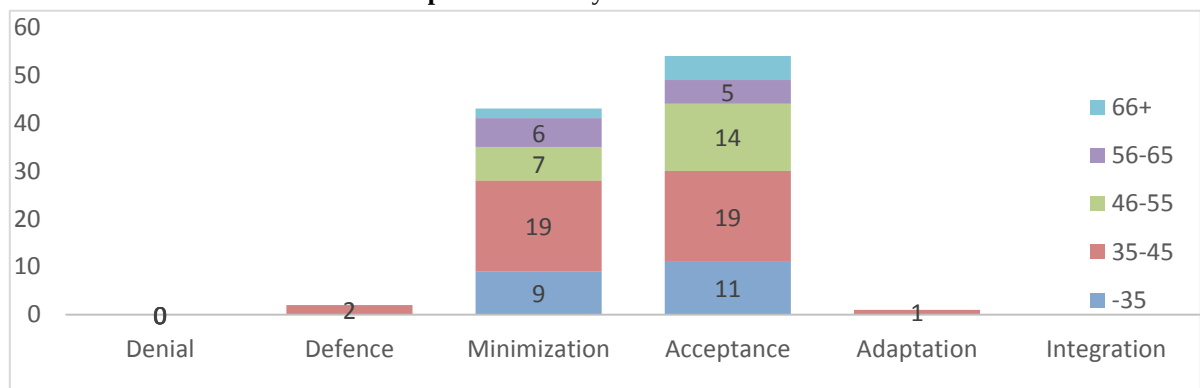
However, it should be mentioned that all the teachers being in the ethnocentric phase are at the highest level of ethnocentric phase or, the level of minimizing of differences. None of them are at the lowest level of intercultural sensitivity – at the denial of differences and self-defense levels.

In the same context, the positioning of teachers of ethno-relative phase according to stages, is very interesting. Most of the teachers in the ethno-relative phase are at the first level of acceptance of differences of the ethno-relative phase, and only 1 teacher who participated in the survey turned out to be at the highest level of ethno-relative phase – at the level of adaptation/integration of differences.

The distribution of women and men participating in the study objectively reflects the number of female and male teachers in Georgia, which is one more proof of the validity of the selection. Out of the participants of the study, 8% of the participants were men and 92% were women. The intercultural sensitivity of men and women has been distributed as follows: all male participants are in the ethnocentric phase (minimization of differences).

Sensitivity to ethnic differences. The survey showed that the majority of teachers are in ethno-relative phase of intercultural sensitivity towards ethnic differences developed by Bennett – 55 % of respondents. 45 % of teachers are in ethnocentric phase. However, we see that the difference between these two stages is not so great. 2 % of teachers are in the phase of defending from differences, and only 1 % – in adaptation phase.

Graph 2. Sensitivity to ethnic differences

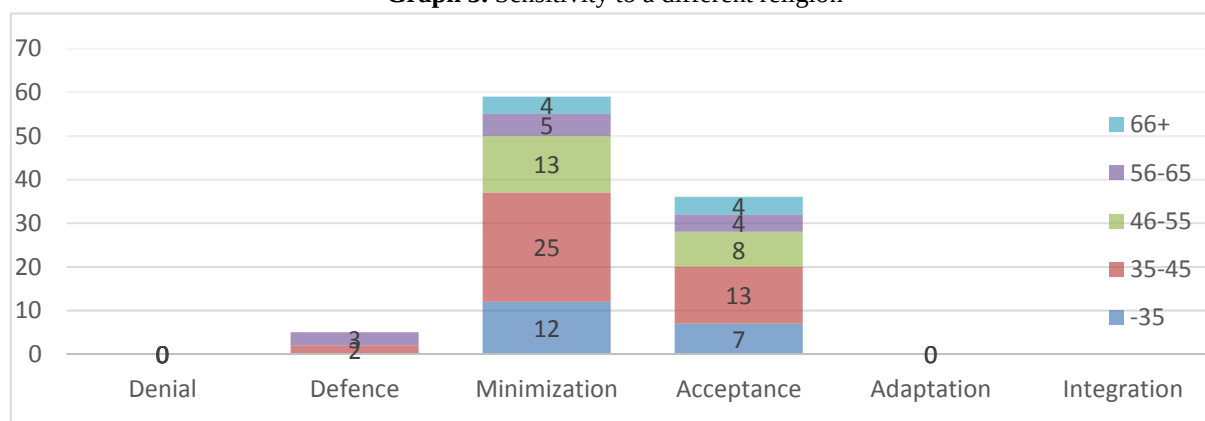


Sensitivity to a different religion. We have received different results in religious sensitivity research. Most of the



surveyed teachers, in particular 64 %, are in the ethnocentric phase, only 36 % are in the ethno-relative phase.

Graph 3. Sensitivity to a different religion



The presented results are only part of the extensive and lengthy process of the research. The topic is sensitive and we take maximum care during the research.

Conclusions and Recommendations

The study has shown a number of significant trends: The requirement for development of multicultural competences in educational documents is in line with international regulations, but the problem still remains to be implemented in practice.

The sensitivity is differentiated towards different aspects. Tolerance to social status, different health or sex does not exclude intolerance to racial, linguistic, religious, ethnic and civic differences and vice versa. Consequently, there is a different tolerance and different intercultural sensitivity to cultural sources of identity.

It is often assumed that a teacher of civic education should have the competences of intercultural education and the subject “civic education” should provide the formation of intercultural competences among schoolchildren. The study once again demonstrated the necessity of strengthening the intercultural education component in the preparation of school curriculum and textbooks;

The results of the survey showed the need for training of primary level teachers in the field of intercultural education. Being at the last stage of teachers’ ethnocentric phase gives us hope that the intercultural sensitivity, knowledge and competence of teachers to be replaced by the first stage of their ethno-relative phase of intercultural sensitivity.

Consequently, the school can be considered as a complex social system, because it consists of many interconnected components. In order to ensure that all schools have equal opportunity to receive education, all of its component should be changed, which is related to certain difficulties. Often there is a change in one or several components that is a mistake and does not help improve the quality of intercultural education.

When discussing education reform, it is necessary to consider the dimensions of multicultural education, which is offered by Banks: integration of content, knowledge building process, reduction of prejudice, impartial pedagogy and raising culture and social structure of school.

References



- Banks, J. A. and Banks, C. A. M. (Eds.) (2016). *Multicultural Education: Issues and Perspectives*, John Wiley & Sons, Hoboken, NJ.
- Bennett, M. (1986). Developmental Approach to training Intercultural Sensitivity. *International Journal of Intercultural Relations*, 10(2), 179-196. Retrieved from <https://www.sciencedirect.com/science/article/abs/pii/0147176786900052>
- Bennett, M. (2011). A Developmental Model of Intercultural Sensitivity. *The Intercultural Development Research Institute. USA, Italy*. Retrieved from https://www.researchgate.net/profile/Milton_Bennett2/publication/318430742_Developmental_Model_of_Intercultural_Sensitivity/links/5c49d6c6299bf12be3e05f91/Developmental-Model-of-Intercultural-Sensitivity.pdf
- Castiglioni, I., Bennett, M. (2018). Building Capacity for Intercultural Citizenship. *Open Journal of Social Science*, 06(03), 229-241. Retrieved from https://www.researchgate.net/publication/324082179_Building_Capacity_for_Intercultural_Citizenship
- Hammer, R., Bennett, M., Wiseman, R. (2003). Measuring Intercultural Sensitivity: The Intercultural Development Inventory. *International Journal of Intercultural Relations*. 27, 21-443. Retrieved from <https://idiinventory.com/wp-content/uploads/2017/01/IDI-2003-measuring-IJIR.pdf>
- Gedevanishvili, I., Tsereteli, M., Shurghaia, M. (2011). Measuring intercultural sensitivity among Georgian students. *Bilingual Education*, N5, 2-10.
- Study of intercultural education aspects according to the Teacher Education Programs of Higher Education Institutions (2014). *Research report. Center for Civil Integration and International Integration*.
- Malazonia, D., Maghlakelidze, Sh., Chiabrishvili, N., Gakheladze, G. (2017). Intercultural Education: Problems, Their Analysis and Development Perspectives in Georgia. Ilia State University, Tbilisi.
- Malazonia, D., Maghlakelidze, Sh., Chiabrishvili, N., Gakheladze, G. (2016). The Guideline in Intercultural Education. Ilia State University, Tbilisi.
- Tabatadze, S., Gorgadze, N. (2013). Study of intercultural education aspects of primary schools in Georgia. *Research report. Tbilisi*.
- Tabatadze, Sh., Natsvlishvili N. (2008). Intercultural Education. National Centre for Teacher Professional Development. Tbilisi
- National Curriculum (2018-2024). Retrieved from <http://ncp.ge/ge/curriculum/satesto-seqtsia/akhali-sastsavlo-gegmebi-2018-2024/datskebiti-safekhuri-i-vi-klasebi-damtkitsda-2016-tsels>
- Law of Georgia on General Education (2005). Retrieved from <http://mes.gov.ge>.
- Georgian Government (2009). National Concept of Tolerance and Civil Integration and Action Plan. Retrieved from <http://smr.gov.ge/Uploads/60966e.pdf>
- Georgian Law on “Elimination of All Forms of Discrimination” (2014). Retrieved from <https://matsne.gov.ge/ka/document/view/2339687?publication=1>
- Georgian Law on Freedom of Speech and Expression (2004). Retrieved from <https://matsne.gov.ge/ka/document/view/33208?publication=6>



Marketing Research of Livestock Products Market

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Abstract

Development of Azerbaijan agriculture based on the market relations improved rise of personal initiative in enterprises and households engaged in production of livestock products, and this, in its turn, led to increase of production of those products. Multi-sectoral livestock breeding has deepened competition between different enterprises and households and boosted market-based development. Businesses and farms are now completely free to determine the livestock products to be produced, to justify the price level of those products, to share the products and to select sales channels and they independently accept decisions on various aspects of production and sales activities. Ensuring independence of production and sale activities of enterprises and households engaged in production of livestock products requires their flexible adaptation to changing market conditions and consumer demand. As a result, enterprises and businesses, in contrast to the administrative and management system, are freely adopting decisions on marketing activities based on market information. However, not all businesses and households have the capabilities and skills to conducting marketing research of the market. At the same time it should be noted that the demand of the population of our country for livestock products is not fully compensated and there are problems with balanced nutrition of the population. The elaboration of substantive measures to address this problem is possible on the basis of the marketing research of the dairy products market.

Marketing research of the market of livestock products may allow to reveal the amount of outstanding demand of the population for these products and to obtain valuable information that can be used in decision-making on production and sale activities in the enterprises and households engaged in the production of these products.

Key words: agriculture, market relations, livestock products market, marketing research of the market, balanced nutrition.

Introduction

It is long years that, there are problems in livestock products market of Azerbaijan. These problems show themselves as market demands which are not met fully and as not meeting of the quality of foods products of animal origin offered to consumers to their demands in several cases. Difficulties in formation of livestock products resources in the capacity conforming to the demand of country people create problems in relation to the balanced nutrition of population levels. The complex solution of these problems and providing of development of livestock products market in desirable direction may be possible on the basis of marketing research of the said market.

Marketing research of livestock products market may be conducted on several directions. Those directions include: learning of market balance, profitability, progress tendencies, specifying of factors making successes for enterprises and economies in livestock products market, etc. In all cases, an enterprise or economy wishing to act in this market must have information about quantity of market demand which is not met and must be able to make efficient measures for its meeting. Making of the said measures stipulates the conducting of marketing research of the market.



Current condition of production and consumption of livestock products

The portion of plant-growing products decreased from 50,1% up to 45,9% in total agricultural product on all economic categories during 2013 – 2017, the portion of livestock products increased from 49,9% up to 54,1%. Decrease of the portion of plant-growing products in the structure of total agricultural product and increase of the portion of livestock products corresponding to it had durable character from 2000 up to the present time and it is expecting to keep this tendency in future too. It is regarded to full meeting of people's demand to livestock products and high prices of the said products cause to preference of production of these products by manufacturers.

The important part of cattle existing on the country falls to the share of individual owners, family peasants and housekeeping. 88,6-90,7% of livestock products, 92,1-95,4% of plant-growing products fell to the share of individual owners, family peasants and housekeeping during 2013-2017. The remaining part of products has been produced in agricultural enterprises and other organizations. Production of meat (in the cut weight) increased from 286,9 thousand ton up to 316,8 thousand ton (10,4%), milk production from 1796,7 thousand ton up to 2024,1 thousand ton (12,7%), egg production from 1401,5 million pieces up to 1714,0 million pieces (22,3%) in all economic categories during these years. Increases occurred in production of food products of animal origin in the considered period. So, sausage production increased from 6,0 thousand ton up to 13,5 thousand ton (2,3 times), milk with 1- 3% fat content from 830 thousand ton up to 913,9 thousand ton (10%), cream with 6 - 29% fat content from 4559 ton up to 6541 ton (43,5%), cheese and quark production from 47,3 thousand ton up to 54,0 thousand ton (14,2%), butter production from 21,9 thousand ton up to 25,3 thousand ton (15,5%) in 2017 in comparison with 2013.

Some changes occurred in the structure of meat production on types during last years (table 1).

Table 1. Content and structure of meat produced in Azerbaijan

	2013		2014		2015		2016		2017	
	thousand ton	%	thousand ton	%	thousand ton	%	thousand ton	%	thousand ton	%
Cow and calf meat	118,4	42,9	122,4	42,0	129,8	43,5	131,0	43,3	132,9	42,0
Sheep and goat meat	70,4	25,5	68,7	23,6	70,9	23,7	75,2	24,9	79,1	25,0
Pork	0,7	0,3	0,7	0,2	0,7	0,2	0,5	0,2	0,5	0,2
Poultry	86,5	31,3	99,4	34,1	97,2	32,6	95,5	31,6	104,3	32,9
Total	276,0	100,0	291,2	100,0	298,6	100,0	302,2	100,0	316,8	100,0

Source: the table is made by author in accordance with information of the State Statistics Committee.

According to the information of the table, the portion of poultry in the content of meat produced on the country increased from 31,3% up to 32,9%. It is expected that, increase of portion of poultry in the content of meat and meat products including in consumption of the country population will continue in the future. So, fulfillment of priority position as providing of food safety of the country requires the development of grain growing and also development of industrial poultry. Therefore, considerable portion of demand of Azerbaijani people to meat and meat products may be provided on the account of development of industrial poultry in the future. There are wide potential opportunities in Azerbaijan for it and also experience existed at the time of former union state and at present. It should be noted here that, this tendency is also over the world. So, researches and investigations show that, there are some changes in regard to preference to this or other food products in the lifestyle of the members of modern society.



For example, if 40% of 308,0 million ton produced meat consisted of pork, 30% poultry, 25% beef, 5% other meat types (sheep, goat, horse, deer, other meat) over the world in 2013, according to the thought of the recognized experts, the portion of poultry in the content of meat resources to be formed over the world in 2020 will increase to the first place and will be about 120 million ton. This tendency will show its impact to Azerbaijan too and it is observing at present. So, researches show that, the portion of poultry produced in the country in the content of meat resources formed in Azerbaijan increased from 30,9% up to 35,0% (the level of indicator forecasted by experts for 2020 is observing in Azerbaijan at present) during 2013 -2017.

By considering that, most portions of meat resources to be formed on the world in the future will on the account of poultry, it may be clearer that, the development of this field in Azerbaijan has great importance. It means the increase of potential capacity of the market of poultry and poultry products of our country and increase of market chances (marketing opportunities) of enterprises producing poultry products.

Recently, increase of poultry production in Azerbaijan caused to more increase of the level of meeting of demand of population to that product. Full meeting of demand of population to poultry and meat products made of this meat will directly depend on application of marketing in poultry enterprises in the future. Because, providing of development of local poultry enterprises may be very difficult without learning the demands of population put forward against this product. This difficulty may cause to more strengthening of expansion of poultry manufacturers of foreign countries to the market of the said products of Azerbaijan and to decrease of the level of providing of food safety of the country.

Upon conducting of reforms in agrarian section, increase of production of livestock products in country almost occurred on the account of extensive factors. It is not possible to attain to high productivity in cattle-breeding yet. Thus, research shows that, milk yield from each cow and buffalo increased from 1363 kg up to 1528 kg or 12,1% for beginning of 2017 in comparison with 2013. It is not high indicator and it is very difficult to meet fully the demand of population to milk and dairy products with this level of productivity.

The extensive development in cattle-breeding is risky in regard to durable development of agrarian area of the country. So, providing of increase of livestock products on the account of per animal may lead to rapid destruction of natural landscape and deserting. Therefore, the increase of product manufacture must be provided on the account of increase of productivity in cattle-breeding - more precisely, cattle-breeding must be developed with intensive grounds. "In order to extend the application of intensive farm model in the country and to improve race content of cattle-breeding, there is a need to continue measures related to development of breeding work" [1, p.95].

For development of cattle-breeding with intensive grounds, first of all, solid feed base established. "Recently, production of livestock products increased in the country, in its turn, it raises the issue of demand of cattle-breeding to feed with mixed force. Though several measures have been taken in this field, there are problems in improvement of supply of cattle-breeding with feed having mixed force" [1, p. 95].

The successful activity of enterprises in livestock products market directly depends on application of marketing as a management method of production-sale activity in those enterprises. Recently, certain achievements have been obtained in this field in Azerbaijan. So, the realization of successful assortment policy by enterprises such as "Palmali" Group of Companies, "Milla" dairy plant, "AzƏti" LLC, etc. gave an opportunity for said enterprises to include in different segments of livestock products market that passed from deep processing. The products of these enterprises are recognized well in internal market and distinguish for packing in high level. But, our marketing



observations show that, consumer satisfaction on products on the said enterprises is not high. Such condition may result in weakening or loss of market position of enterprises at the end.

The analysis of information of the State Statistics Committee on “examination” of households shows that, recently no considerable increases happened in consumption of livestock products per capita on country. The consumption of meat and meat products per capita was 33,6 kg, consumption of milk and dairy products was 269,6 kg, consumption of fish and fish products was 7,2 kg, egg consumption was 159 pieces in 2017. 15,4 kg decrease was observed in consumption of milk and dairy products per capita in 2013-2017. In our opinion, not change in consumption of meat and meat products of population was in regard to not being high of its purchasing power and formation of reserves of the said products at lower level than demand.

There were not considerable increases in consumption of livestock products per capita during the years analyzed, therefore the portion of products of animal origin didn't increase in calories of food products consumed per day, in contrary, decreased from 18,0% up to 17,0% or 1,0 %.

The certain portion of the demand of Azerbaijani population for livestock products is met to the account of import. But, the import share of meat and meat products, milk and dairy products, fish and fish products and egg-related resources and these products formed in the country in the composition of consumption on the country isn't high. Thus, researches show that, within 2013 – 2017s, the import share of meat and meat products consumed by the country's population increased from 8,0 % to 15,2 %, and the import share of egg consumption increased from 0,1% to 1,3 %. During this period, the import share of milk and dairy products consumption decreased from 25,4% to 14,8 %, and the import share of fish and fish products consumption decreased from 29,0 % to 19,7%. The import share of aforementioned livestock products in the composition of quantity consumed by the country's population varies within the allowable limits in terms of ensuring the food safety of the country. However, the fact that these products don't meet the demand of the country's population creates the different “view” in terms of ensuring the food safety of the country. If the reserves of livestock products conforming to the effective physiological consumption norms existing in the period of the former Soviet Union are created and livestock products that aren't sufficient in quantity suitable to the demand are imported, then the import share in the composition of resources of livestock products to be formed in the country would be greater.

Marketing opportunities in livestock products market

Although the livestock products recently increase in our country, the demand of the country population for these products isn't fully met yet. Thus, meeting of the demand of different groups of the population for meat, milk and egg out of major types of livestock products was lower than effective physiological consumption norms existing in the Soviet Union period. One of the main reasons for this is the low productivity of animals in agriculture and progress in the cattle-breeding is mainly due to extensive factors.

Although the demand of the country's population for meat and meat products, fish and fish products, milk and dairy products is met at a much higher level than the minimum consumption norms, reaching of the consumption of these products to the level of the effective physiological norms existing in the period of the former Soviet Union remains as a problem. The solution of this problem currently requires making and realizing measures implemented for the progress of the cattle-breeding, as well as measures on the marketing of livestock products.

Currently, the potential capacity of meat and meat products market among the segments of major types of food products is higher. Let's look through the development dynamics of the meat and meat products market in



Azerbaijan based on some indicators used to characterize the market condition of these products in a book [4] titled “Competitive Strategies of Agrarian Organizations” written by the Russian economist scientists Mazloev V.Z., Syomin A.N. and Borovskikh N.V. (Table 2).

As it seems from table data, in 2017 compared to 2013 the minimum volume of meat and meat products market (it was determined multiply by the minimum consumption norm, the average annual list number of population) increased 3,1%,

Table 2. Dynamics of indicators characterizing the meat and meat products market

	2013	2014	2015	2016	2017
Actual market volume, thousand ton	318,3	322,3	327,1	326,9	328,1
Chain growth rate of the actual market volume, %	102,2	101,3	101,5	99,9	100,4
Minimum market volume, thousand ton	296,6	300,4	304,0	307,4	310,4
Ratio of the actual market volume to minimum volume, %	107,3	107,3	107,6	106,3	105,7
Consumption per capita, kg	33,8	33,8	33,9	33,5	33,6
Production per capita, kg	31,0	31,0	31,0	31,0	33,0
Indicator of the demand conformity to the proposal*	1,09	1,09	1,09	1,08	1,02
Self-ensuring level, %	92,4	92,4	94,7	87,9	84,7
Import dependency, %	8,1	8,1	5,6	12,1	15,5
Specific weight of meat in retail trade turnover, %	6,25	5,83	5,39	4,96	5,72

Source: author's calculations.

*- ratio of consumption per capita to production per capita and the actual or real volume (it was determined multiply by the quantity of the product consumed per capita per year in the country, the average annual list number of population) increased 1,0%. During the analyzed years, the actual volume of the meat and meat products market was almost at the minimum volume level of the market.

The research shows that the reserves of the butter market in recent years have not allowed ensuring the minimum volume of that market. So, in the case that minimum 62,7 - 65,7 thousand tons butter reserve is required on the country in 2013-2017, the actual reserve of this product was 52,2 thousand tons (83,3% of the required minimum reserve) in 2013, and 37,6 thousand tons (47,2 % of the required minimum reserve) in 2017. During this period, the butter reserve decreased 28,0 %.

The potential capacity of meat and meat products market (it was determined multiply by the effective physiological norm to these products of international organizations per capita during the year, the average annual number of population) has varied between about 655,9 – 687,7 thousand tons during the reviewed years. This indicates that, “saturation” rate (the percentage expression of the market's real capacity to its potential capacity) of meat and meat products market spend time and this is an indicator of full non-meeting of the demand of population for the aforementioned products. It should be noted that this indicator, i.e “saturation” rate of the market has varied between 47,7 – 48,5 % during the reviewed years. Hence, there are outstanding demands in the meat and meat products market and these demands are characterized as marketing opportunities of local consumers. “The concept of



determination of problem (or formation of problem) is used in the broadest meaning of that concept. It concerns not only the real situations, but all situations that are characterized as opportunities” [3, s.81].

In some cases, the high of demand for meat and meat products in Azerbaijan lead to the supply of low-quality and originally suspicious products to the market. Marketing researches has a great role in preventing such negative cases and improving the market, as well as defining demand in the future. “Further, the required quality of the product, also the current and future demand for that product may be only defined exactly and fully provided through marketing researches. The quality required shall be still provided in the market learning process, or more precisely, before product creation, as well as at all the next stages of its life cycle”[2, s.120-121].

Considering the minimum consumption norms of livestock products and the growth of the country’s population in future (considering the population number in 2005 – 2018, $Y=113,64 \cdot X + 8330,1$ predicted by the regression equation ($R^2=0,999$), here: Y – the number of population in thousand persons, X –number of years), the forecast of the minimum demand of the population in the perspective close to major types of livestock products is characterized by the following table data (Table 3).

Table 3. The forecast the minimum demand of the Azerbaijani population for major types of livestock products, in thousand tons

Items	2019	2020	2021	2022	2023
Meat and meat products	316,1	319,7	323,3	326,8	330,4
Milk and dairy products	2331,1	2357,5	2383,9	2410,3	2436,7
Fish	77,3	78,1	79,0	79,9	80,8
Egg, mln. pcs.	1535,3	1552,7	1570,1	1587,5	1604,9
Butter	67,2	68,0	68,8	69,5	70,3

Source: author's calculations

The potential capacity of products market shown in the table is much higher. Thus, for example the calculations show that the forecast of potential capacity of meat and meat products in Azerbaijan for the above mentioned years varies between 703,4 - 735,3 thousand tons (taking as a basis the efficient consumption norm of international organizations for meat and meat products).

It is very important to ensure that the capacity of meat and meat products, milk and dairy products, and fish products market increases at the expense of domestic production. It is of decisive importance in terms of ensuring the food safety of the country and qualitative (balanced) feeding of the population.

Result

Improvement of strain composition of the cattle existing in the various farms operating in the agrarian sector and development of the forage reserve on intensive basis can lead to the increase in the level for meeting of demand of the population of the country for livestock products. The purposeful works done in this field should be continued and farms with a sufficient good level of forage reserve of the cattle-breeding should be continued providing assistance in obtaining pedigreed cattle. In addition, problems that arise during districting of the pedigreed cattle given to individual farms (for example, prevention of illness of cattle, lack of some types of feeds) shall be settled operatively.



In order to prevent the expansion of foreign foodstuffs producers into the food market of Azerbaijan, the application of marketing in the processing and food industry enterprises using livestock products as raw materials should be given more space and marketing opportunities should be used skillfully to ensure the sustainability of production and sales activities. In order to study consumer satisfaction on livestock products, there is a need to carry out marketing research and conform products supplied to the market to demands of consumers. Such approach to carrying out of production and sales activities can enable enterprises and businesses to maintain and improve the market position in the long term.

Literature

Strategic roadmap on production and processing of agricultural products in the Republic of Azerbaijan. Decree dated 6 December 2016 of the President of the Republic of Azerbaijan.

Galeev M.M., O.S.Kibanova. The current state and development problems of external poultry meat markets// Prediction problems, Maik Nauka/Interperiodica Publishing. Moscow , № 4, 2014.

Gilbert Churchill A. Marketing research. – Saint Petersburg, 2000.

Mazloev V.Z., Semin A.N., Borovskikh N.V. Competitive Strategies of Agrarian Organizations – M.: Колос, 2009.
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The Provision of Education-Research and Innovation Unity is an Important Factor in Raising the Competitiveness of the National Economy

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Abstract

In modern period, our country has entered into one of the stages of economic development that has enhanced the competitiveness of the national economy, and its effective integration into the world economy which made the development of human capital an objective necessity, ensuring the unity of "Education-Research and Innovation".

Establishing a competitive environment in the country while addressing human capital development challenges requires the creation of an effective co-ordination system among different sectors of the national economy as well as a cluster approach at all stages of the "Science-innovation" system.

Analysis shows that in order to determine the priorities of human capital development for this purpose in Azerbaijan applying a perspective period, it is necessary to take into account the fact that it has historically formed its structure, scientific-technical, financial, personnel potential, infrastructure, as well as strategic directions of the national economy.

Keywords: *competitiveness, education, innovation, national economy higher education system*

Introduction

It should be pointed out that while interpreting the concept of raising the competitiveness of the country, Michael Porter writes: “Competitiveness is determined according to the productivity gained at the result of nation’s human, natural and capital resources” (Porter, 1993).

At the same time, this conception seems more pragmatic in Jeffry Saks’s approach. He indicates that competitiveness is determined by the coherence between the economic and institutional structure of the country as a whole, with the economic development framework and is selected by the regulatory policy and institutional structure promoting long-term development (Sak, 1995).

According to these approaches, the identification of the country’s potential competitive advantages with the expectation of optimum principles are of a great importance.

Being the relative conception, the competitiveness of the national economy appears during the comparative approach in this process. However, only the comparative analysis allows to reveal its potential competitiveness. The analysis shows that while evaluating the competitiveness of the national economy, first of all, favorable investment business environment should be created for ensuring the star privileges of the national economy development, in other words the balance of resources available to the country, the effectiveness of their utilization, the determination of potential for scientific and technological progress, and finally the superior development of priority areas.



It should be noted that the Higher Education System plays a decisive role in the preparation of qualified specialists, in the creation and effective application of new knowledge directly involved in the formation of human capital in the society.

However, the impact of human capital on its competitiveness is ultimately conditioned by the effective activity provision of the "science-education-production" chain in our country. This is largely depend on the use of innovative training methods in scientific research, extensive use of technology, as well as the creation and effective application of physical and technological infrastructure that meets world standards. In general, optimization of "education-science-production" relations has become an objective necessity for the establishment and improvement of the necessary institutional and normative-legal base of effective stimulating mechanisms to ensure wide use of information and communication technologies. The analysis also shows that in the last 15 years there have been quite positive developments in this direction in Azerbaijan. Thus, labor productivity has increased more than 3 times. It is known that competitiveness in the world practice is related to institutional, infrastructure, macroeconomic stability, genetic health, basic education or vocational education, quality of commodity and services market, labor market efficiency, financial market progress, technological degree, the size of domestic market, firm competitiveness and innovation potential are determined on the basis of 12 indicators. Azerbaijan ranked 3rd among developing countries for inclusive economic growth. In addition, in the global competitiveness report of the World Economic Forum (2017-2018), Azerbaijan ranks 35th by rising 2 steps. Raising the quality of education at all levels and stages, the application of modern management models, optimization, rationalization of educational institutions, as well as improving the material and technical base of education have been revealed in the main directions of the state strategy for the development of education in the Republic of Azerbaijan.

Sufficient human capital does not convert it a decisive factor of direct economic growth in any country. The main problem is to what extent its structure and quality are consistent with the system, requirements of the national economy and the favorable environment for its efficient implementation.

One of the main terms in determining the role of human capital in economic growth is its proper and objective assessment of its value. While assesing the value of human capital in the world practice, the results obtained on the basis of cost method, the index system, as well as the concrete terms of education and investment in science have been taken as a main problem.

The analysis shows that achieving a strong human capital development in a short period of time, in the country that has just overlapped the transitional period, is a challenge for raising it to the competitiveness level meeting the world standards. In order to solve this problem in the near future in our country, the development of human capital by applying research-innovation unity in the "Strategic Roadmap for National Economy Perspectives" has been defined as the main target and the main solution ways, the necessity to improve the legal and regulatory framework for the stimulation of this process (Strategic Roadmap, 2016).

While determining the priorities of the development of human capital in Azerbaijan, which implements the prospective period, it is necessary to take into account all its historical structure, scientific-technical, human potential, infrastructure, as well as perspective directions of development of the national economy. It is known that in the early years of independence, as a result of the implementation of the oil strategy in our country, a strong potential, experience gained and great economic outcomes have been achieved to ensure unity of "research-innovation", which has become the leading force in the development of the non-oil sector through synergetic effect . World practice shows that large companies and transnational companies have greater scientific, technical, institutional and financial capacities to ensure the unity of research and innovation. (Nikolayev and Litvina, 2015).



As a rule, small and medium-sized businesses are largely connected with large-scale scientific and technical and technological aspects, and are able to utilize the innovative capabilities of large companies in developed countries. It is also known that technical and technological linkage between small, medium and large entrepreneurship structures is in the low level in Azerbaijan. At the same time, modern economy is diversified, especially the main changes have been occurred in the structure of the non-oil sector. The specific weight of the non-oil sector in GDP amounted to 68 percent in 2018. The state provides strong economic, financial, political and moral support to entrepreneurs in our country for the development of human capital in the non-oil sector in such a situation,

At the republican conference of non-oil exporters, President Ilham Aliyev said: “We will develop our economy only through reforms, innovations, technologies and non-oil sector with the transition to a new model of development.” Of course, successful implementation of all tasks requires decisive training of highly qualified personnel capable of effectively working in this area, meeting international standards.

While concretely estimating the role of human capital in socio-economic development, the changes taking place in its structure should be taken into consideration. Individuals, firms, and human capital indicators of the national economy differ in their essence. Thus these three indicators of human capital are formed under the influence of different factors and conditions. It should be noted that, unlike the company’s human capital, the level of human capital development at the national level is strongly influenced by social, political capital, national competitive advantages, national mentality, and national economic thinking. In this regard, the creation of progressive production areas in our country, identifying priorities must be determined by co-ordinating with the scope, structure, quality of existing human capital and the existing infrastructure.

It should be noted that the creation of university clusters in the education system of Azerbaijan for ensuring personnel training in accordance with the labor market, as well as the international qualifications classification, will significantly increase the effectiveness of this process.

Taking into consideration the importance of the role of education in the development of the country’s national economy in the modern times, there is a need for a sharp increase in investment in this area. Practice shows that it is very difficult to solve this problem only at the expense of public finances. From this point of view it is necessary to create and implement the necessary environment and mechanism stimulating private business structures to encourage wide participation of Venture Capital in investment of science (Ahmadov and Huseyn, 2017).

Development of human capital should not be overlooked, as well as a substantial expansion of the opportunities to create value added to the country’s economy.

The research suggests that the development of human capital in the near future by promoting the combination of "education - innovation" requires the implementation of the following 5 areas of the state’s economic policy in order to increase competitiveness at all levels.

Enhancing competitiveness by providing education- research- innovation, forming and implementing innovation-oriented investment policies;

Establishment of appropriate infrastructure for ensuring competitiveness in our country implementing a perspective;

To formulate a national innovation system that meets world standards for ensuring competitiveness and efficiency of national economy in Azerbaijan



sharp increase in the specific weight of intellectual property of the country's gross domestic product for ensuring a stable competitiveness of the national economy;

requires institutional changes in accordance with changing conditions and requirements of market;

Generally, the results of more than 35 research works in Azerbaijan were applied to production in 2018, and scientists and experts were given 142 patent, including 108 local, 36 foreign natural and legal persons on inventions, utility models and industrial designs and 1450 scientific research works were conducted on 160 problems. It should be noted that in recent years, serious affairs have been carried out to ensure unity of research and innovation in the Azerbaijan State University of Economics, UNEC, and transform it into research university in the future. So, in order to improve the quality of scientific research work carried out at the university, to strengthen their practical and innovative character, as well as to integrate the whole educational process, teaching materials to innovative knowledge, to address the actual problems identified in the strategic road map of the doctoral, dissertators and master dissertation topics, and logical work is being done, a system of measures has been identified. At the same time, the activity of the "Institute for Economic Research", "UNEC Business School" (MBA) and the establishment of the "Innovative Business Incubator" for the first time in the country should be regarded as a very important step in this direction. Generally, the development and adoption of a strategy for raising competitiveness based on the development of human capital on the basis of unity of "education-research-innovation" is a prerequisite for its real development. The main problem is that the implementation mechanism of this strategy is consistent with the current economic reality of our country and to what extent the progressive world experience is. From this point of view, laws related to human development should take into consideration the current, perspective goals and opportunities for solving tasks, with legislative considerations having a strong intellectual load.

References

- Michael Porter "International Competition", Moscow, 1993
Jeffrey Sak "Economic Convergence and Economic Policy" 1995
http://azertag.az/store/files/untitled%20folder/_STRATEJI%20YOL%20XERITESI_.pdf Strategic Roadmap for the Republic of Azerbaijan's National Economy Perspective
Nikolayev, O.V., Litvina, N.I. "Innovative Economics: Slowness, Individual Capital, Graceful Opportunity" / LAP Lambert Academic Publishing, 2015. - 172 c.
Ahmadov, M.A., Huseyn, A.C "The economic policy of the state" Baku 2017



Sport Imagery Ability Questionnaire Adaptation

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Abstract

The aim of the study is to adapt the Sports Imagery Ability Questionnaire (SIAQ) in the Latvian sports environment. SIAQ was completed by 220 Latvian athletes. It is designed to measure and assess the athletes' ability to imagine a variety of different circumstances. The following research methods were used: research and analysis of literature sources, SIAQ, mathematical statistical methods. Internal reliability was assessed using Cronbach's Alpha (CR). Through assessment of the five subscales of SIAQ adaption to the Latvian language (skill, strategy, goal, affect and mastery), the results demonstrated adequate CR. To determine the validity factor analysis was performed. SIQA Latvian adaption has five factors. Test-retest was carried out with interval of two weeks in between, in order to determine temporal reliability of questionnaire. The Latvian version has an acceptable temporal reliability ($p < 0.05$). The results indicate that the SIAQ Latvian adaption measures imagery ability with respect to five types of imagery content. Reliability and validity of the Latvian version of SIAQ is adequate with the psychometric structure of the original version. Therefore, the SIAQ Latvian adaptation can be used for intercultural research of athletes' imagery abilities in sport science as well as for practical use in sports environment.

Keywords: Sport imagery abilities, adaptation, reliability and validity.

Introduction

Imagery in sport is the ability to create an image or series of images related to the sport. Imagery includes all the use of all senses to create or recreate an experience from an event and use this mental feeling to better prepare oneself for a competition. Similarly, imagination is useful to improve the technical performance elements or to correct errors (Cumming & Ramsey, 2009; Slimani et al., 2016). Using imagination athletes create and experience situations that are similar to real life, by repetition an athlete can develop sensory reflexes that will help to boost the performance in trainings and competitions. Imagery as a sport skill is similar to any performing skill. Athletes also use this skill to play out scenarios, during or after competitions (Filgueiras & Hall, 2017).

For some athletes, the use of imagery is usually unstructured and can be without a specific purpose. However, imagery is more than an athlete's spontaneous thoughts. Cooley et al., (2013) suggests that the true value of imagery lies in its use as a structured program that includes scripts that are designed to improve what the athlete



wants to improve. Williams et.al, (2013) are of the opinion that in the process of imagery, the scripts are created as a detailed scenario that highlights physical aspects of the athlete, competition, circumstances, specifics of performance and other areas that are important for the athletes' performance.

Without strict control of imagery, athletes can make the same mistakes in their imagination. Such imagination is not productive and has a negative impact on the athletes' performance. The main importance of imagery is that it allows to visualize the result of the performance before it is done. This helps to guide athlete in the process of action.

Cumming and Williams (2013) acknowledges that imagery can also be used to create a new experience in its own thoughts. In creating a new experience with the help of imagery, it is important to visualize the desired as accurately and realistic as possible. In order to experience and restore the events in imagery, it is important to involve all senses. Schack et al., (2014) agree and suggest that mental imagery can also include movement, vision, sounds, touch, smells and taste, as well as emotions, thoughts and actions.

Simonsmeier and Buecker (2017) explain that imagery can help improve to focus the attention, increase self-esteem, help athletes in case of pain, injuries and fatigue. In thought athletes can revive past experiences, events, sensations, etc., that can be used to prepare for competitions. There is a number of evidence of improvement in athletes' performance because the imagery is able to improve the main mental factors that determine athletic performance.

The use of imagery in the training process can provide great efficiency in improving athletes' performance and, moreover, reducing negative stress. Several studies have shown that imagery has a strong tendency to improve athletes' results, reduce anxiety, improve concentration and self-esteem. Imagery is the most common psychological method that is used to improve the performance of athletes in competition situations. Imagery in sport is used to motivate athletes. A great influence on the use of imagery is related to athletes' personality and athletic mastery. Research shows that athletes with high self-confidence in training and competitions use imagery significantly more. It also explains the importance of imagery use to personal development which has a positive effect on athletic performance (Munroe-Chandler & Guerrero, 2017; Sari, 2015).

Studies on the use of the imagery have shown that it is more used during the competitions and less in the training process. Particularly important is that the use of imagery is before start. It has also been proven that high-level athletes have had a significantly greater effect on the use of imagery than less experienced athletes (Parnabas, Parnabas & Parnabas, 2015). The effectiveness of the imagery depends on the methodology and frequency of imagery. It is important to pay attention to the specifics of the sport in order to choose the method of imagery and its application. In general, previous studies have shown that the use of imagery for athletes has helped to achieve the desired goals in different sports. Mostly, the research emphasizes that the imagery alone is not as effective as it is with physical training.

The world's best athletes have very well developed imagery skills. They use imagery every day to prepare themselves for competitions, to improve skills during training, to make adjustments in technical performance and to imagine success, thereby strengthening their confidence for higher achievements. Imagery helps create a positive action model. It can strengthen self-confidence and help to believe that the athlete is able to make its best performance real sport situation. By combining quality imagery training with qualitative physical training it is possible to increase the overall performance of the athlete and to bring the athlete closer to the goal.

Athletes engage in imagery for many different purposes. The abilities of each athlete have individual differences that can affect learning, achievements and cognitive skills. Researchers and sports specialists who work with



athletes cannot control their imagery and their previous experience. It may be possible to predict athletic performance from variations in imagery ability. When athletes increase the use of their imagery, the ability improves. With strong imagery skills athletes are able to create vivid and controlled images. Increasing the vividness of an image is like focusing a camera (Gregg & Hall, 2018; Watt, Klep & Morris, 2018).

The main purpose of this research was to adapt SIAQ to the Latvian sport environment. This questionnaire would be the first translated instrument in the Latvian language that could measure and provide reliable information about the athletes' imagery abilities.

Methods

The study is made out of 220 athletes from the Latvian Academy of Sport Education (females and males). The arithmetic mean age is 21.4 years, ranging from 19 to 35 years. The athletes that took part in the study are from various kinds of sports and have been involved with organized sport form 9.5 years on average.

Sport Imagery Ability Questionnaire (SIAQ) was developed by Williams and Cumming (2011) and it is based on Hall constructed Sport Imagery Questionnaire (SIQ). It is design to measure the ability to imagine different situations that athletes frequently experience in sport. Although SIAQ is a useful tool for sport psychology researchers, its application in non-native countries require that it is translated into other languages and also its psychometric characteristics are assessed in different cultural context. Researchers from different countries have already adapted and developed various versions of SIAQ. It is recognized as the most accepted instrument that can determine imagery abilities. The questionnaire is used to assess imaginative abilities for a particular sport and provide cognitive and motivational imagery abilities in order to compare imagery level. It is widely used by coaches and sport psychologist to assess an athlete's imagery abilities of sport specific content, as well as monitor how imagery abilities may change over time.

The SIAQ consists of 15 situations to assess imagery abilities and arrange them into five subscales: Skill imagery ability (the ability to imagine yourself in a training environment to learn and perform new technical exercises, improving and developing specific physical and technical skills); Strategy imagery ability (ability to see a good performance and positive competition scenario, analysing outcomes and creating alternative solutions, finding the best solution to ensure the best performance); Goal imagery ability (ability to see yourself as a winner); Affect imagery ability (ability to feel and recall the positive emotions that are connected with the sport); Mastery imagery ability (ability to maintain self-confidence and fighting spirit through difficult situation, staying goal oriented after failures).

The following research methods were used: questionnaire (SIAQ), mathematical statistics: Varimax rotation - to determine the structure of the questionnaire; KMO Measure of Sampling Adequacy and Bartlett Sphericity tests – to determine research groups match with factor analysis; Cronbach's Alpha coefficient - to determine internal consistency of questionnaire and its subscales; Factor analysis – to determine correlation various sets of data; Pearson Correlation coefficient – to measure temporal reliability.

Findings

In order to adapt the SIAQ tool to Latvian environment a back-translation procedures and expert reviews were used. The first questionnaire was forward and backward translated by a professional translator. The backward translation's accuracy and face validity was confirmed by experts and necessary corrections were made. After the backwards translation the first Latvian version of SIAQ was given to athletes. All respondents anonymously filled out the translated Latvian version of SIAQ. They were asked to complete the questionnaire by giving an assessment to each subject, as well as, to fill in personal information: age, sport, athletic level, sports experience



and achievements. At the end the data were collected and analysed using data analyses. The SIAQ adaptation to Latvian environments was carried out in two stages (view figure 1).

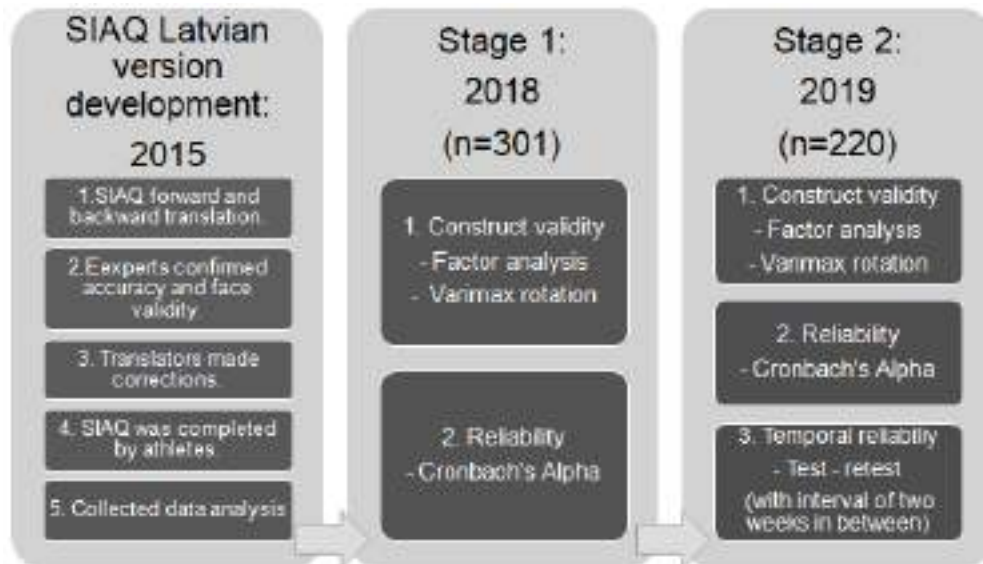


Figure 1. Aadaptation procedure of the SIAQ Latvian version

In the first stage together were collected 353 completed questionnaires. From all collected questionnaires 301 were useful and appropriate for further analysis. Following construct validity (by using factor analysis and Varimax rotation) and reliability (by using Cronbach's Alpha coefficient) of SIAQ Latvian version was determined. The results from the SIAQ Latvian adaptation indicated five subscales just like in the original version of the questionnaire. However, one item did load onto different factor. Item 15 "Remaining confident in a difficult situation" did load into strategy imagery subscale. In the original version, this item is in mastery imagery subscale. This can be accounted to the athlete associating item 15 with competitions rather than their mastery skills. Based on obtained results translation adjustment of item 15 was carried out to provide a more accurate understanding of the item in the Latvian language.

In the second stage, the adjusted Latvian version of SIAQ was given to athletes. Together 220 questionnaires were collected and analysed. The construct validity and reliability of SIAQ Latvian version were determined using data analyses. As a result it was concluded that the SIAQ Latvian version has the same five factor structures as in the original version. After the same structure as the original version was gained test-retest was carried out with an interval of two weeks in between in order to determine temporal reliability.

The results from the SIAQ Latvian adaptation indicated five subscales just like in the original English version of the questionnaire. All 15 items correspond to subscales matched the original version. The developed questionnaire is focused on Latvian athletes from different sports. Translation of the SIAQ Latvian adaptation is aligned with the context of the original version and it ensures cultural understanding of Latvian language. Obtained results are equivalent to the results of other studies that have been carried out in other countries.

In previous studies based on researched literature sources of imagery in sport, SIAQ obtained results and on the basis of practical experience, we developed and approbated 10 guided imagery exercises for the development of imagination in training process for alpine skiers. The developed exercises were used in training, competition and after-competition process during. In practice, the imagination exercises have produced positive results for



athletes. The imagery exercises in training process help athletes to recognize and highlight their strengths and reduce weaknesses. It does not only help to regulate anxiety which athletes are experiencing during the race, but also helps to gain self-confidence, focus and become mentally strong. Athletes can use imagination in setting closer and further goals and to increase motivation of both in daily workouts and further sporting activities. (Volgemute, Krauksta & Vazne, 2016). After the application of guided imagery exercises athletes imagery abilities increased. Athletes general imagery abilities improved and the positive changes were reliable. The developed and implemented guided imagery exercises made a positive impact on the athletes' imagery abilities. According to the SIAQ results it was shown significant relationships also with athletes training results. Athletes did improve imagery abilities in addition to improving training results.

Previous research has supported the factorial validity and reliability of the SIAQ. The SIAQ is currently available in English, German, Persian and Spanish, as well as, it is being translated into other languages. A Persian version of SIAQ demonstrated four factor structures where factors "skill" and "strategy" were considered as one subscale (Ashrafi, Talab & Shojaei, 2015). Spanish version of SIAQ demonstrated replication of the originals version 5 factor structure (Alcaraz-Ibanez et.al., 2017). And German version of SIAQ demonstrated similar factor structure to the original SIAQ version with equal psychometric properties (Simonsmeier & Hannemann, 2017). Latvian adapted version of SIAQ focused on measuring an athlete's ability to generate imagery content. SIAQ is useful to evaluate athletes in Latvian speaking cultural environment. This questionnaire can be used in practice by sport psychologists and researchers to investigate imagery abilities of athletes. Imagery is one of the most commonly used psychological methods. Based on the results of the study, Latvian sports specialists will have the opportunity to use a specific instrument when working with imagery and mental skills. The acquired knowledge of the specifics of imagery usage can help to design and implement personalized imagery training.

Results, Conclusions and Recommendations

Cronbach's Alpha coefficient was used to determine internal consistency of the questionnaire and its subscales. According to Cronbach's Alpha coefficients of the Latvian version for all the subscales of the questionnaire have an acceptable internal consistency and a high common questionnaire result of Cronbach's Alpha which is 0.87 (view tab. 1).

Table 1. Internal consistency of the SIAQ Latvian version

Subscale	Cronbach's α coefficient
Skill	0.73
Strategy	0.62
Goal	0.62
Affect	0.68
Mastery	0.75
Global	0.87

The research group match with factor analysis was determined with Kaiser-Meyer-Olkin (KMO) Measure of sampling adequacy and Bartlett's tests. The KMO value is $0.878 > 0.7$. From obtained data it was concluded that all the necessary assumption for factor analysis was met.

In the analysis of using extraction method (Extraction Method: Principal Component Analyses) it was showed that items of the Latvian version of SIAQ constitute 65.352 % of the variances. The first component explains 36.36%, the second component - 8.73%, the third component - 7.81%, the fourth component – 7.07% and the



fifth component - 5.38%. The results show that 5 factor structures can be obtained. The scree plot also pointed out that the Latvian version of SIAQ can have 5 factors (view tab.2).

Table 2. Total variance explained of the SIAQ Latvian version

Extraction Sums of Squared Loadings		
Total	% of Variance	Cumulative %
5.454	36.360	36.360
1.309	8.728	45.088
1.171	7.810	52.898
1.061	7.072	59.969
.807	5.383	65.352

The Principal Component Analysis pointed out that the 15 items of the 5 factor structure found in the original version were also replicated in the Latvian version of SIAQ adaption (view tab. 3).

Table 3. Factor loadings of the SIAQ Latvian version

Item	Skill Images	Strategy Images	Goal Images	Affect Images	Mastery Images
Refining a particular skill	.824				
Improving a particular skill	.750				
Making corrections to physical skills	.582				
Making up new plans/strategies in my head		.676			
Alternative plans/strategies		.713			
Creating a new event/game plan		.573			
Myself winning a medal			.529		
Being interviewed as a champion			.792		
Myself winning			.634		
The positive emotions I feel while doing my sport				.583	
The anticipation and excitement associated with my sport				.709	
The excitement associated with performing				.710	
Giving 100% effort even when things are not going well					.802
Staying positive after a setback					.842
Remaining confident in a difficult situation					.487

The SIAQ Latvian version contains 15 out of 15 items and 5 out of 5 subscales of the original questionnaire. From obtained data it can be concluded that item 3 (.824), item 8 (.750) and item 12 (.582) correlate strongly and positively with the first factor which is “Skill imagery ability”. Items 1 (.676), 6 (.713) and 13 (.573) correlate positively with the second factor “Strategy imagery ability”. Items 5 (.529), 9 (.797) and 14 (.634) makes the third factor “Goal imagery ability”. Items 4 (.583), 7 (.709) and 11 (.710) also correlate positively with the forth factor “Affect imagery ability”. Items 2 (.802), 10 (.842) and 15 (.487) correlate strongly and positively with the fifth factor “Mastery imagery ability”.

Pearson correlation coefficient was calculated to establish test-retest reliability. According to Pearson correlation coefficients of the Latvian version for all the subscales of the questionnaire have an acceptable temporal reliability and coefficient for common questionnaire result is 0.79 (view tab. 4).

Table 4. Temporal reliability of the SIAQ Latvian version

Subscale	Persons correlation coefficient
Skill	0.51
Strategy	0.69



Goal	0.69
Affect	0.63
Mastery	0.56
Global	0.79

All obtained data from this study indicate that developed questionnaire has an adequate reliability and validity to be used in Latvian environment.

By assessing the five subscales of SIAQ Latvian adaption (skill, strategy, goal, affect and mastery) a deduction can be drawn, demonstrating adequate Cronbach's Alpha values ranging from 0.62 to 0.87. The SIAQ original version demonstrated similar Cronbach's Alpha values which ranged from 0.76 to 0.86.

The Principal Component Analysis pointed out that SIAQ Latvian adaption has five factors with eigenvalues, together accounting for 65.35% of the variance. The SIAQ Latvian version has the same five factor structure as in the original version. The first factor is "Skill imagery ability" which includes items 3, 8 and 12. The second factor is "Strategy imagery ability" including items 1, 6 and 13. The third factor is "Goal imagery ability" which includes items 5, 9 and 14. The fourth factor is "Affect imagery ability" including items 4, 7 and 11. And the fifth factor "Mastery imagery ability" is including items 2, 10 and 15. Slightly different factor loading values were observed when comparing the original version (0.62-0.88) and Latvian version (0.49-0.84). All factor loadings of SIAQ Latvian version are within acceptable limits.

Test-retest results demonstrated temporal reliability of the SIAQ Latvian adaption over a two-week period. As a result it can be concluded that the SIAQ Latvian adaption has adequate validity and the factorial validity indicators ($p < 0.05$).

The results indicate that the SIAQ Latvian adaption measures imagery ability with respect to five types of imagery content ($p < 0.05$). Therefore, the developed questionnaire has an adequate reliability and validity to be used in Latvian environment.

The Latvian version of SIAQ is a useful tool to evaluate athletes' imagery abilities in the Latvian environment. It can be used as a screening tool for research in sport to investigate and identify athletes' imagery abilities. Also, SIAQ Latvian adaptation can be used as a scoring tool to measure imagery abilities before and after intervention in order to determine the effectiveness of intervention on imagery abilities. As an evaluation tool, SIAQ can provide important information about differences in imagery abilities between athletes. SIAQ Latvian version can be a valuable addition to research that provides the opportunity to compare imagery abilities differences across countries and cultures.

The results from SIAQ Latvian adaptation should encourage sports psychologists and researchers to investigate the measure in the future. Latvian version of SIAQ measures imagery abilities in sports and it is suggested that in the future studies in sport contexts.

References

- Alcaraz-Ibanez, M., Manuel Aguilar-Parra, J., Alias Garcia, A., & Rodriguez Martinez, A. (2017). Spanish Adaptation And Validation Of The Sport Imagery Ability Questionnaire. *Revista Mexicana De Psicologia*, 34(1), 65-76.
- Ashrafi, S. V. S., Talab, R. H., Shojaei, M. (2015). Validity and reliability of Persian version of the Sport Imagery Ability Questionnaire. *International Journal of Sport Studies*, 5(4), 482-487.



- Cooley, S. J., Williams, S. E., Burns, V. E., Cumming, J. (2013). Methodological variations in guided imagery interventions using movement imagery scripts in sport: A systematic review. *Journal of Imagery Research in Sport and Physical Activity*, 8(1), 13-34.
- Cumming, J., Ramsey, R. (2009). Imagery interventions in sport. *Advances in applied sport psychology: A review*, 5-36.
- Cumming, J., Williams, S. E. (2013). Introducing the revised applied model of deliberate imagery use for sport, dance, exercise, and rehabilitation. *Movement & Sport Sciences-Science & Motricité*, (82), 69-81.
- Filgueiras, A., Hall, C. R. (2017). Psychometric properties of the Brazilian-adapted version of Sport Imagery Questionnaire. *Psicologia: Reflexão e Crítica*, 30.
- Gregg, M., Hall, C. (2018). Imagery as a skill: Longitudinal analysis of changes in motivational imagery. *Imagination, Cognition and Personality*, 37(4), 448-457.
- Munroe-Chandler, K. J., Guerrero, M. F. (2017). Psychological imagery in sport and performance. *Oxford Research Encyclopedia of Psychology*, 13, 1-28.
- Parnabas, V., Parnabas, J., Parnabas, A.M. (2015). Internal and external imagery on sports performance among swimmers. *European Academic Research*, 2(11), 14735 - 14736.
- Sari, I. (2015). An investigation of imagery, intrinsic motivation, self-efficacy and performance in Athletes. *The Anthropologist*, 20(3), 675-688.
- Schack, T., Essig, K., Frank, C., & Koester, D. (2014). Mental representation and motor imagery training. *Frontiers in human neuroscience*, 8, 328.
- Simonsmeier, B. A., Buecker, S. (2017). Interrelations of imagery use, imagery ability, and performance in young athletes. *Journal of Applied Sport Psychology*, 29(1), 32-43.
- Simonsmeier, B. A., & Hannemann, A. (2017). Die deutsche Übersetzung des SIQ und SIAQ zur Erfassung von Vorstellungsgebrauch und Vorstellungskompetenz im Sport. *Zeitschrift für Sportpsychologie*, 24(3), 100-110.
- Slimani, M., Chamari, K., Boudhiba, D., Chéour, F. (2016). Mediator and moderator variables of imagery use-motor learning and sport performance relationships: a narrative review. *Sport Sciences for Health*, 12(1), 1-9.
- Volgemute K., Krauksta D., Vazne, Z. (2016). Visualization exercises in alpine skiers training process. *LASE Journal of Sport Science*, 7(2), 63-70.
- Watt, A., Klep, D., Morris, A. (2018). Psychometric analysis of the sport imagery ability measure. *Journal of Physical Education and Sport*, 18(1), 138-148.
- Williams, S. E., Cooley, S. J., Newell, E., Weibull, F., Cumming, J. (2013). Seeing the difference: Developing effective imagery scripts for athletes. *Journal of Sport Psychology in Action*, 4(2), 109-121.
- Williams, S. E., Cumming, J. (2011). Measuring Athlete Imagery Ability: The Sport Imagery Ability Questionnaire. *Journal of Sport & Exercise Psychology*, 33(3), 416-440.



The Role of Education on Sustainability of Economic Growth: Evidence from Countries Participated in PISA

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Abstract

This study aims to analyze the relations between education and economic growth by using quantitative and qualitative education indicators in the countries participating in PISA tests, which are accepted as an international reference in the field of education. For this purpose, the effects of quantitative and qualitative education indicators on economic growth in the participating countries of PISA tests are analyzed econometrically within the framework of panel data analysis methodology considering the cross-sectional dependence for the 1995-2017 period. As a result of the study, it was determined that the long-term effects of quantitative and qualitative education indicators on economic growth were positive and statistically significant in the participating countries of PISA tests during the period that was analyzed. However, it was found out in the study that the magnitude of long-term and positive effects of quantitative and qualitative education indicators on economic growth increased in parallel with the success levels of participating countries of PISA.

Keywords: Sustainable Growth, Education, PISA, Panel Data Analysis.

1. Introduction

It is generally accepted that the studies on the effects of education on economic growth started in the 1960s with the work of Schultz (1961) and Denison (1962) within the scope of Neo-Classical growth theories. In these studies conducted on the United States of America (USA), it was confirmed that education directly contributed to the increase of national income in the USA by increasing the skills and productivity of the labor force. At the point where the literature, started by the works of Schultz (1961) and Denison (1962), has reached today, the effects of education on economic growth are studied within the scope of Endogenous growth theories, led by Romer (1986) and Lucas (1988). In the studies conducted for developed and developing countries within the scope of endogenous growth theories since the 1990s such as Barro (1990), Romer (1990), Grossman and Helpman (1989), and Aghion and Howitt (1992), it was stated that the education led to the availability and sustainability of economic growth.

In this context, the human capital, which is equipped with education in both Neo-Classical and Endogenous growth theories, is considered to be one of the most important factors affecting economic growth. In the studies conducted within the scope of Neo-Classical and Endogenous growth theories, the human capital level of national economies can be measured through various quantitative and qualitative education indicators. Indicators such as the number of enrolled/graduated students at different education levels (primary, secondary and higher education), average/expected schooling rates/ duration of education, education expenditures, etc. are among the quantitative indicators demonstrating the human capital level through education. Indicators such as yield ratios at different education levels (primary, secondary, and higher education), grade repetition rates, student-teacher rates, results of international tests conducted by organizations such as PISA (Programme for International Student Assessment) and TIMSS (Trends in International Mathematics and Science Study), OECD (Organisation for Economic Co-Operation and Development), and IEA (International Association for the Evaluation of



Educational Achievement) are regarded among the qualitative indicators demonstrating the human capital level through education.. Among these indicators, PISA is considered as one of the biggest educational studies in the international arena in recent years, evaluating the knowledge and skill levels of 15-year-old students in fields such as Mathematics, Science, and Reading Skills. Owing to this study conducted every three years since 2000, the extent of basic knowledge and skills necessary to take place in modern society is assessed for 15-year-old students in the participating countries.

From this perspective, this study aims to empirically analyze the effects of education on economic growth by using quantitative and qualitative education indicators in the participating countries of PISA tests, which are accepted as an international reference in the field of education. For this purpose, in this study, the effects of quantitative and qualitative education indicators on economic growth in the participating countries of PISA tests are analyzed econometrically within the framework of panel data analysis methodology considering the cross-sectional dependence for the 1995-2017 period. In the second part of the study, data of the study is introduced, and its scope is explained. In the third chapter, the econometric methodology of the study is explained in a brief manner and the findings are presented. The study is completed with the fourth chapter in which findings of the study are discussed.

2. The Scope and Data of the Study

In this study, the effects of quantitative and qualitative education indicators on economic growth in the participating countries of PISA tests are analyzed econometrically within the framework of panel data analysis methodology considering the cross-sectional dependence for the 1995-2017 period. (While determining the 1995-2017 period as the period to be analyzed, the fact that data belonging to that period could be provided from the related databases without any interruption for all the countries was the decisive point.) The variables used in the econometric analysis of the study and their sources are explained in Table 1.

Table 1: Description of Variables Used in Analyses

Abbreviations for the Variables	Definitions of the Variables	Data Sources of the Variables
RGDP	Real Gross Domestic Product (2010-USD).	The World Bank-WB (World Development Indicators-WDI-2019).
RGFI	Real Gross Fixed Capital Investments (2010-USD).	
EL	Employed Labor	Penn World Table (PWT Version 9.1-2019).
TFP	Total Factor Productivity	
EI-1	Education Index-1	United Nations Development Programme (UNDP Human Development Data-2019).
EI-2	Education Index-2	

The RGDP variable used in the study was taken as real GDP per capita (2010) values at US dollar (USD) prices from the WB database for all the PISA-participating countries. The RGFI variable was calculated in per capita values by proportioning the series of real fixed capital investments obtained from the WB database at 2010-USD prices to the series of the mid-year total population for all countries participating in PISA. The EL variable was calculated by proportioning the series of employed labor in per mille, obtained from the PWT database to the series of the mid-year total population for all countries participating in PISA. The TFP variable was formed in a comprehensive manner considering the differences in quantity and quality of physical and human capital accumulation by taking the year 2011 as the base year and calculating it in national prices-currencies. The data was received from the PWT database for all the countries participating in PISA. The educational variable, EI-1 was taken from the PWT database for all the countries participating in PISA as education index data calculated in terms of per capita values based on the average schooling year of the working-age population at different education levels (primary, secondary, and higher education) and the yield ratios at the same education levels. The educational variable, EI-2 shows the education index, taken as a sub-component of the Human Development



Index from the UNDP database for all the countries participating in PISA. Using education indices such as EI-1 and EI-2 in the study is due to the fact that these indicators are calculated in numerous indicators representing both quantitative and qualitative dimensions of education and that they could be provided without interruption for the period that was analyzed.

In the study, countries participating in PISA tests are divided into 3 different groups according to their success rate. The first group, PISA-1, is composed of 26 countries and includes the countries that have scored statistically and significantly higher than the OECD average in at least one of the following fields (Mathematics, Science, and Reading Skills) in all PISA tests in which they have participated since 2000 and that are considered to be successful. (Countries in the PISA-1 group: Australia, Austria, Belgium, Canada, China, Denmark, Estonia, Finland, France, Germany, Hong Kong-SAR, China, Ireland, Japan, Republic of Korea, the Netherlands, New Zealand, Norway, Poland, Portugal, Singapore, Slovenia, Sweden, Switzerland, Great Britain, Czech Republic, Iceland). PISA-2 group, which consists of 38 countries, include the countries that have scored statistically and significantly lower than the OECD average in all the following fields (Mathematics, Science, and Reading Skills) in all the PISA tests in which they have participated since 2000 and that are considered to be unsuccessful. (Countries in the PISA-2 group: Argentina, Brazil, Bulgaria, Chile, Colombia, Costa Rica, Croatia, Dominican Republic, Greece, Hungary, India, Indonesia, Israel, Italy, Jordan, Kazakhstan, Republic of Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mexico, Moldova, Peru, Romania, Russia, Slovakia, Spain, Thailand, Turkey, Tunisia, United States, Uruguay, Cyprus, Panama, Serbia). PISA-3 group, which consists of 64 countries, is composed of all the countries that have participated in PISA tests since 2000 at least for one year, regardless of their success rate.

3. Econometric Methods and Findings of the Study

In the study, in order to analyze the quantitative and qualitative effects of education indicators on economic growth in countries participating in PISA tests, within the scope of panel data analysis considering the cross-sectional dependence and econometric models are presented below for the 1995-2017 period in the following equations:¹

$$\text{Model-1: } RGDP_{it} = \alpha_{it} + \beta_1 RGF_{it} + \beta_2 EL_{it} + \beta_3 TFP_{it} + \beta_4 EI - 1_{it} + \varepsilon_{it} \quad (1)$$

$$\text{Model-2: } RGDP_{it} = \alpha_{it} + \beta_1 RGF_{it} + \beta_2 EL_{it} + \beta_3 TFP_{it} + \beta_4 EI - 2_{it} + \varepsilon_{it} \quad (2)$$

Of the terms showed in the model, (α) indicates the fixed parameter (β) is the slope parameter whereas (i) indicates the horizontal cross-sectional dimension of the panel; and (t) the time dimension of the panel. In the study, the models defined on PISA-1, PISA-2, and PISA-3 groups are estimated using panel data analysis methodology considering the cross-sectional dependence at mainly five stages. In this context, since the presence of the cross-sectional dependence directs the econometric methodology in variables/cointegration equations of defined models, first of all, the presence of the cross-sectional dependence in variable/cointegration equations of models should be examined using the CD-LM tests and the consecutive tests, which are necessary to use in the following stages of analyses, should be determined (Menyah et al., 2014: 390-91).

In the study, the presence of cross-sectional dependence in variables/cointegration equations in defined models on the PISA-1, PISA-2, and PISA-3 groups is analyzed Pesaran (2004) using the CD-LM-2 and CD-LM Pesaran adj test statistics developed by Pesaran (2004) and Pesaran et al. (2008) and it is concluded that the cross-sectional dependence is present in cross-sectional units in PISA groups panel. (These results obtained due to the fact that the probability values of the CD-LM-2 and CD-LMadj test statistics calculated for variables in defined models on the PISA-1, PISA-2, and PISA-3 groups and co-integration equations are less than 0.01 can be seen in

¹ Gauss 18.0 and Stata 15.0 econometrics software packages are used in the estimation of models described in the study.



Table 2 presented in the Appendix). This demonstrates that variables in the defined models on the PISA-1, PISA-2, and PISA-3 groups, and the cross-sectional units in cointegration equations are interdependent and that it is necessary to use panel data analyses considering this dependence (Baltagi, 2008: 10-12).

Accordingly, the stationarity of variables in defined models on the PISA-1, PISA-2, and PISA-3 groups is analyzed using the CADF-Cross-Sectional Augmented Dickey Fuller and Panic-CA-Panic on Cross-Section Averages panel unit root tests, developed by Pesaran (2007) and Reese and Westerlund (2016) respectively considering the cross-sectional dependence and it is concluded that all variables are stationary in terms of their differences. (These results obtained due to the fact that the absolute values of test statistics calculated for variables in defined models on the PISA-1, PISA-2, and PISA-3 groups in the first difference are greater than the critical table values for the significance level of 0.01, can be seen in Table 3 presented in the Appendix.).

After determining that all variables in defined models on the PISA-1, PISA-2, and PISA-3 groups are stationary in their first differences, possible long-term integrated relationships among model variables should be studied using cointegration tests. The long-term relationships among variables in defined models on the PISA-1, PISA-2, and PISA-3 groups are analyzed using the LM and DH panel cointegration tests developed by Westerlund and Edgerton (2007) and Westerlund (2008) respectively, considering the cross-sectional dependence and it is concluded that all defined models on groups are co-integrated. (These results obtained due to the fact that the test statistics calculated for variables in defined models on the PISA-1, PISA-2, and PISA-3 groups are greater than critical table value (1.65) for the significance level of 5%, can be seen in Table 4 presented in the Appendix.)

It is important to estimate the long-term coefficients using appropriate methods after determining that variables in defined models on the PISA-1, PISA-2, and PISA-3 groups are cointegrated. However, since all defined models on the PISA-1, PISA-2, and PISA-3 groups have cross-sectional dependence, the long-term effects of education on economic growth is analyzed using the Panel CCE (Common Correlated Effects) and Panel DCCE (Dynamic Common Correlated Effects) estimators, which were developed by Pesaran (2006) and Chudik and Pesaran (2015) respectively and can be used in case of cross-sectional dependence in cross-sectional units of the panel. When findings in Table 5, presented in the Appendix, are analyzed in terms of independent variables being the main determinants of economic growth, it is observed that the coefficients of RGFI, EL and TFP variables are calculated as positive and statistically significant in all defined models on the PISA-1, PISA-2, and PISA-3 groups without any exception, in parallel with expectations. These findings show that increases/developments in PISA-1, PISA-2, and PISA-3 countries during the period that was analyzed in terms of physical-human capital accumulation, and technological development level has a positive/statistically significant effect on economic growth. On the other hand, when findings in Table 5 constituting the essence of the study and representing its quantity and quality is analyzed in terms of EI-1 and EI-2 independent variables it is seen that the long-term effects of quantitative and qualitative education indicators on economic growth are positive and statistically significant in the countries participating in PISA. However, it is understood in the study that the magnitude of long-term and positive effects of quantitative and qualitative education indicators on economic growth increased in parallel with the success levels of the countries participating in PISA.

In conclusion, the long-term causal relationships between education and economic growth variables in defined models on the PISA-1, PISA-2, and PISA-3 groups in the study are analyzed using panel causality tests, developed by Emirmahmutoğlu and Köse (EK-2011) and Dumitrescu and Hurlin (DH-2012) considering the cross-sectional dependence and results supporting the presence of long-term effects are obtained. When analyzed, the findings in Table 6, presented in the Appendix, reveal that there is a two-way causality relationship between education and economic growth variables in the PISA-1, and PISA-3 groups, and a one-way causality relationship processing from education to economic growth in the PISA-2 group. (These results, which are obtained due to the fact that probability values of the test statistics calculated for the PISA-1, PISA-2, and PISA-



3 groups under relevant causality conditions are less than 0.05 respectively, can be seen in Table 6 presented in the appendix).

4. Conclusion

In this study, the effects of education on economic growth were empirically analyzed within the scope of panel data analysis, considering the cross-sectional dependence by using quantitative and qualitative education indicators in the participating countries of PISA tests, which is accepted as an international reference in the field of education. As a result of the study, it was determined that the long-term effects of quantitative and qualitative education indicators on economic growth were positive and statistically significant in the participating countries of PISA tests during the period that was analyzed. However, it was found out in the study that the magnitude of long-term and positive effects of quantitative and qualitative education indicators on economic growth increased in parallel with the success levels of participating countries of PISA.

These results reveal that the PISA results with regard to participating countries do not have any coincidence and they are empirically valid. On the other hand, the PISA results cover the students in the 15-year age group, which is considered to be the youngest age at which adult citizenship begins, and the econometric model results involve the current working-age population. This phenomenon is important in terms of demonstrating the existence of a strong complementarity relationship between PISA and econometric model results. In this respect, the findings of this study reveal the current status of relations between education and economic growth in the countries participating in PISA during the period that was analyzed as well as providing important hints about its status in the near future. Therefore, it is necessary to develop and to implement appropriate policies in the field of education in order to strengthen the relations between education and economic growth and to converge it to the level of economies considered to be successful (PISA-1), especially in economies considered to be unsuccessful in PISA tests (PISA-2). In this context, it may be appropriate to conduct quantitative and qualitative improvements in the field of education with an approach in which education policies of economies, especially those that are considered to be successful in PISA are taken as a reference by internalizing them. Otherwise, it is already possible to foresee that the current situation in these economies, in which the relationship between education and economic growth is found to be relatively weak/strong during the period that was analyzed, will be similar in the near future and that the differences arising in terms of education-economic growth will continue.

References

- Aghion, P. and Howitt, P. (1992). A Model of Growth Through Creative Destruction. *Econometrica*, 60(2):323-351.
- Baltagi, B. H. (2008). *Econometric Analysis of Panel Data*, 4th Edition, West Sussex, John Wiley & Sons.
- Barro, R. J. (1990). Government Spending in a Simple Model of Endogenous Growth. *The Journal of Political Economy*. 98(5): 103-125.
- Chudik, A. and Pesaran, M. H. (2015). Common correlated effects estimation of heterogeneous dynamic panel data models with weakly exogenous regressors. *Journal of Econometrics*, 188, 393–420.
- Denison, E.F. (1962). *The Sources of Economic Growth in The USA and Alternatives Before Us*. NewYork: Committee for Economic Development.
- Dumitrescu, E. and Hurlin, C. (2012). Testing for Granger Non-causality in Heterogeneous Panels. *Economic Modelling*, 29:1450-1460.
- Emirmahmutoglu, F. and Köse, N., (2011). Testing for Granger Causality in Heterogeneous Mixed Panels. *Economic Modelling*, 28:870-876.
- Grossman, G. M. and Helpman E. (1989). Quality Ladders and Product Cycles. *NBER Working Paper*, 3099: 1-33.
- Lucas, R. E. (1988). On the Mechanics of Economic Development. *Journal of Monetary Economics*, 22(1):3-42.



- Menyah, K., Nazlioglu, S. and Wolde-Rufael, Y. (2014). Financial development, trade openness and economic growth in African countries: New insights from a panel causality approach. *Economic Modelling*, 37: 386-394.
- Pesaran, M. H. (2004). “General Diagnostic Tests for Cross Section Dependence in Panels”, *Cambridge Working Papers in Economics*, 435.
- Pesaran, M. (2006). Estimation and inference in large heterogeneous panels with a multifactor error structure. *Econometrica*, 74, 967–1012.
- Pesaran, M. H. (2007). A Simple Panel UnitRoot Test in The Presence of Cross-Section Dependence. *Journal of Applied Econometrics*, 22(2), 265-312.
- Pesaran, M. H., Ullah, A. and Yamagata, T. (2008). A Bias-Adjusted LM Test of Error Cross-Section Independence. *The Econometrics Journal*, 11(1), 105-127.
- Reese, S. and Westerlund, J. (2016). PANICCA -- PANIC on Cross-Section Averages. *Journal of Applied Econometrics*, 31(6): 961-981.
- Romer, P. M. (1986). Increasing Returns and Long-Run Growth. *The Journal of Political Economy*, 94(5):1002-1037.
- Romer, P. M. (1990). Endogenous Technological Change. *The Journal of Political Economy*, 98(5):71-102.
- Westerlund, J. (2008). Panel Cointegration Tests of the Fisher Effect. *Journal of Applied Econometrics*, 23: 193- 233.
- Westerlund, J. and Edgerton, D.L. (2007). A Panel Bootstrap Coentegration Test. *Economic Letters*, 97, 185-190.

Appendix: Model Forecast Results

Table 2. CD-LM Test Results

Constant+Trend	PISA-1			PISA-2			PISA-3		
	Test Statistics		L	Test Statistics		L	Test Statistics		L
	Variables /Models	CD-LM-2		CD-LM _{adj}	CD-LM-2		CD-LM _{adj}	CD-LM-2	
RGDP	84.16 ^a [0.000]	145.36 ^a [0.000]	3	49.91 ^a [0.000]	261.14 ^a [0.000]	2	152.52 ^a [0.000]	285.52 ^a [0.000]	4
RGFI	29.92 ^a [0.000]	182.22 ^a [0.000]	2	22.51 ^a [0.000]	211.47 ^a [0.000]	3	55.65 ^a [0.000]	354.14 ^a [0.000]	3
EL	43.05 ^a [0.000]	177.38 ^a [0.000]	2	8.72 ^a [0.000]	221.43 ^a [0.000]	3	40.17 ^a [0.000]	357.83 ^a [0.000]	3
TFP	43.60 ^a [0.000]	142.65 ^a [0.000]	3	26.56 ^a [0.000]	275.53 ^a [0.000]	2	58.83 ^a [0.000]	355.94 ^a [0.000]	2
EI-1	72.35 ^a [0.000]	166.26 ^a [0.000]	4	72.09 ^a [0.000]	199.78 ^a [0.000]	4	135.11 ^a [0.000]	412.05 ^a [0.000]	4
EI-2	3.76 ^a [0.000]	119.10 ^a [0.000]	4	4.86 ^a [0.000]	173.08 ^a [0.000]	4	8.48 ^a [0.000]	285.33 ^a [0.000]	3
Model-1	2.980 ^a [0.000]	23.25 ^a [0.000]	3	6.381 ^a [0.000]	21.59 ^a [0.000]	3	7.934 ^a [0.000]	41.82 ^a [0.000]	3
Model-2	4.521 ^a [0.000]	20.77 ^a [0.000]		9.231 ^a [0.000]	23.86 ^a [0.000]		13.138 ^a [0.000]	40.29 ^a [0.000]	

Notes: The sign “^a” in front of the test statistics indicates that CSD is present at 1 % significance level. The values in parentheses “[]” in the table indicate test statistics probabilities, while the column “L” indicates the optimal lag lengths determined by the Schwarz Information Criteria (SIC) for the variables.

Table 3. CADF and PANICCA Panel Unit Root Test Results

Panel A: Unit Root Tests and Cointegration Tests of the Variables									
Constant+Trend	PISA-1			PISA-2			PISA-3		
	Test Statistics								
	CIPS								
	Variables	LV	FD	L	LV	FD	L	LV	FD



RGDP	-1.56	-2.82 ^b	3	-1.67	-2.68 ^b	2	-2.21	-2.92 ^a	4
RGFI	-1.93	-2.88 ^b	2	-2.15	-2.89 ^a	3	-2.13	-2.81 ^a	3
EL	-2.21	-2.84 ^b	2	-2.39	-3.16 ^a	3	-2.12	-2.62 ^b	3
TFP	-2.03	-3.02 ^a	3	-1.71	-2.99 ^a	2	-1.93	-2.85 ^a	2
EI-1	-1.87	-4.89 ^a	4	-1.99	-3.57 ^a	4	-1.49	-3.64 ^a	4
EI-2	-2.17	-3.85 ^a	4	-2.53	-3.16 ^a	4	-2.43	-3.15 ^a	3
Critical Values	% 1	-2.92			-2.83			-2.72	
	% 5	-2.73			-2.67			-2.59	
	PISA-1			PISA-2			PISA-3		
Constant+Trend	Test Statistics								
	PMSB								
Variables	LV	FD		LV	FD		LV	FD	
RGDP	2.27[0.988]	-3.20 ^a [0.001]		1.06[0.856]	-4.30 ^a [0.000]		1.91[0.972]	-6.06 ^a [0.000]	
RGFI	1.09[0.863]	-3.71 ^a [0.000]		3.26[0.999]	-4.51 ^a [0.000]		3.0 [0.999]	-6.14 ^a [0.000]	
EL	5.90[1.000]	-3.43 ^a [0.000]		3.05[0.999]	-4.42 ^a [0.000]		3.85[0.999]	-6.13 ^a [0.000]	
TFP	1.15[0.870]	-3.27 ^a [0.001]		0.95[0.630]	-4.44 ^a [0.000]		0.86[0.540]	-5.87 ^a [0.000]	
EI-1	1.29[0.903]	-2.01 ^b [0.022]		0.82[0.794]	-4.33 ^a [0.000]		1.25[0.894]	-3.81 ^a [0.000]	
EI-2	-2.17[0.985]	-3.20 ^a [0.000]		1.35[0.911]	-3.50 ^a [0.000]		3.58[1.000]	-4.45 ^a [0.000]	

Notes: The signs “^a” and “^b” in front of the test statistics indicate that the variables are stationary at 1 % and 5 % significance levels, respectively. The “LV” column in the table shows the level value of the variables and the “FD” column shows the first differences. See Table 2 for column “L” in the table.

Table 4. LM and DH Panel Co-Integration Test Results

Constant+Trend	PISA-1		PISA-2		PISA-3	
Test Statistics	Model-1	Model-2	Model-1	Model-2	Model-1	Model-2
DH_g	3.91 ^a [0.000]	11.83 ^a [0.000]	5.25 ^a [0.000]	11.96 ^a [0.000]	8.64 ^a [0.000]	10.20 ^a [0.000]
DH_h	6.47 ^a [0.000]	16.15 ^a [0.000]	17.93 ^a [0.000]	16.89 ^a [0.000]	17.23 ^a [0.000]	18.45 ^a [0.000]
LM	9.12 ^a [0.998]	19.97 ^a [0.555]	10.51 ^a [1.000]	24.65 ^a [0.208]	12.20 ^a [0.405]	14.45 ^a [1.000]

Notes: The sign “^a” in front of the test statistics indicates that there is a co-integration relationship between the variables in the model at the level of % 1 significance.

Table 5. Long Term Coefficients: CCE and DCCE Test Results

PISA-1								
Models	Model-1				Model-2			
	CCE		DCCE		CCE		DCCE	
Variables	Coefficients	SE.	Coefficients	SE.	Coefficients	SE.	Coefficients	SE.
RGFCI	0.0909 ^a	0.0123 [0.000]	0.1182 ^a	0.0202 [0.000]	0.1019 ^a	0.0318 [0.001]	0.0910 ^a	0.0286 [0.000]
EL	0.4393 ^a	0.0749 [0.000]	0.2111 ^b	0.1002 [0.035]	0.3426 ^a	0.1041 [0.001]	0.2683 ^a	0.1142 [0.001]
TFP	0.6325 ^a	0.0803 [0.000]	0.6171 ^a	0.0711 [0.000]	0.7182 ^a	0.0764 [0.000]	0.5696 ^b	0.0886 [0.019]
EI-1	1.3091 ^b	0.0587 [0.026]	0.9374 ^a	0.2525 [0.000]	—	—	—	—
EI-2	—	—	—	—	0.5210 ^a	0.0976 [0.000]	0.4027 ^a	0.1053 [0.000]
Constant	0.2802	1.2324 [0.820]	2.7122 ^a	0.5424 [0.000]	4.5281 ^a	0.4632 [0.000]	3.3884 ^a	0.6425 [0.000]
PISA-2								
Models	Model-1				Model-2			
	CCE		DCCE		CCE		DCCE	
RGFCI	0.0713 ^a	0.0110 [0.000]	0.0958 ^a	0.0127 [0.000]	0.0877 ^a	0.0206 [0.000]	0.1127 ^a	0.0244 [0.000]
EL	0.4444 ^a	0.0580 [0.000]	0.3207 ^a	0.0659 [0.000]	0.4217 ^a	0.0716 [0.000]	0.3589 ^a	0.0774 [0.000]
TFP	0.7138 ^a	0.0448	0.6681 ^a	0.0610	0.5934 ^a	0.0716	0.5691 ^a	0.0891



		[0.000]		[0.000]		[0.000]		[0.000]
EI-1	0.9834 ^a	0.227 [0.000]	0.6859 ^a	0.2597 [0.008]	—	—	—	—
EI-2	—	—	—	—	0.4872 ^a	0.0734 [0.000]	0.3165 ^a	0.0914 [0.001]
Constant	1.2270	1.2911 [0.342]	2.7427 ^a	0.4827 [0.000]	3.8394 ^a	0.3381 [0.000]	2.9634 ^a	0.4316 [0.000]
PISA-3								
Models	Model-1				Model-2			
	CCE		DCCE		CCE		DCCE	
RGFCI	0.0803 ^a	0.0083 [0.000]	0.0821 ^a	0.0116 [0.000]	0.0935 ^a	0.0177 [0.000]	0.1062 ^a	0.0179 [0.000]
EL	0.4567 ^a	0.0348 [0.000]	0.3760 ^a	0.0653 [0.000]	0.3896 ^a	0.0583 [0.000]	0.3480 ^a	0.0646 [0.000]
TFP	0.7095 ^a	0.0363 [0.000]	0.6394 ^a	0.0387 [0.000]	0.6441 ^a	0.0528 [0.000]	0.5539 ^a	0.0595 [0.000]
EI-1	1.0567 ^a	0.3098 [0.001]	0.0642 ^a	0.1865 [0.001]	—	—	—	—
EI-2	—	—	—	—	0.5002 ^a	0.0585 [0.000]	0.3233 ^a	0.0541 [0.000]
Constant	0.9408	1.3066 [0.472]	3.1303^a	0.3628 [0.000]	4.1192^a	0.2762 [0.000]	3.3461^a	0.3479 [0.000]

Notes: The signs “^a” and “^b” indicate that t-statistics of coefficients are significant according to significance level of 1 % and 5 %, respectively. The term “SE” in the table shows the standard errors of the coefficients and the probabilities of the values in the parentheses “[]”.

Table 6. DH and EK Panel Causality Test Results

	PISA-1		PISA-2		PISA-3		L
	Test Statistics						
	(Z_N^{HNC})	Fisher(λ)	(Z_N^{HNC})	Fisher(λ)	(Z_N^{HNC})	Fisher(λ)	
RGDP→EI-1	3.16 ^a	130.19 ^a	-1.72	86.40	2.81 ^a	258.11 ^a	2
	[0.002]	[0.000]	[0.085]	[0.195]	[0.005]	[0.000]	
RGDP→EI-2	3.29 ^a	79.16 ^a	-0.99	97.84	2.39 ^b	190.93 ^a	2
	[0.001]	[0.009]	[0.319]	[0.447]	[0.017]	[0.001]	
EI-1→RGDP	8.82 ^a	98.55 ^a	3.37 ^a	121.40 ^a	2.71 ^a	500.56 ^a	2
	[0.000]	[0.000]	[0.007]	[0.001]	[0.006]	[0.000]	
EI-2→RGDP	2.85 ^a	76.87 ^a	2.57 ^b	125.83 ^a	2.24 ^b	723.42 ^a	2
	[0.004]	[0.008]	[0.010]	[0.000]	[0.025]	[0.000]	

Notes: The signs “^a” and “^b” in front of the test statistics indicate that there is a causality relationship between the variables at the % 1 and % 5 significance level, respectively. The sign “→” in the table shows the direction of the causality relationship between variables. See Table 2 for column “L” and the values in the parentheses “[]”.



The Innovative Approaches and Methods of Specialists Training in Higher Education in Azerbaijan

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Abstract

The training of top-level specialists should be clearly and flexibly linked to technological and innovative changes in the national economy. The structure of professional training should correspond to the structure of demand for them from the public sector and large and medium-sized entrepreneurs. This means that the educational system should be closely integrated into the national economy of Azerbaijan, sensitively catch the ongoing innovation changes in higher universities of Azerbaijan.

This paper considers some of the problems of higher education and directions to solve them in Azerbaijan, as well as the issues of implementation and improving new teaching methods in universities, in particular at Azerbaijan State Economic University (UNEC). The authors systematized having experience in the following disciplines: Organizational Culture, Behavioral Sciences, Business Ethics, Negotiation Techniques, Business Organization and Management, Technology Management, Innovation Management, Strategic Management in various universities of Azerbaijan (Western University, Baku University of Business, Azerbaijan's Private University, Azerbaijan Institute of National Economy under the Cabinet of Ministers of Azerbaijan, SPAA, Azerbaijan State Economic University, etc.) also offered a number of recommendations: the guidelines for improving the process of innovative transformations in the educational process.

Keywords: state support of higher education in Azerbaijan, innovative changes in higher education, innovative teaching methods in universities, a rational combination of traditional and innovative teaching methods, prospects for the development of higher education in Azerbaijan.

Introduction

The educational system should be closely integrated into the national economy of the country, sensitively catch the ongoing innovation changes and adapt to them, respond to the current trends in the technological and innovative development of the national and world economy. Consequently, the use of innovative techniques and teaching methods will contribute to the improvement of qualifications and skills of students and undergraduates, improve the quality of education in Azerbaijan.

The paper analyses the statistical data of higher education in Azerbaijan for 2000/01-2017/18. All issues related to the training and application of new methods in the educational process were revealed by the authors while teaching in various universities of Azerbaijan (Western University, Azerbaijan Private University, Baku Business University, Institute of Management of National Economy under the Cabinet of Ministers of Azerbaijan Republic, also School of Public Administration in Azerbaijan - SPAA, Azerbaijan State Economic University (UNEC)).



The main research questions are as follows: How is higher education developing in Azerbaijan? Does the Azerbaijani government support higher education? Is the quality of higher education in the republic enough? Does the higher education of Azerbaijan attract foreign citizens? Does the Azerbaijani government support young citizens leaving abroad for higher education? Do the government and top managers of universities support training courses for lecturers and trainers? Do teachers use the innovative teaching methods? What innovative teaching methods are used to train specialists for the national economy? What problems exist in the educational process? What can be improved in the educational process of future economists? What innovative techniques and methods need to be introduced into the learning process?

Method

The following research methods were used in this paper: observation method, data grouping method, statistical analysis method, data comparison method. The authors gave an expert assessment using SWOT analyses.

Findings:

Socio-Economic Analysis of Higher Education in Azerbaijan and its State Support

Recently, higher education has become an important factor in the competitiveness of countries. Each country is forced to train personnel with a high level of education in order to prepare the basis for innovative transformations, which in turn not only develops the national economy, but also strengthens its position in the global market. Estimates by specialists from the Organization for Economic Cooperation and Development (OECD) confirm that education costs are very, very high-yielding investments that pay off several times (Yakovleva, 2009).

The process of education as an economic category interacts with various sectors of the national economy and economic and production activities. In this case, all resources (labour, technology, materials, as well as raw materials, energy, information resources, etc.) are combined in a single process of reproduction and reproduction of the total social product (Hamidov, H.I., Huseynli, AT Shamkhalova, S.O, 2016).

In the process of education, human capital is formed and modified. The formation of human capital in Azerbaijan plays an important and priority role for the state. These government measures are treated as "Azerbaijan's Development Concept - 2020: outlook for the future» (Azərbaycanın İnkişaf Konsepsiyası-2020: gələcəyə baxış ", 2012)," National Education Development Strategy of Azerbaijan Republic» (" Azərbaycan Respublikasında təhsilin təhsilin inkişafı üzrə Dövlət Strategiyası ", 2013), Laws of Azerbaijan "About Education"(Təhsil haqqında", 1992) and "About Science" (Elm haqqında, 2013).

During the years of the restoration of the sovereignty of Azerbaijan the number of students, also the number of foreign citizens studying in the country's universities has increased. As can be seen from table 1. the number of bachelor students in the academic year 2015/16 increased by about 27% compared with 2000/01. Over the same period, the number of bachelor students in the group of agricultural specialties increased (approximately 82%). The indicators of next group specialties also increased: in economics and management speciality - approximately 37%, in technical and technological sciences - approximately 29%. During the same period, the proportion of bachelor students in specialty groups of natural sciences decreased (approximately 44%). At the same time the share of bachelors on speciality humanities and social sciences decreased (approximately 51%). As can be seen from table 1. the number of bachelors increased by about 15% over the academic years 2015/16-201 /18.

Table 1.Number of bachelors, who have education in state and non-governmental universities of Azerbaijan (men). (<http://www.stat.gov.az/source/education/>, 2019)

Years	2000- 2001	2010- 2011	2015- 2016	in 2015/16 to 2000/01,	2017- 2018	in 2017/18 to 2015/16 ,



				in %		in %
Number of students- bachelors, total-men	26403	29904	33645	127.28	38546	114.56
Of them on speciality:						
Natural science	2532	1390	1436	-43.29	1635	113.85
Agricultural science	315	471	571	181.69	850	148.86
Economy and management	4890	6174	6663	136.57	7656	114.90
Human and social sciences	9088	3258	4539	-50.06	5209	114.76
Technological science	5930	7094	7614	128.40	8380	110.06
Etc.	3648	11517	12822	351.48	14816	115.55

The increase in the number of bachelors was observed by groups of specialties in agriculture - about 49%, for natural sciences - 14; for economic disciplines, also in the humanities and social sciences - about 15%, for technical and technological disciplines - about 16%.

Table 2. Number of masters, who have education in state and non-governmental universities of Azerbaijan (men). (<http://www.stat.gov.az/source/education/>, 2019)

Years	2000- 2001	2010- 2011	2015- 2016	In 2015/16 to 2000/01, in %%	2017- 2018	In 2017/18 to 2015/16, in %%
Number of masters, Total (men)	2752	3698	4953	179.98	6515	131.53
Of them on speciality:						
Natural science	321	548	560	174.45	814	145.35
Agricultural science	35	21	92	262.86	114	123.91
Economy and management	638	1263	1994	312.54	2234	112.03
Human and social sciences	1105	1183	639	-42.17	860	134.58
Technological science	570	520	795	139.47	1336	168.05
Etc.	83	163	873	1051.80	1157	132.53

As can be seen from table 2. for the period 2000/01-2015/16 the number of masters in the humanities and social sciences has decreased (about 42%), but the proportion of graduate students in all other areas of education has increased: in the natural sciences by about 75%, in agriculture - about 163%, in economics and management - 213%, on technical and technological disciplines - about 40%. According to the data of table 2. the increase in the number of masters was observed for the period 2015 /16-2017 /18 (32%). The number of masters in natural sciences increased by 45%, in agricultural disciplines approximately 24%, in economics and management - 12%, in the humanities and social sciences approximately 35%, in technical and technological disciplines by 68%.

Recently, the number of foreign students receiving education in Azerbaijani universities is growing every day. For example, republican universities prepare specialists not only from CIS countries, but also from abroad in the field of oil and gas production and refining, for the petrochemical industry, for the industry of petroleum engineering, in the field of oil shipping, military science, in philology, history, in mathematics and in other disciplines. Note that the area of the countries is the most diverse and covers almost the Earth world (from the USA, Canada, Latin American countries to China, from the countries of the African continent to European countries).

For the period 2000/01 - 2017/18 academic years, the proportion of the number of bachelors and masters combined increased by 128.3%. But for the period 2010 /11-2017/18 years the proportion of students from Russia increased by 151.8%, from Ukraine - 300%, from Kazakhstan - 66.7%, from Turkmenistan - 70%, from



Uzbekistan - 6.3 times, from the USA 5 times, from Georgia - 136.4%. Unfortunately, the proportion of students from Turkey has decreased (by 32%).

According to statistics, over the past 18 years, the number of Azerbaijan citizens receiving education abroad has also increased. The number of Azerbaijani youth receiving higher education in foreign countries has increased almost twice (period 2000 /01-2017 /18). The period 2010 /11-2017/18 years differs by particular activity of various educational programs from Europe and Asia, which particularly influenced the growth of the number of students studying abroad. The growth in the number of students in the USA from Azerbaijan is especially noticeable (this indicator has increased by twice), in Canada (280.5%), in Germany - 116%, in the UK - 112, 5%. Unfortunately, the number of students receiving higher education in Turkey has noticeably decreased by 32%

It should also be noted the role of state support in obtaining highly qualified education in Azerbaijan. According to the "State Program for Teaching Higher Education of Azerbaijanian Youth in 2007-2015" of December 31, 2016 State Oil Fund of the Azerbaijan Republic receive a grants for 3,302 students who are educates not only in European states, but also in Canada. About 29% of the total number of bachelor and master students are educated in Great Britain, in Turkey - 22.1%, in Germany - 12.4%, in Canada - 7.2%, in the Netherlands - 5.2%. About 4 % of bachelors and masters are educated in Russia ("The State Programme on Universities in 2007-2015", 2015). It should be noted that the majority of these are masters (79.0%) (Manafova, 2013).

A significant part of masters receive higher education mainly in economic specialties. The most popular among young people is the specialty "Economics and Management" (722 people in 2017). In second place in popularity are specialties related to engineering knowledge (138 people in 2017). There is also interest in the legal sciences (120 people in 2017) and the ICT field (118 people in 2017). The same situation can be observed among bachelors ("The State Program on 2007-2015", 2015).

Many alumnus, when returning home, work not only in foreign companies, but also in higher education sector of Azerbaijan. The first pioneers among them were graduates of the one-year course of top managers from Turkish Istanbul University since 1991, graduates of Istanbul University on the VAQF's pilot project of the Turkish World Research Foundation in Baku, who also received a master's degree in Turkey and worked as teachers in the Azerbaijan Institute of Management of National Economy under the Cabinet of Ministers of the Republic of Azerbaijan since 1997.

In Azerbaijan Institute of Management of National Economy under the Cabinet of Ministers of Azerbaijan Republic was also organised the three-month course of market economics' course by the professors of the Kiel University of Germany. There in the period 1994-1997 was organised the three year course of "Public Administration and Management" under the TACIS programme. Lecturers and Trainers from Nottingham Trent University (Great Britain), the University of Maastrich (Netherlands) and the Institute of Management of Ireland delivered the disciplines in Economics and Public Administration to trainees from Azerbaijan. At the end of these courses was established the School of Public Administration in Azerbaijan (SPAA), whose senior teachers taught modern methods and techniques in economics and management to senior officials of the Customs Committee, the Ministry of Taxation of Azerbaijan, employees of the Central Bank and other organizations in 1995-2001. Nowadays, many graduates of these courses teach at Azerbaijan State Economic University, at Baku State University, at Western University, at Baku University of Business, at private university Azerbaijan, and others. Since 2001, senior lecturers of School of Public Administration in Azerbaijan (SPAA) and teachers who graduated from the Istanbul University faculty began working in the Business Administration faculty of the Azerbaijan State Economic University (UNEC).



Since 2004 various programmes of the European Community and Asia suggest to Lecturers and Researchers of Azerbaijan State Economic University (UNEC) some advanced training. For example, according to the latest data from the UNEC website, a vacancy is open for receiving scholarships for research and internship at the Kong-Gong University of Japan, at universities in South Korea, and at universities in Turkey. Every day the number of teachers who have received higher education abroad is growing whose actively use the innovative teaching methods and techniques in practical classes and lectures.

Students enrolled in undergraduate and graduate programmes also have the opportunity to receive additional education in universities in Europe, Asia, and the America continent. According to the latest news from the UNEC website, they have the opportunity to study from the third year at French Montpellier University, London Scholl of Economics and get a double diploma in education.

Innovative Techniques and Teaching Methods Implemented in Azerbaijan State Economic University (UNEC)

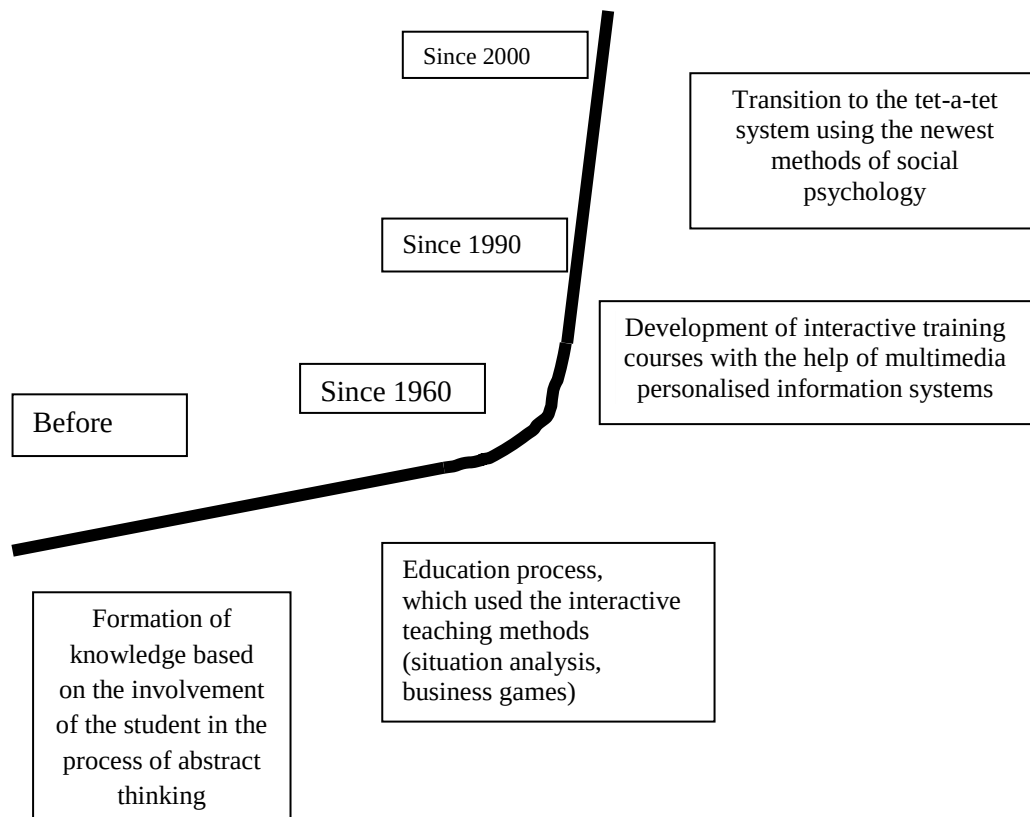
In conditions when the formed education system (“supporting education”) is gradually being replaced by an innovative education model (“creative learning”) more of trainers and tutors are looking the new teaching methods in the educational process. In this process have been changing the requirements to all interested persons of education: tutors, teachers, trainers, students, administrative staff of university, finally all educational system.

As can be seen from the Scheme 1. the traditional system of education goes through several stages on the path of improvement. Training on the basis of indispensable involvement in the environment of thinking in the 1960s of the last century proceeds to the training of practical skills on the basis of such training seminars as case studies, business games, learning systems. Since the 1990s the educational process has transferred to a new stage of learning - the development of interactive courses using personalised multimedia systems (Personal Computers, mobile phones, distance learning, etc.). Further technical improvements should be replaced by an educational process based on the tet-a-tet technology of a student with a trainer or teacher using various socio-psychological methods of teaching.

The educational process, which actively used the Soviet system, has some drawbacks:

- Classroom education system - the transfer of knowledge through a survey lesson - does not meet modern requirements for the use of creative activity;
- Education programmes are mostly dogmatic in nature, not adapted to actively changing conditions of reality;
- The methodological base of textbooks is so outdated that many scientific achievements and recent discoveries are not reflected in them;
- There is no proper motivation of the average student for independent thoughts and actions, i.e. to the ability to develop independently and to replenish existing knowledge.

In this context, schools and methods of developmental education, which teach the dynamic perception of reality, are of great importance. The specificity of the education system should be manifested in its ability not only to provide the student with knowledge, but also to form the need for continuous mastering them, i.e. develop the skills and self-education skills. In addition, for the purpose of productive professional activity, it is necessary to instill in students such important qualities as creativity, independence, enterprise, agility, stress resistance. To this end, since the 90s of the last century, they began to use innovative, reflective business games, in which situations of choice and decision-making are modeled.



Scheme 1. Education process and requires to its development.

If we take into account the fact that new psychological tests and business games have been actively used in the educational process in the spatial context of the former Soviet Union since the 1980s (they cover the period of creating interactive educational programs taking into account multimedia tools and information technologies, as well as tet-a-tet based programmes' learning which using various socio-psychological techniques), the active use of psychological techniques in teaching and in the educational process has now become not only fashionable, but also necessary condition of the process of interactive learning.

These processes include the use of an immediate survey of students according to the method of the Mentimeter system, the joint design of the business plans of students under the guidance of a trainer. The use of interactive forms of learning, such as testing after a lecture, e-consultations, and e-learning, helps realise the benefits of learning: mobility, interactivity, memorability, flexibility in use, accessibility, reduction of training expenditures (Yakovleva, 2009).

Now, in all developed countries of the world, a lot of attention is paid to the process of socialisation and upbringing of new generations of society. Scientists distinguish two fundamental approaches in pedagogy: nature conglomeration or cultural conglomeration; following the child's "natural" nature or obeying its culture? The scientists' answer is led to a single goal. At the same time, the goal of education is to lead to culture (improvement of the student's positive creative qualities), and the method of education should be based on the nature of the student (identification of generic, external, internal psychological negative factors and their correction in a positive direction).



As can be seen from table 3. only strong students are able to better adapt to the new world requirements of training, and weak students perceive all innovations as a blow to their ego and actively resist innovations. Students with average statistical knowledge at the beginning watch for innovations in education with caution, but after adaptation they perceive these innovations positively.

Table 3. SWOT Analysis of Innovative Training in High Education School of Azerbaijan

Strengths	Weaknesses
➤ Developing the ability to think independently and make decisions; ➤ Strong students gain independent work experience; ➤ The Lecturer or Trainer can control not only the student's behavior, but also the process of their thinking.	➤ Weak students do not gain independent work experience; ➤ Students' self-control may be weakened; ➤ Not all tasks are completed on time.
Opportunities	Threats
➤ Teaching time is shortened by increasing attention to detail; ➤ There is a sincere interest in the subject of study.	➤ With the strengthening of social ties between students, ties with teachers deteriorate. ➤ Lack of control can contribute to laziness;

Using the new approaches of learning in their course (business games, case studies, testing, etc.) the trainer and teacher can adjust the subject of their subject according to the interests of students and their level of preparedness; pay attention to the overall level of assimilation of complex topics; focus on clarifying topics that are difficult for students to understand. In addition, a poor student has a chance to take the exam several times until he reaches the desired result.

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Results, Conclusions

Prestigious models of higher education are the Chinese model, and the European education system, each of which has its own content, principles, values and specificity. Basically, the formation of a high level of higher education should be based not only on a high level of higher education with the support of the government, on scientific and technical cooperation and cooperation of universities of the whole world.

For the formation of a quality higher education Azerbaijan transfers to implementation of principle of openness, not limiting the student in time and spatial framework: the student gradually develops into a subject who decides for himself what disciplines and when he can study and when he can pass the exam. And it forms the autonomy and sense of responsibility of the student, taking into account his individual personality characteristics.

The development of cooperation and interaction of universities is possible in terms of joint scientific research developing. For this purpose inter-university laboratories are being formed as centers of collective use, interuniversity departments are being created, regional centers of quality management system certification are being formed, programs for the export of educational services (training programs for bachelor and master) and technologies (distance learning programs, interactive business games using information technologies) are being developed which will contribute to the development of innovation activities in the country.



Higher education should be based on using of information and communication technologies, on development of network distance learning methods. The creation of joint information resources contributes to developing of educational technologies and the implementation of e-learning, the introduction of innovations and the acquisition of positions like as the regular customer and the regular provider of educational, scientific and methodological services, consultations, etc. It should be noted that information technologies only enrich the learning process. Management of the learning process remains with the teacher and trainer. Only the teacher organises the procedure of contact with the student during consultations or through communication on the Internet.

Using the innovative learning techniques the teacher works as an expert and consultant (tutor, moderator, mentor) who helps to student to navigate the world of various information. With the expansion of the circle of consumers of educational services the encouragement is used as a method of active self-realisation among students. Innovative characteristics of new teaching methods are as follows:

- 1) to use the irrational (inherent in the East) and also rational (inherent in the West) analysis methods in study and in research;
- 2) to support of constant attention and interest of students on the situation being analysed;
- 3) to use of non-standard methods of analysis;
- 4) to develop of students' creative approaches in identifying the details, as well as resolving the proposed situation.

It is necessary to note Azerbaijan high education system has got some problems that still need to be solve. Unfortunately, higher education in Azerbaijan has a number of shortcomings, which include the following:

- There is no unification in education programmes for various disciplines, which creates certain difficulties for students, especially for students of private universities. These disciplines mainly include new educational courses in economics, sociology, psychology, information technology, and philosophy. There are no uniform textbooks, especially in Azerbaijan language;
- Some knowledge is not adjusted in accordance with the temporary stage of social development, some lectures contain old topics, the methodological base of education is weak. Many students are not familiar with the scientific achievements of Azerbaijanian and other Turkic-speaking, Islamic scholars of the middle Ages. For example, many do not know that the founder of sociology was Ibn Haldun, the scientific heritage of Aristotle and the ancient Greeks was restored thanks to the abstracts of Al Farabi (for example, look at the course “Behavier”) (Abasova, 2007);
- With the development of information technology more students use telephones and smartphones and they pass valuable information past the ears. There are no teaching techniques using students' mobile gadgets, which would contribute to their active involvement in the educational process;
- The principle of learning “a student must able to apply acquired specific knowledge in his future profession” is gradually replaced by the principle “a student must select resources-knowledge to adapt to new conditions and be able to find and correctly use various options for solving life problems”. The task of the faculty, management and specialists of high schools is to create and form the new schools and methods of developmental education that teach the dynamic perception of reality;
- Not all foreign diplomas from foreign countries are accepted by the Ministry of Education and the Higher Attestation Commission of Azerbaijan Republic. If this issue is resolved by bilateral agreements between the CIS countries, then there are no agreements between Azerbaijan and other European countries and countries of the Americas which creates some obstacles in the identification of BSc's., MSc's. and PhD's Diplomas.



Recommendations

The implementation of innovative techniques and methods of functioning in universities' administrating create some opportunities and prospects for accelerated access to new markets. The development of information technology contributes to the network interaction of the educational process, reduces expenditures; expands access to information not only in the network of the university itself, but also in the networks of the university partners. And it promotes the sharing of risk among network members, strengthening cooperation ties.

Summing up, we note that Azerbaijan, being exactly in the middle of the Eurasian continent, at the junction of Europe and Asia, between the Christian and Muslim worlds has a wide potential for implementation of teaching different methods. And in turn, Azerbaijan develops traditional areas of science - mathematics and higher mathematics, philosophy, philology, archeology, history, learning old languages as well as geophysics, chemistry, mineralogy, and other disciplines. But, unfortunately, Azerbaijan has not yet created its own development model in the field of higher education. The need to create and form a national model of higher education is a priority task for the society and universities of the republic.

The preparation of specialists with higher education is an interacting system that determines the consideration of the features of the educational process throughout the world. It is necessary to take into account the fact that in the context of globalisation many young people who focused on career growth prefer to receive a higher education that can compete with the best European standards. For this purpose, it is necessary to form such a model of higher education in Azerbaijan that could train specialists not only for the CIS countries, but also for Europe and the whole world. It is necessary to create the structure which will be cooperate university and research institutes' activity on the example of the Research State University of Nizhny Novgorod of the Russian Federation (www.unn.ru, 2019).

The authors suggest that the creation of an information base about specialists who have been trained abroad and working in the universities of the republic is one of the first steps for the formation of the faculty. Secondly, it is necessary to form groups for creating shells for content as part of network specialists in various disciplines. Thirdly, it is necessary to continuously update and improve training programmes, business games, programmes for analysing a specific situation for sale through the information network - SKYPE, WHATSUP, etc. Fourth, it is necessary to develop scientific and technical cooperation in developing joint training programmes with the CIS countries. Fifth, it is necessary to adjust the system of knowledge assessment and testing the level of competence, to form a unified system of knowledge assessment.

References

- Abasova, S.H. (2014) The Rational Combination of Innovative Methods with Social Psychology in the Educational Process in the Field of Economists' and Managers' Training. *Collection of scientific papers of Scientific Institute of Economic Reforms under Azerbaijan Republic Economy Ministry. Issue 14*, 40-44. (in Russian) - Абасова, С.Г. (2014) Рациональное сочетание инновационных методов с социальной психологией в образовательном процессе в сфере подготовки экономистов и управленцев. *Сборник научных трудов НИИ Экономических Реформ при Министерстве Экономики Азербайджанской Республики. Выпуск 14*, 40-44.
- Abasova, S.H. (2007) Collection of Lectures in Course "Behavior Sciences". *Baku, Azernesr Publishing*, 170. (in Azerbaijan) – Abasova, S.H. (2007) "Davranış elmləri" üzrə mühazirələr toplusu". *Bakı, Azərnaşr*, 170s.
- "Azərbaycanın İnkişaf Konsepsiyası-2020: gələcəyə baxış" (2012) *Azərbaycan Respublikası Prezidentinin 2012-ci il 29 dekabr tarixli Fərmanı* - https://president.az/files/future_az.pdf
- "Azərbaycan Respublikasında təhsilin inkişafı üzrə Dövlət Strategiyası" (2013) *Azərbaycan Respublikası Prezidentinin sərəncamı № 13, 24 oktyabr 2013-cü il* - www.e-qanun.az/framework/29145



- Education, Science and Culture in Azerbaijan. (2016). *Baku, State Committee of Statistics*, 218-219. - Azərbaycanca təhsil, elm və mədəniyyət. (2016) *Bakı, Statistika üzrə Dövlət Komitəsi*, 218-219.
- “Elm haqqında” (2013) *Azərbaycan Respublikasının Qanunu* - http://science.gov.az/uploads/PDF/Elm_haqqinda_Azərbaycan_Respublikasının_Qanunu.pdf
- Hamidov, H.İ., Hüseynli, A.T. Shamkhalova, S.O. (2016) Innovation Creating and Stimulation in Business Developing in Azerbaijan. *Collection Paper of 2nd Simpozium “Innovations Diversification Research”*. Penza city Russian Federation, Publishing Centre “Science and Civil Education” of International Centre of Scientific Cooperation, 113-120 (in Russian) - Гамидов, Г.И., Гусейнли, А.И., Шамхалова, С.О. (2016) Создание и стимулирование инноваций в развитии бизнеса в Азербайджане. Сборник 2-й международной научно-практической конференции «Прорывные инновационные исследования». Пенза, изд. МЦНС «Наука и просвещение», 113-120.
- <http://www.stat.gov.az/source/education/> (2019) (Hissə 1.8.23. Dövlət yolu ilə xarici ölkələrdə təhsil alan azərbaycan vətəndaşlarının sayı)
- <http://www.stat.gov.az/source/education/> (2019) (Hissə 001_8_10-12xls)
- Manafova, E.Q. (2013) The Competitiveness of Higher Education Schools in the field of Education Services’ Market. *News of Economy institute of Azerbaijan National Academy of Sciences*, No.3, 82-87. (in Azerbaijan) - Mənafova, Ə.Q. (2013) Təhsil xidmətləri bazarında ali məktəblərin rəqabətqabiliyyətliliyi. *AMEA İqtisadiyyat İnstitutu Xəbərlər jurnalı*, No. 3 , 82-87.
- Strategic Road Map of Azerbaijan for Perspective Development of the National Economy of the Azerbaijan Republic. (2016). *Decree of the President of Azerbaijan*, December 6. - Azərbaycan Respublikasının milli iqtisadiyyat perspektivi üzrə Strateji Yol Xəritəsi. (2016). *Azərbaycan Respublikası Prezidentinin Fərmanı*, 06 dekabr.
- “The State Programme on Education of Azerbaijanian Youth People in Foreign Country Universities in 2007-2015” (2015). Decree of the Chairman of the Education Commission under the President of the Republic of Azerbaijan No. 8 of February 09, 2015 (in Azerbaijan). - “2007-2015 illər ərzində xarici ölkələrin universitetlərdə təhsil alan azərbaycan gəncləri üzrə Dövlət Proqramı” (2015) Azərbaycan Respublikası Prezidenti nəzdində Təhsil üzrə Komissiya Sədrinin Fərmanı. No. 8, 09 fevral.
- “Təhsil haqqında” (1992) *Azərbaycan Respublikasının Qanunu* - www.e-qanun.az/framework/7956
- www.unec.edu.az
- www.unn.ru
- Yakovleva, Y.V. (2009) Modern Education which focused on the Training of Highly Qualified Personnel for Innovative Business in Terms of Knowledge Economy. *Journal of Omsk State Technical University*, No. 3, 9-16. - Яковлева Е.В. (2009) Современное образование, ориентированное на подготовку высококвалифицированных кадров для инновационного бизнеса в условиях экономики знаний. *Журнал Омского государственного технического университета*, № 3, 9-16.



New Pedagogies for Lifelong Learning: An Insight of Urdu Literature in Pakistan

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Abstract

Literature has foremost impact on the maturity and development of any society. It produced civilizations, Impact on political systems and exposed injustice. It gives us a detailed preview of human experiences, allowing us to connect on basic levels of desire and emotion. Literature is thought provoking; it allows us to raise questions and gives us a deeper understanding of issues and situations. The aim of this study is to make an appraisal of the impact of the reading of literature on increasingly diverse societies like Pakistan. The objective of the study is to explore how Urdu literature changes the way of thinking, to indicate the new pedagogies of lifelong learning and to highlight the current culture of reading in Pakistan. To achieve these objectives survey method of research will be use. In order to collect data self structured questionnaire based on the open and close ended questions will be use. The collected data will be analyzed in statistical software available for social sciences (SPSS). Results will be presented and recommendations will be given on the basis of these results. There had been no previous study done on this particular topic of Urdu literature, so there is need to explore the impact of reading culture of Urdu literature in a multicultural society of Pakistan. Being the first study of its kind in Pakistan it is anticipated that the research will provide a baseline for further research in this area and will contribute to the literature.

Keywords: Lifelong Learning, Urdu Literature, Pakistan

Introduction

Literature has foremost impact on the maturity and development of any society. It produced civilizations, Impact on political systems and exposed injustice. It gives us a detailed preview of human experiences, allowing us to connect on basic levels of desire and emotion. Literature is thought provoking; it allows us to raise questions and gives us a deeper understanding of issues and situations. Jarvis (2012) believes that LLL is “the process of learning which occurs throughout life”.

Lifelong learning is a continuous process which never stops. Due to the flood of information during last two decades rapid changes in society noted all over the world. It affects every discipline of life and education. Many challenges occur due to these technology gadgets. Information creates and expired very quickly so the need for updating information is a continuous process. This process calls lifelong learning which comparatively a new phenomenon. Everybody confronted change all through life.

These progressions are essentially the initial step towards learning and figuring out how to face all these little and huge changes. These little changes have impacted strongly on our behavior and consciously or unconsciously became a part of our information seeking behavior. Pakistan is a multicultural society which consists of sub-cultures.

Objectives of the Study

The objectives of the study are:



1. To examine the current scenario of LLL in multicultural society of Pakistan
2. To indicate the motivational factors of self-learning in the field of literature
3. To explore the information seeking behavior of Urdu literature students
4. To highlight the significances of LLL for literature students

Scope of the Study

Pakistan is a multicultural society which is a combination of different cultures, languages & traditions. Everybody confronted change all through life. These progressions are essentially the initial step towards learning and figuring out how to face all these little and huge changes. These little changes have impacted strongly on our behavior and consciously or unconsciously became a part of our information seeking behavior.

The aim of this study is to figure out the changes in information seeking behavior of Urdu literature students during LLL. There had been no previous study done on this particular topic of Urdu literature, so there is need to explore the impact of reading culture of Urdu literature in a multicultural society of Pakistan.

Review of the relevant Literature

Lifelong Learning is not a new phenomenon. LLL roots back almost a century, between 1920s & 1930s. At that initial stage it was only related to education and training opportunities for adults. (Vargas, 2014) What is actually mean by LLL, A very comprehensive definition is provided by the European Commission (2001) is that LLL is “all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective.” Information world is became complex day by day, and it became very difficult to manage and fill the information gap created by the information flood. According to Fischer (2000) “Lifelong learning is an essential challenge for inventing the future of our societies; it is a necessity rather than a possibility or a luxury to be considered”.

Karaman (2012) indicated that due to the speedy changes of every field of life, especially in the information world there is a notable increase in the importance of LLL. There is a remarkable increase in the production of information during the last two decades. The world is converted into a global village and access of information is easier than ever been before. The 21st century is the beginning of information or knowledge-based society where people have easy and free access to unlimited information. (Dzicgielewska, 2002) Information created and got expired very quickly now a day's that's why people need the regular and fast update on a regular basis to meet the challenges created by the information society. Learning is a continuous process that's why it calls lifelong learning. Bourn (2001) mentioned that “Globalisation poses fundamental challenges for all areas of education, including lifelong learning.”

Nash (2019) mentioned that there is a need to enhance the educational initiatives for the development of lifelong learning of students. He further explores that that these skills play vital role in students learning outcomes. Peters (2019); Sun, Caravias, Maynard, Weisskirch (2018) & Kind (2015) believed that the digital revolution have a deep impact on education at all levels. These learning devices create opportunities for students to get motivated for lifelong learning and joy of learning.

Multicultural society is comparatively a new phenomenon which roots back 20 to 30 years. Pakistan is a multicultural society which is a combination of different cultures, languages & traditions. Lahore, one of the big cities of country is a blend of different cultures of the country. It is city of Universities, private and public. People come all over from province and other provinces as well to get educated and earn degrees in different disciplines of life. Learning changes its nature rapidly due to the advancements in technology and flood of information. Now a day's leaning is not restricted to classrooms especially for the students of Urdu literature. There is a remarkable



change in behavior of students while using information and searching their required information. The objectives of the present study were to explore the impact of LLL on Urdu literature students. Study also aims to figure out the changes in information seeking behavior of Urdu literature students.

Research Design & Methodology

A quantitative survey method of research used to achieve the objectives of the study. Four major public universities of Lahore are the population of the study i.e.

1. University of the Punjab, Lahore
2. Government College University, Lahore
3. Lahore College for Women University, Lahore
4. University of Education, Lahore

Data are collected from the students' of Urdu literature from above selected universities. A self-structured questionnaire based on the open and close ended questions is used to collect data from literature students of BA (HONS), MA and M.Phil, with the help of convenience sampling method. 320 questionnaires were circulated amongst these 04 universities; eighty for each university. Out of which 242 returned. The collected data is analyzed in statistical software available for social sciences (SPSS). Results are presented with the help of charts and tables followed by the comprehensive discussions. To get the maximum utilization from results recommendations are also given on the basis of these results.

Results and Research Findings

1. Demographic Information

- a. Gender
- b. Age
- c. Education

Data collected through the questionnaires by implemented the convenient sampling. Total 320 questionnaires were distributed among 04 selected universities, out of which 242 responses were received. Table 1 shows the balanced ratio of responses in form of gender.

Table 1. Percentage of Gender

Sr. No	Gender	Frequency	Percentage
1.	Male	120	49.6%
2.	Female	122	50.4%

Table 2 shows the age range of respondents. Results indicate high ratio of age group 21-25 (58.70%) and (27.70%) respondents age group are 16-20. Table 2 provides the comprehensive details of respondent's age group.

Table 2. Age range of respondents

Age (n=237)	Percentage
16-20	27.70%
21-25	58.70%
26-30	5.40%
31-35	3.30%
36-40	1.70%
Above 40	1.20%



Table 3 shows the details about qualifications of respondents. It is noted that more than 59.5% respondents are BS four year program, and 16% respondents are Masters students. The details of the qualifications / highest degree of respondents shows as under: (Table 3)

Table3. Percentage of Qualification

Qualifications (n=238)	Percentage
Bachelors (16 years)	59.5%
Masters	16%
M.Phil.	24.5.0%

Findings and Discussion

1. Sources to locate desired information

Results shows high ratio about the daily use of Books & Monographs 49% Urdu literature students use this source on daily basis to get their required information. Internet sources 40% and informal discussions 40% are the sources use on daily basis to reach towards required information. The collected data shows that the Urdu literature students are not very familiar and comfortable with the use of Research journals and research reports while finding information. Almost 28.5% respondents never using these sources while locating some information. Results also show that 19% Urdu literature students never use bibliographical sources to get information.

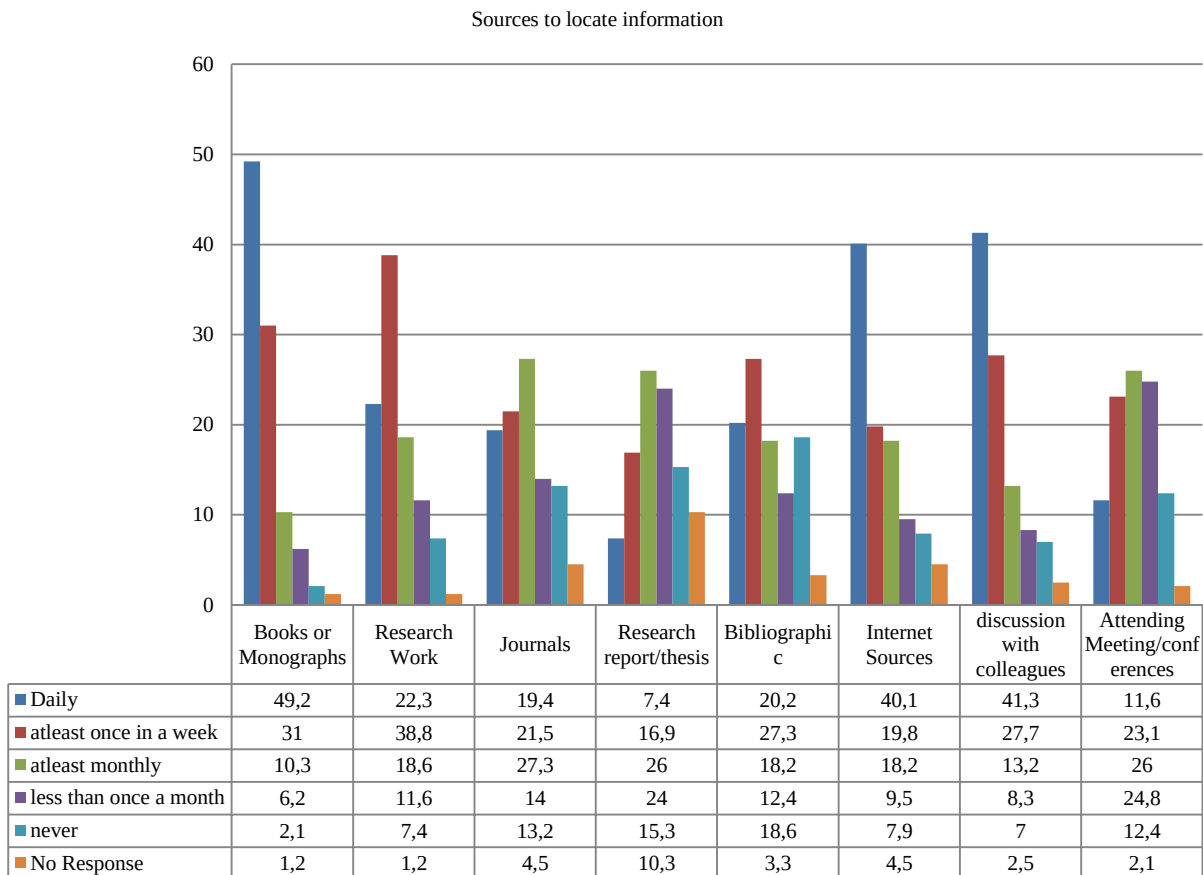
Table 4. Frequency of Sources

	BM	Ref.	Jou.	RT	Bib.	IS	DIS.	MC
Daily	119	54	47	18	49	97	100	28
At least once in a Week	75	94	52	41	66	48	67	56
At least Monthly	25	45	66	63	44	44	32	63
Less Than once a Month	15	28	34	58	30	23	20	60
Never	5	18	32	37	45	19	17	30
No Response	3	3	11	25	8	11	6	5

* Books or Monographs=BM, Reference Work=Ref, Journals= Jou., Research report/thesis= RT, Bibliographic=Bib, Internet Sources= IS, discussion with colleagues= Dis., Attending Meeting/conference= MC



Figure 1. Percentage of Sources to Locate Information



Students were asked to indicate the frequency of sources which they use to get their desired information. Figure 1 shows the detailed percentage of each source implied by the Urdu literature students to find information. Results indicated the high ratio of daily use of books 49.2% (Table 4) and only 02% Urdu literature students never use books to locate information.

2. Motivations for Self Learning

The second research question was about the exploration of self-learning motivations. Students were asked to indicate the self-learning motivations on the level of 1-5. Results (Table5) indicate that Teachers 40.5%, Family 38.8% and Friends 32.2% are the core motivations while Urdu literature students engage themselves in self-learning or LLL. They firmly believe that these are the motivations to enhance their self-learning.



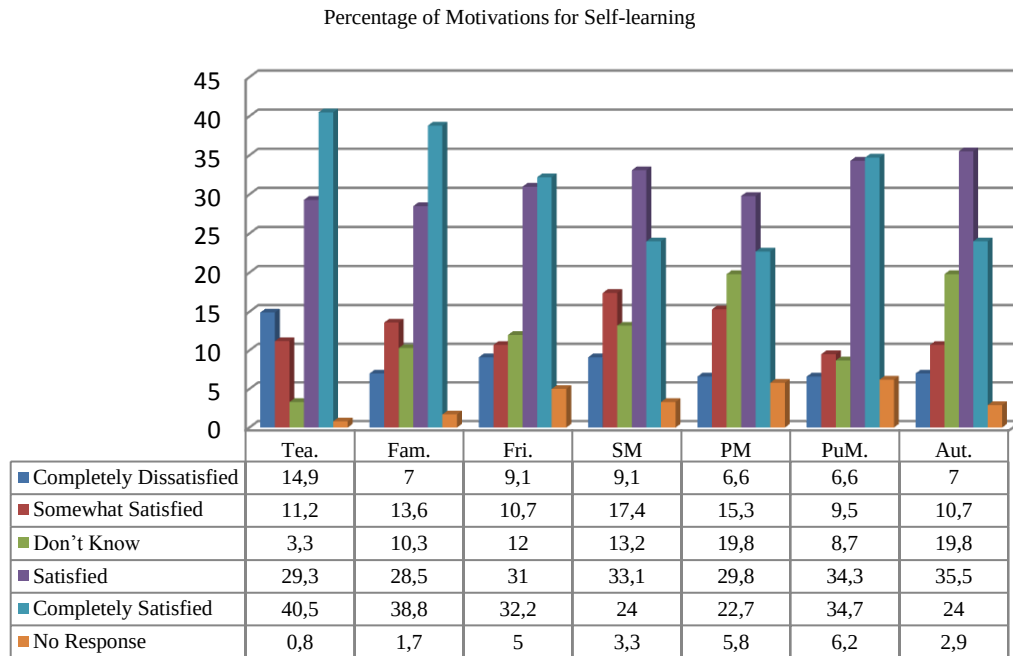
Table 5. Motivations for Self Learning

	Tea.	Fam.	Fri.	SM	PM	PuM.	Aut.
Completely Dissatisfied	36	17	22	22	16	16	17
Somewhat Satisfied	27	33	26	42	37	23	26
Don't Know	8	25	29	32	48	21	48
Satisfied	71	69	75	80	72	83	86
Completely Satisfied	98	94	78	58	55	84	58
No Response	2	4	12	8	14	15	7

*Teachers=Tea., Family=Fam., Friends=Fri., Social Media=SM., Print Media=PM, Published Material=PuM., Autobiographies=Aut.

Figure 2 presents the detailed analysis of motivations for Urdu literature students for self-learning. Social media is recorded as lowest 9.1% motivational factor for Urdu literature students.

Figure 2. Percentage of motivations for Self-learning



3. Promotional Factors in LLL

Students were asked to give their opinion on the scale of 1-5 regarding statements of LLL. The objective was to discover promotional factors in LLL. Results indicate (Table 6) that only 12% students are completely satisfied with the statement that regarding the promotional factor in LLL is as part of obligatory subjects. Only 12% students are completely satisfied with the given statement & 19.4% are completely dissatisfied with this factor. The students of Urdu literature strongly believe (35%) that the major promotional factor in LLL is Internet.



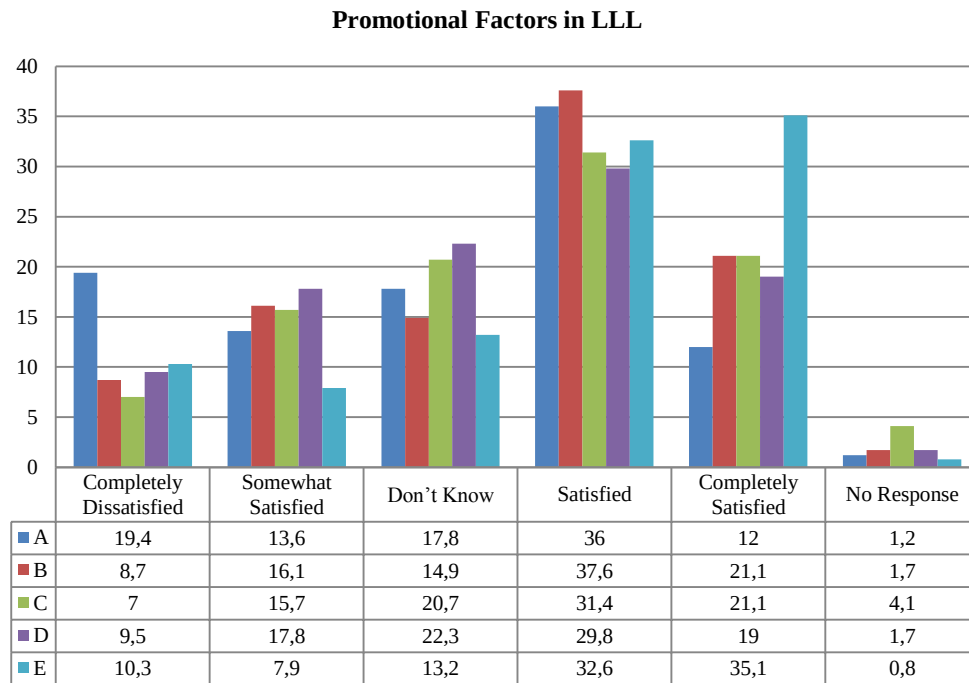
Table 6. Promotional Factors in LLL

	A	B	C	D	E
Completely Dissatisfied	47	21	17	23	25
Somewhat Satisfied	33	39	38	43	19
Don't Know	43	36	50	54	32
Satisfied	87	91	76	72	79
Completely Satisfied	29	51	51	46	85
No Response	3	4	10	4	2

*A= As a part of obligatory subjects B= As a part of elective subjects and advanced classes
C= At workshops and projects D= On TV E= On the Internet

Figure 3 shows the complete percentage and ratio of feedback of Urdu literature students explored during the research. Results show that students are highly satisfied with Internet as promotional factor and dissatisfied with the factor as obligatory subject.

Figure 3. Promotional Factors in LLL



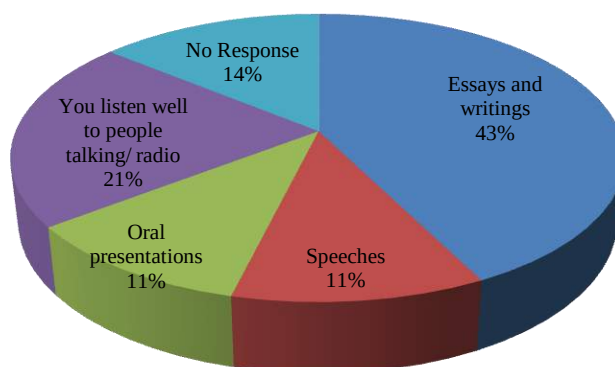
5. Mediums to learn language and linguistics

The one of the core objective was to explore the medium to learn language and linguistics. Results show that high ratio (43%) of essays and writings indicate as the medium to learn language and linguistics. Figure 4 draws a comprehensive feedback of students regarding the medium they were asked for learning. Low ratio of 11% for each oral presentations & speeches are recorded.



Figure 4. For Medium to Learn Language and Linguistics

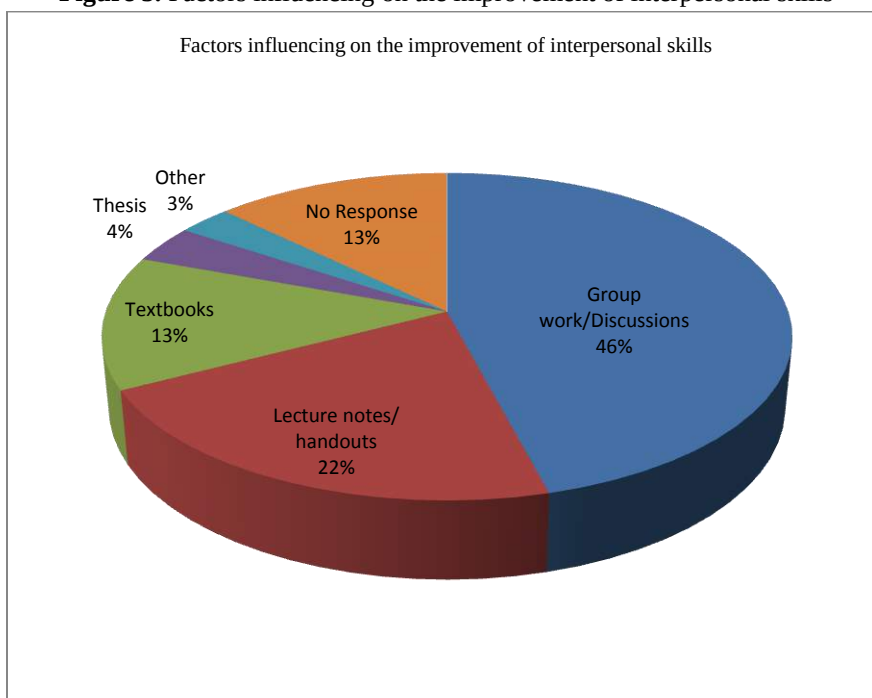
Percentage for medium to learn language and linguistics



6. Factors influencing on the improvement of interpersonal skills

Students were asked about the influencing factors to improve interpersonal skills. High ratio of results also indicates that 46% respondents firmly believe that group work and discussions are the major factors which can help to improve their interpersonal skills. Figure 5 shows that 22% students are in favor of lectures, notes & handouts can also enhance their interpersonal skills. It is observed that only 13% students like text books for improving their skills.

Figure 5. Factors influencing on the improvement of interpersonal skills





7. Opinions& background knowledge about LLL

Respondents were asked to give their feedback about opinions and background knowledge of LLL on the scale of 1-5 on the provided statements. The purpose behind this question was to explore the background knowledge of Urdu literature students about LLL. Students were asked to indicate that whether they regularly read professional journals in their field. Result shows that the ratio of students not read the journals of their specific field on regularly basis which is little bit high than the students who read Journals. Results show that most of the students enjoy learning. Students give their feedback about study other than course books. High ratio is recorded about this statement of “I always do more than minimum requirements in courses”. Table 7 presents the frequency of feedback about these statements.

Table 7. Opinions & background knowledge about LLL

	A	B	C	D	E	F	G
Completely Dissatisfied	39	13	21	13	16	9	20
Somewhat Satisfied	59	37	38	16	11	19	17
Don't Know	19	21	42	25	28	25	26
Satisfied	68	80	75	74	82	98	59
Completely Satisfied	33	65	41	91	82	61	89
No Response	24	26	25	23	23	30	31

A= I regularly read professional journals in my field

B= I genuinely enjoy learning

C= I always do more than minimum requirements in courses

D= I like to study

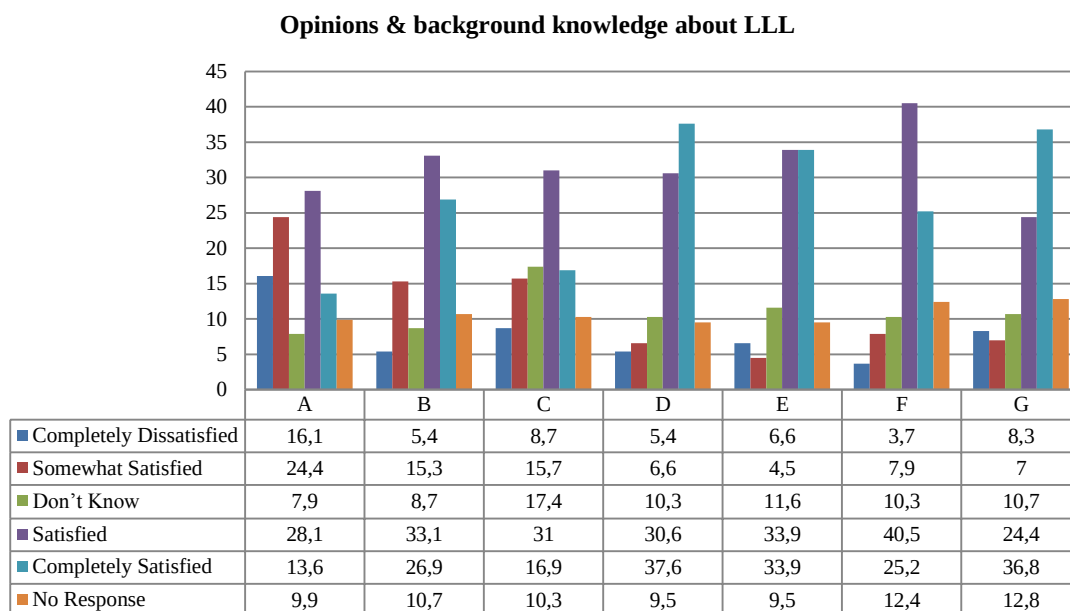
E= I know my personal learning style

F= I am actively involved in learning experiences

G= I never dislike when someone offers feedback that could improve my knowledge and skills

Figure 6 present the comprehensive details of feedback recorded during research.

Figure 6. Opinions & background knowledge about LLL





4. Opinion and feedback about lifelong learning (LLL)

Students were asked to give their feedback about LLL. The analysis of collected data (Table 8) shows that high ratio of students believes that LLL is a constant process. 41% students recorded their opinion that they are completely satisfied with this statement of Lifelong learning is a constant process and only 19% students were not in favor of this statement.

Table 8. Opinion and feedback about lifelong learning

	A	B	C	D	E	F
Completely Dissatisfied	45	14	21	9	17	16
Somewhat Satisfied	22	32	26	23	28	21
Don't Know	19	23	45	54	37	26
Satisfied	55	67	72	87	83	61
Completely Satisfied	98	100	71	61	71	112
No Response	3	6	7	8	6	6

*A=Lifelong learning is a constant process.

B= Lifelong learning is necessary for my future.

C= Lifelong learning covers training in various forms

D= Lifelong learning impacts the development of my competences.

E= Lifelong learning increases possibility of employment.

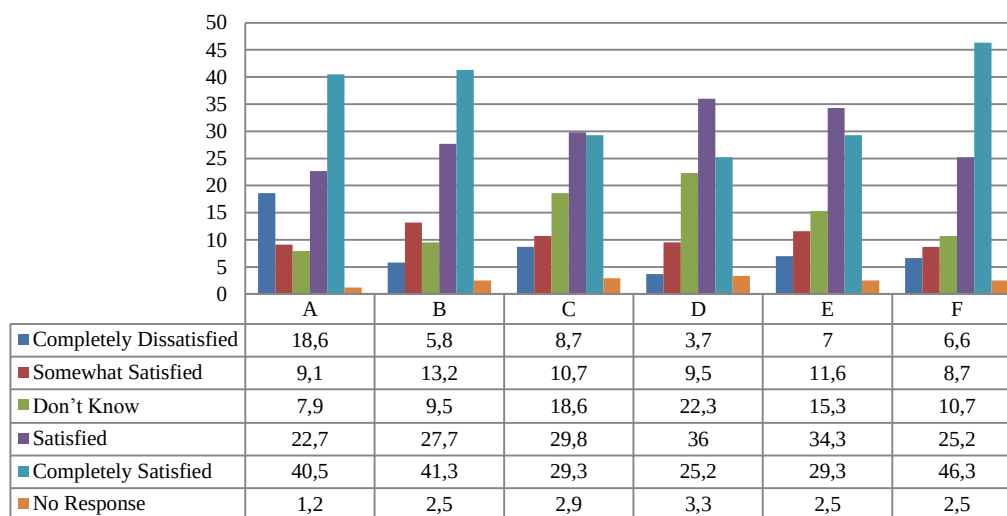
F= Lifelong learning is learning for the future.

Most of the respondents believe that LLL is necessary for their future. 41% students are completely satisfied with this statement and only 6% of respondents are not in favor and agree with the statement that LLL is necessary for their future. Result shows that 59 % are completely satisfied or satisfied with the statement of LLL covers training in various forms and only 9% are not agree that LLL covers training in various forms.

Collected data shows that the students of Urdu literature have knowledge of LLL and they have their own views weather in favor or not of LLL. Figure 7 presents complete feedback of students.

Figure 7. Opinion & feedback about LLL

Percentage of Opinion and feedback about lifelong learning





Conclusion:

1. Same ratio of male and female students shows that both are taking interest in Urdu Literature Study.
2. High ratio of students Use books and monographs on daily basis.
3. Only 02% Urdu literature students never use books to locate information.
4. Internet sources 40% and informal discussions 40% are the sources use on daily basis to reach towards required information.
5. Urdu literature students are not very familiar and comfortable with the use of Research journals and research reports while finding information.
6. Social media is recorded as lowest 9.1% motivational factor for Urdu literature students.
7. Core motivations while Urdu literature students engage themselves in self-learning or LLL is teacher and family as well.
8. Students strongly believe that LLL is a constant process.
9. The students of Urdu literature strongly believe (35%) that the major promotional factor in LLL is Internet.
10. Most of the respondents believe that LLL is necessary for their future.
11. Result shows that 59 % are completely satisfied with the statement of LLL covers training in various forms.
12. Students of Urdu literature have knowledge of LLL and they have their own views in favor or against LLL.
13. High ratio (43%) of essays and writings indicate as the medium to learn language and linguistics.
14. Low ratio of 11% for each oral presentations & speeches are recorded.
15. 46% respondents firmly believe that group work and discussions are the major factors which can help to improve their interpersonal skills.
16. It was observed that only 13% students like text books to improve their skills.
17. Students not read the journals of their specific field on regularly basis.
18. Students enjoy learning.
19. High ratio of students considered that LLL is constant process and necessary for their future.
20. Respondents believe that LLL increases possibility of employment and have impact on the development of their competence.

Recommendations:

- There is a dire need to redesign the text books and curriculum for Urdu literature students.
- Trainings and awareness sessions must be conducted for students on regular basis.
- Research should be activities encouraged.
- Oral presentations & speeches are also necessary for literature students.
- Teachers should encourage students to use Research journals and research reports.
- Teachers should play more vital role in LLL

References

- Bourn, D. (2001). Global perspectives in lifelong learning. *Research in Post-Compulsory Education*, 6:3, 325-338, DOI: 10.1080/13596740100200112
- Caravias, V. (2018). Teachers Conceptions and Approaches to Blended Learning: A Literature Review. In *Online Course Management: Concepts, Methodologies, Tools, and Applications* (pp. 912-934). *IGI Global*.
- Christine, J. (2012). Fiction, empathy and lifelong learning. *International Journal of Lifelong Education*, 31:6, 743-758, DOI: 10.1080/02601370.2012.713036



- European Commission (EC). (2001). Making a European area of lifelong learning a reality. Brussels: European Commission.
- European Commission (2001). Making a European area of lifelong learning a reality, Communication (European Commission), European Commission, Brussels, viewed 03 Mar 2019, <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0678:FIN:EN:PDF>
- Fischer, G. (2000). Lifelong learning: More than training. *Journal of Interactive Learning Research*, 11, 265–294.
- Forbes, H., & Dziegielewska, S. F. (2003). Issues Facing Adoptive Mothers of Children with Special Needs. *Journal of Social Work*, 3(3), 301–320. <https://doi.org/10.1177/146801730333003>
- Karaman, B. (2012). Yaşam boyu öğrenme bağlamında, ülkemiz milli eğitim sisteminde yeralan sanat eğitimcilerinin mesleki gelişim olanakları. Yüksek Lisans Tezi, Ondokuz Mayıs Üniversitesi, Eğitim Bilimleri Enstitüsü Güzel Sanatlar Eğitimi Anabilim Dalı, Samsun.
- Kind, T., & Evans, Y. (2015). Social media for lifelong learning. *International Review of Psychiatry*, 27(2), 124-132.
- Maynard, G., Simpson, M., & Hill, R. (2018). Navigating the path to digital literacy and telehealth with final year pharmacy students, *LifeLong Learning in Pharmacy*.
- Nash R., Chalmers L., Stupans I., Brown N. (2019) Developing Lifelong Learning Skills: Using a Traffic Light Report to Promote Competency Standards and Self-Assessment Among Pharmacy Undergraduates. In: Trimmer K., Newman T., Padró F. (eds) Ensuring Quality in Professional Education Volume I. Palgrave Macmillan, Cham
- Peters, M., & Romero, M. (2019). Lifelong learning ecologies in online higher education: Students' engagement in the continuum between formal and informal learning. *British Journal of Educational Technology*.
- Sun, L. P., Siklander, P., & Ruokamo, H. (2018, June). How to trigger students' interest in digital learning environments: A systematic literature review. In Seminar. net (Vol. 14, No. 1, pp. 62-84).
- Vargas, C. (2014). Lifelong Learning principles and higher education policies. *Tuning Journal for Higher Education*. University of Deusto. ISSN: 2340-8170. Volume 2, Issue No. 1, 91-105
- Weisskirch, R. S. (2018). Grit, self-esteem, learning strategies and attitudes and estimated and achieved course grades among college students. *Current Psychology*, 37(1), 21-27.



Teacher Leaders can Use Digital Tools to Improve Student Learning Experiences

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Abstract

Today, most students are motivated by the use of various technology tools. Since students are so savvy when it comes to using technology tools, teacher leaders and other educators must continue to find ways to incorporate the use of technology devices across the curriculum in a relevant manner to expand students' learning experiences in solving problems and gaining new and improved experiences in course work in school. When teachers integrate technology across the curriculum, students will have access, consistency and clarity to what is expected of them and what students can do to have real-world experiences. More teachers today as leaders in schools are infusing the use of technology tools to support course content and working collaboratively with their peers to engage in relevant professional faculty development. Teachers can use technology to broaden students' choices as they learn information in various classes and differentiate the instructional process based, again, on the needs and interests of individual students. Even novice teachers should not fear learning new and improved technology and different types of digital tools in the workplace, because in most settings there are individuals who are willing to show one how to use different types of digital tools. This study will focus on types and benefits of digital tools, collaborative leadership, professional development, strategies for instruction and assessment tools, learning generation preparation is urgent, and workplace expectations in the marketplace.

Keywords: Teacher Leaders, Instruction, Management Tool, Marketplace Readiness

Ways Teacher can Use Digital Tools

From a national and global perspective, technology is literally everywhere in our schools and work environment. Because our students have grown up using digital tools, it becomes a common practice for students to have access to digital tools in school. Too many teachers are sometimes too reluctant to embrace the use of digital tools in the classroom. Students today have been exposed to various digital tools and are comfortable using new and improved technologies. For students of all ages, it is absolutely natural to use digital tools in every aspect of their lives academically and socially (Lifer, Parsons & Miller, 2010). This is why digital tools in classrooms are becoming the norm. It is important for schools to adapt to 21st-century usage of digital tools. It is a sense of urgency that teacher leaders and school leaders use mini and large professional development activities weekly to get teachers to a stage of readiness in using a variety of technology tools to enhance their instructional delivery practice. The digital future is literally happening now! Teacher leaders can take the lead by illustrating how to use digital tools in many ways to enhance instruction, classroom management and to build stronger parent and community relations as follows: 1) Share with parents and community students' progress on various projects. 2) Support student learning in key content areas. 3) Process writing goals and objectives to support the curriculum i.e. reading, writing, speaking and listening skills. 4) Become an integral part of both the teaching and learning process. 5) Develop a clear set of goals, expectations and criteria for improvement in student learning. 6) Use technology information to collect, organize and interpret data and present results. 7) Analyze, disaggregated data and report the results to team members. 8) Offer great opportunities to identify strengths and weaknesses in curriculum offerings. 9) Facilitate developmentally appropriate learning experiences by providing information in a variety of ways (visual, auditory) and at a variety of levels. 10) Present lessons and illustrations using power point. 11) Utilize the expertise of other teachers in the educational environment. 12) Afford capable and interested students the opportunity to present during professional growth sessions. 13) In essence seek input from students too. 14) Have students to analyze case studies related to the course discipline. 15) Use a rubric for evaluating students' work and offer opportunities for improve where applicable. The mentioned benefits of digital tools can help to narrow the inequality gap in the learning environment (Hughes, 2009).



Using digital tools for education can stimulate student's curiosity, increase their engagement, and leads to better learning and comprehension. These factors are a priority for every effective teacher plus teachers can easily use digital tools in the classroom to enhance new learning experiences for student. There are over twenty innovative digital tools for classroom use that can be found online which can increase responsibility, relationships, and respect as follows:

1. Prezi is a digital software for creating interactive presentations. According to their research, the innovative way in which Prezi helps you make presentations by zooming, leads to more effective, more persuasive, more effective, and more engaging presentations compared to presentations made with PowerPoint.

2. Haiku Deck is the easiest way to create an amazing presentation on the web, iPad or iPhone.

3. Scratch can be used by people of all ages. This digital tool lets students create engaging projects like games, animations, interactive art, stories and more.

4. Animoto is one of the digital tools for classroom that can be used by both teachers and students for educational purposes. Animoto helps students to create animated videos easily. Students can also create photo slideshows, stitch various videos together, add text and more images to come up with a truly engaging video in the end.

5. Pixton can boost the student's visual thinking and creativity while it engages students to the fullest. This tool allows little and big students to make comics and storyboards. This activity can be both educational and fun.

6. BoomWriter is suitable for students of all ages but especially for the very young student who are still reluctant to write. BoomWriter encourages students to write a story together by voting for each person's version of the story.

7. Explain Everything is a digital tool that allows students and teachers to collaborate on an interactive whiteboard thus encouraging group activities. This software can also be integrated with Schoolwork, Dropbox, Evernote, GDrive, OneDrive and more useful apps. With the drag-and-drop options, Explain Everything is super easy and intuitive tool to work with in the classroom.

8. Educreations is an alternative to Explain Everything. Educreations allow students to explain any kind of concept in an interactive digital environment which means students can be taught and learn from anywhere. This app allows teachers to approach each student individually by replaying their work and allowing them to learn at their own pace which may motivate students to think of success vs failure.

9. Glogster is one of the amazing digital tools for classrooms which helps student to learn by using visual content. This app allows the user to create multimedia posters by combining text information, photos, and videos.

10. Flipsnack is an app for creating digital flipbooks. This digital tool can be used by teachers for educational purposes and by students for presenting projects in class in a really interesting way. Flipsnack encourages high student engagement in the classroom.

11. Padlet is a digital pinboard that allows participants (students and teachers) contribute by pinning different images, videos, text files, links, and more. Digital tools for classroom like Padlet motivate students to work together and brainstorm like a team.

12. VoiceThread is a great digital tool which can be used in the classroom in many ways, especially to practice the students' oral language skills. VoiceThread is basically an app for presentations and storytelling which actually records the student talking.

13. StoryJumper is an app for creating storybooks by using writing and illustrating skills. StoryJumper is certainly one of the digital tools for classroom which inspires a passion for reading and writing.

14. Storybird is a great digital tool for writing stories in a visually appealing way, thus motivating students to write and read stories. Storybird uses artwork to inspire people to write.

15. Quizlet allows students to learn a subject and assess themselves. Everyone can create their own study set or choose an already existing study set. Quizlet even lets you study on the go, so students can learn and test their knowledge from literally everywhere.



16. Socrative is one of the digital tools for classroom that will help teachers to assess their students and get immediate insight on students' knowledge. At the same time, using Socrative is fun for teachers and for their students, so basically, students can have fun while taking a test!

17. Edmodo is an Education Network which teachers, students, and parents can join. Edmodo provides a digital classroom environment and gives teacher access to many resources.

18. Schoology is a learning management system which is free to use and it allows teachers to create and distribute materials, give assessments, track progress, etc. Basically, with Schoology teachers can do everything that teachers do in Google Classroom, plus more features.

19. Piktochart is a great digital tool which can be used by both educators and students for various educational purposes. This tool allows teachers or students to create infographics, presentations, posters, and more visual materials. It is perfect for classroom activity, as well as home activity.

20. Visme great digital tools for classroom which provide educators and students with tools to create infographics, presentations, reports and more visual content materials. Visme provides all kinds of templates and graphic resources to help visualize any kind of data or assignment. One can insert videos, make animations, insert links and more (Hamburger, 2014).

Communicating by Using Social Media

Teacher leaders may wonder how to best serve an increasingly diverse group of students with various needs and interests. Teacher leaders may work with their peers in finding ways to use social media in classrooms to ensure that students are succeeding in work in a positive manner. By using social media digital tools could teach students to appreciate the wide-use of technology, but students can also be exposed to learning to be informed of the darker side to technology such where good ideas and intentions produce negative results or misleading information about different groups of people, places and things while communicating online (Wandel, 2008). Therefore, student need to be taught how to distinguish false information from the true information based on a number of verifying sources. Some might be facing more devices and other technology in classrooms and wondering what the teacher's role is in a world where instruction can be delivered from so many different sources. Teacher leaders and their peers must seek ways to improve classroom instruction and meet the needs of today's students by using a variety of tools to ensure student success and students will learn how to post their project-drive work on social media as they look forward to college experiences (Wohn, Ellison, Khan Fewin-Bliss & Gray 2013). Teacher leaders who wish to use social media in the classroom may do so by providing students with the opportunity to be part of the lesson planning of activities twice a week that may include the creation of a Facebook page for the a specific class, using blogging for students to post their homework or group assignments, and using twitter for short communication between or among students and teacher just to name a few ways to infuse social media in a regular classroom to improve learning methods in areas of instruction and management (Yang & Brown 2013).

Advantage of Technology Tools

Students' use of computers and other digital devices today is not limited to the classroom environment anymore. Many students have progressed and have made the computer a necessary tool for their work in school and away from school. Most students today own their very own laptop computer, tablet and cell phone. These convenient and necessary tools cause students to be much more mobile in completing their assignment for school as a group or working individually in door or out door, especially in warm and sunny climate. Instead of the cell phone being a problem in the classroom, teacher leaders could make great use of the adored device that most students have in their possession hands-on by creating meaningful assignments and activities in real-time regarding current issues related the coursework (Abreu, 2010). Other advantages of using technology for assessment can be administered more frequently, adaptive teaching can be given in meeting needs of students and less time needed in evaluating when assessing information, pre-assessment opportunities may be available to students and quick results may motivate students to improve and wanting to learn new skills. Also, technology assessment tools may be used to further build teacher leadership capacity. Other advantages to technology is to amplify learning, learn internet safety, active engagement, learning choices, peer teaching and learning, informs teaching, make videos and movies, enhances



narrative writing, solution to inclement weather, blend learning and helps student to stay organized (Chen, Heritage & Lee, 2005)

Building Teacher Leadership Capacity using Digital Tools

Can technology assist in building teacher leadership capacity? The value and use of technology can be used to play a key role in curriculum planning, organizing, developing, implementing, assessing and evaluating. Technology can be integrated into the whole environment of the school. For some teacher leaders, there is a need for additional professional development workshops regarding the use of technology. Some teachers may not be very comfortable with integrating technology in their instructional delivery process. According to (Hamilton, Halverson, Jackson, Mandinach, Supovitz & Wayman, 2009), some teachers do not use technology because there is a lack of experience with the technology itself. In schools, there is a need to support teachers using a collaborative approach through professional development in an effective manner with the use of technology tools so that teachers will become more comfortable and confident using various technology tools. Emerging teacher leaders in a digital age **must** adapt to the challenges faced by organizations in a fast-paced digital environment. Digital tools will equip teachers with the skills needed to lead and then translate knowledge into leading others and forming effective team collaborations in the digital age (The Business School for the World, 2019).

Collaborative Approach Using Technology

When students are working in small group activities, the computer can help to promote peer collaboration, cooperation and wholesome competitive problem solving exercises, enforce student group interdependence in project activities, distribute group tasks and responsibilities, disseminate relevant information to members of the group and observe and monitor group movement. When managing group content it is easy to have students to report out group work and activities, because the computer can be used as a lecture tool and to network (Boyd, 2007). The computer can also be used to articulate information on the “smart board” or other electronic boards, construct and illustrate concepts and ideas, manage information in an organized manner, assist with classroom management and instructional application, encourage students to participate in hands-on activities, demonstrate a number of illustrations for course clarity and support professional development activities.

A comprehensive, sustained, and intensive approach to improving teachers and school leaders effectiveness in raising student achievement is a top priority in all schools. Effective professional development is based on a model of continuous improvement, and should directly impact a teacher’s classroom practices and student achievement. Every educator should be engaged in professional learning at the school as part of the workday with the support of teacher leaders. Professional development learning should utilize the expertise of educators, such as teacher leaders in the school/district, with support from universities and other external educators using social media and digital tools as the center of all that is being done by humans (Roosevelt Institute for the Open Society Foundations, 2015). By creating a professional learning community in schools, teacher leaders can work with their peers in a collaborative manner all during the academic year and perhaps organizing and coordinating high engaged professional learning experiences during the summer. This process is characterized by collegial exchange in which educators work together to improve student learning by investigating problems; specifying goals for educator learning; engaging in collaborative learning through formal and informal professional learning strategies such as lesson study/planning, examining student data work, and peer coaching; reflecting on practice; and holding one another accountable for improved practice and results. Technology can be used by teacher leaders who conduct series of professional development activities for their peers to improve instruction and classroom management as planning is done during the summer months so that there is productive start for the fall. Effective professional development and learning communities have increased student learning based on research findings (DuFour & Eaker 1998).

Industry Strategies and Instructional Tools

Could classroom teachers use planning strategies to improve their students’ happiness and performance, not to mention their graduates’ readiness to work in America’s top organizations someday? The question is, what are the strategies that some business managers are using today in the workplace environment (The Business School for the



World, 2019)? It is about empowering your audience by using today to teach students that they must think and act as a learning generation. By creating a learning generation of students, teacher leaders and school leaders must recognize more than ever before that current education and appropriate skills are essential for students to realize their potential, if students as the learning generation will be able to contribute to local and national economic growth and social development and be able to participate global citizenship. The future now and later, digital tools must have a presence of common place in every working aspect of the society. School and training institution must be fully aware that technology tools will continue to shape societies globally and students for career and college readiness will be tested academically, socially and economically and for jobs of the future (World Economic Forum, 2016).

Technology digital tools can be used in content-based resources, instructional delivery process and to support the enhancement of the full curriculum. Digital tools can also be used to support professional development with curricular and teaching strategies that integrate technology in the content area of core and non-core subjects in the writing process. Teachers leaders can secure more professional development training before, during and after school, staff meetings, seminars/workshops, release days and, again, during the summer to become more confident in the use of digital tools (Hargittai, 2008). However, there is a need for schools to allocate relevant and appropriate software and hardware that meets the needs of teachers in order to improve teachers' skills, knowledge and attitude about learning technology through data review and assessment. In order to build teacher capacity, there is a need to provide onsite technical and instructional support for the integration of technology use for instruction and management and use data to assess the effectiveness of training materials. Lots of modeling is needed during and after the training sessions for effective digital tool usage, because teachers need to feel comfortable using various digital tools. It is important in schools to have teacher leaders form a team of professional learning experiences so that they can meet, practice, share strategies, ideas about the use of technology during the collection and assessment of data collected during professional development training (Bright & Friel, 1998)

Management and Assessment using Digital Tools

For a number of years, schools have had learning centers for students and teacher use. The computer can be used to manage and track students' academic progress, serve as a managerial and instruction tool, give directions for exploratory activities, encourage students to participate in classroom activities using various type of digital tools, encourage students to work in a cooperative manner in conducting qualitative and quantitative research projects with advisement from teacher leader using a web-based decision support tools (Feghali, Zbib & Hallal, 2011)

Teacher leaders and other faculty members or staff can use the computer in many productive ways as follows: keep attendance and grade record, keep individual education plans, prepare newsletters, fliers and brochures, prepare test items for formative and summative evaluations, make certificates, letterheads, posters, puzzles, hall passes, presentations using powerpoints, spreadsheets, video maker, word document, calculate data and hundreds of other ways that the computer can be useful when there is a limited number of computer for students and teacher leaders. Teacher leaders may use a number of digital assessment tools (Sheninger, 2014). Some of the well know assessment digital tools are google form, plickers, poll everywhere, socrative, nearpod, classflow, formative, classkick, padlet, seesaw, recap, kahoot, quizizz, quizlet, triventy and sketchparty. Overall, these digital tools can create videos, build lessons, add text, drawings, photos, audio recordings, share text, quiz games, flashcards, and can make group surveys. Most importantly, teacher leaders and school leaders should lead the way by ensuring that students are ready for the current and future marketplace and workforce economy based on students educational experiences, because today students must be viewed and taught as the learning generation in a digital age (Janes, 2005).

Schools must Create a Learning Generation

Economies globally will rise and fall based on their intellectual resources/human capital more than physical resources. Industries will continue to depend on human capital first than physical capital. The pathway leading to growth for developing economies globally will depend less on traditional practices for growth, but innovation and



new creation which will be lead by growth educationally. Therefore, teacher leaders and school leaders must stay alert. Education must and should lead the way in preparing the learning generation. However, too many educational training centers and institutions have outdated technologies on campus. Frequently, students come to educational institutions with more modern technology tools than the institutions and various ways to use digital tools compared to their teachers. Today, the world is facing a learning crisis globally. Education received by the learning generation must be of quality and current that meets industry demands in the marketplace. The goal by the global community is by 2030 that a quality education must be a reality. In some countries up to 80 percent of the jobs will become automated within 10 years from today; therefore, there must a workforce of individual ready to effectively work those available jobs (The Learning Generation, 2016). The learning generation must be prepared to become competent employees in various jobs now and the future. Schools and training institutions must rethink their vision, mission, goal and objectives when it comes to preparing students for future jobs.

Well known researchers all of whom are former K–12 teachers have started searching for strategies that successful managers are looking for in today's well-regarded organizations. These researchers found that the best managers in leading organizations do at least three things extraordinarily well: they empower their team, encourages teams to make reasonable decisions, they are great coaches, and they emphasize accountability. It is known that school classrooms are not operated as companies and students are not viewed as teachers' employees; however, it maybe time now for teacher leaders and school leaders to look at the value of the business models if the current learning generation of students are really to compete in the marketplace with the skills, knowledge and the professional disposition needed to succeed in the real-world of work (Johnson, 2012).

Of course, classrooms are different from companies, and students are not teachers' employees. However, in both settings, the person in charge is seeking to create a happy climate that encourages and maximizes positive results. If empowering teams, serving as good coaches, and emphasizing accountability are top principles for successful managers in "best places to work" environments, then similar principles and practices could work for teachers being tasked with motivating and guiding students. Furthermore, many students will one day look for jobs in workplaces that embrace these management principles. Classrooms would do well to prepare students by resembling future workplaces expectations more intentionally as students learn to make meaningful decisions as if students were in a real-world environment (Sellers, 2005).

Through a series of classroom pilots, the researchers found that teacher leaders can replicate the workplace for the success of top managers in cutting-edge workplaces by making seven specific, practical moves to introduce a similar culture into their classroom routine by using simulated activities that are typical to workplace environments in real world settings such as team-based projects, coaching new employees and organizational accountability as the learning generation in real-practice with student engagement (Heiberger & Harper, 2008). For example, when using a team-based approach in the marketplace this could develop the mindsets of an agency, being innovative and creative and having a passion for learning to improve the outcomes for the organization. Also, having available needed resources for students to access and use with confidence, would encourage peer learning and leadership. Second, being an effective coach, by creating a culture of objective feedback so that learning generation students can improve their work individually or as a group; show interest in students' abilities and give students a chance to lead activities with confidence. Third, it is essential to be accountable by letting students know that in "true form" it is necessary to establish goals, monitor progress and hold members of the team accountable as it is found in a real workplace environment (Jacobsen & Forste 2011).

Preparing Students for the Workforce is an Urgent Matter

The adoption and increased use of technology and other devices in classrooms are more than just playtime. Based on a number of research studies, the most efficient ways to prepare students for the future workforce, teacher leaders should encourage students to teamwork, use critical thinking skills, show responsibility, having adaptability skills, and continuous learning currently which is the concept and meaning of learning generation (Zhong, 2011). A high use of technology tools should be common in all schools. Too many schools are not deploying computer availability



for student use and access globally. The use and adoption of modern educational technologies using digital tools to gain knowledge and use of data, it is imperative to improve student performance and to help students to be prepared and know about serious challenges of the workforce that the learning generation will face in the future (Bright & Friel 1998). Using technology in a meaningful manner is about engaging students in ways that will increase their learning and ultimately groom them for the digital workforce of tomorrow which is an urgent manner. Furthermore, teacher leaders can train their peers too, about learning apps that enhance students learning experiences and equip them with future-ready skills that students will need to apply for jobs of the future. However, in order to best prepare students for the marketplace for future job opportunities, teacher leaders and school leaders must create and maintain a dialogue with industry leaders as partners to know what the expectations are for the learning generation related to needed skills and knowledge for career readiness. As more and more employers demand potential employees to be technology literate, schools must do a better job in all coursework with high relevancy and being willing to learn and use new technologies, because students need digital literacy to begin their journey toward careers and job success. Skills like creativity, critical thinking, problem-solving, and collaboration, again, are also necessary for students to have in order to success in the workplace, and being technologically savvy currently which will allow students to develop and hone these important lifelong skills as students ascend into different career positions in the workforce (Kukukska-Hulma, 2012).

Study Significance

This study is very significant because it highlights the importance of effective teacher leaders and school leaders rendering instructional delivery services that will train their peers to use a variety of learning digital tools to ensure that students being the learning generation are prepared for future job opportunities. Having been taught in schools using various types of digital tools that can be used to simulate activities that are typically found at the workplace environment, will give the learning generation competence to succeed. The thinking and action of the learning generation must be of adaptability and the willingness to learn and apply learning quickly in the workplace environment. Simulated activities will give students the learning generation today a stronger case of being knowledgeable, readily prepared for careers, college and the workplace with highly competent skills, knowledge and having the appropriate professional disposition to succeed in a real-world environment of work. It is important to note that the shift between industries and the changing demands of work with industries, expectations of high-level skills will continue to grow and many low and medium-skilled jobs will become obsolete because of various digital applications in place. It is a sense of urgency that teacher leaders and school leaders stay on top of industry's expectations so that all students are prepared to enter careers, college and jobs and being effective on tasks performance.

Conclusion

Teacher leaders will need continued support as they seek to improve instructional and managerial services in schools. It is important to align teacher evaluation systems and school technology goals and vision in order to support the needs of teachers and as peer teacher learn to be comfortable with integrating technology across the curriculum, to enhance student learning. Student learning for tomorrow's job opportunities must be a primary focus in all schools today. In order for the learning generation of students to be successful, student must gain current skills and knowledge needed to be a part of the productivity of the digital society as students seek jobs and careers in the marketplace. For the health of society, the learning generation must be prepared, being able to quickly adapt to the needs of the marketplace regarding jobs and careers for now and the future. Therefore, teacher leaders must be willing and able to help build peer teachers' capacity in all course disciplines. The training of teachers using technology digital tools should have many desired outcomes but not limited to the following: conducting internet research, designing web pages, creating multimedia presentations and publications, assessing students' work, understanding copyright laws and fair use of those laws. Teacher leaders need to support their peers by having students to conduct relevant research, improve their communication/productivity, participate in simulated activities and problem solving skills. It is all about students meeting expectations from high quality instruction using digital tools based on industry, state and national standards plus creating a mindset within the learning generation the importance of being prepared to participate proficiently in the workforce marketplace nationally and globally.



References

- Abreu, B. D. (2010). Changing technology = empowering students through media literacy education. *New Horizons in Education*, 58(3), 26-33.
- Adelman N., M. B. Donnelly, T. Dove, J. Tiffany-Morales, A. Wayne, and A. Zucker. (2002). *The integrated studies of educational technology: Professional development and teachers' use of technology*. Arlington, Va.: SRI International.
- Boyd, D. (2007). Why youth love social network sites: The role of networked publics in teenage social life. In D. Buckingham (Ed.), *The John D. and Catherine T. MacArthur Foundation series on digital media and learning: Youth, identity and digital media* (pp. 119–42). Cambridge, MA: The MIT Press.
- Bright, G. W., and S. N. Friel. (1998). Graphical representations: Helping students interpret data. *Reflections on statistics: Learning, teaching, and assessment in grades K–12* (pp. 63–88). Mahwah, NJ: Erlbaum.
- Doufour, R., Eaker, R. (1998) *Professional Learning Communities at work: Best Practices for Enhancing Student Achievement*. Solution Tree Press.
- Feghali, T., Zbib, I & Hallal, S. (2011). A web-based decision support tool for academic advising. *Educational Technology & Society*. 14(1), 82-84. Google Scholar.
- Hamburger, E. (2014). Real talk: The new Snapchat brilliantly mixes video and texting. *The Verge*. Retrieved from <http://www.theverge.com/2014/5/1/5670260/real-talk-the-new-snapchat-makes-texting-fun-again-video-calls>
- Hamilton, L., R. Halverson, S. Jackson, E. Mandinach, J. Supovitz, and J. Wayman. (2009). Using student achievement data to support instructional decision making (NCEE 2009-4067). Washington, D.C.: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc/publications/practiceguides/>.
- Heiberger, G., & Harpr, R. (2008). Have Facedbooked Astin lately? Using technology to increase student involvement. *Using Emerging Technologies to Enhance Student Engagement*, 124, 19-35.
- Jacobsen, W. C., & Forste, R. (2011). The wired generation: Academic and social outcomes of electronic media use among university students. *Cyberpsychology, Behavior, and Social Networking*, 14(5), 275-280.
- Janes, Joseph. (2005). "Introduction to Reference Work in the Digital Age", pages 64-65. Neal-Schuman Publishers Inc.
- Johnson, M. L. (2012). Integrating technology into peer leader responsibilities. *New Directions for Higher Education*, 157, 59-71.
- Kukulska-Hulma, A. (2012). How should the higher education workforce adapt to advancements in technology for teaching and learning? *Internet and Higher Education*, 15, 247-254.
- Lifer, D., Parsons, K., & Miller, R. (2010). Students and social networking sites: The posting paradox. *Behavior & Information Technology*, 29(4), 377-382.
- Partnership for 21st Century Skills. (2008). 21st Century skills, education, and competitiveness: A resource and policy guide. Retrieved from: http://www.21stcenturyskills.org/documents/21st_century_skills_education_and_competitiveness_guide.pdf
- Sellers, M. (2005). Moogle, Google, and garbage cans: The impact of technology on decision making. *International Journal of Leadership in Education*, 8(4) 365-374.
- Sheninger, E. (2014). *Digital Leadership: Changing paradigms for changing times*. Thousand Oaks, CA: Corwin A Sage Company.
- Roosevelt Institute for the Open Society Foundations. (2015). Technology at the future of work: The state of the debate. Retrieved from <https://www.opensocietyfoundations.org/sites/default/files/future-work-lit-review-20150428.pdf>
- The Business School for the World (2019). School for the Instead Knowledge. <https://knowledge.instead.edu>
- The Learning Generation (2016). The Education Commission Report <https://report.educationcommission.org/report>



Wandel, T. L. (2008). Colleges and universities want to be your friend: Communicating via online social networking. *Planning for Higher Education*, (37)1, 35-48.

Wohn, D. Y., Ellison, N. B., Khan, M. L., Fewins-Bliss, R., & Gray, R. (2013). The role of social media in shaping first-generation high school students' college aspirations: A social capital lens. *Computers & Education*, 63, 424-436.

World Economic Forum. (2016). The future of jobs: employment, skills and workforce strategy for the fourth industrial revolution. World Economic Forum, Geneva, Switzerland.

Yang, C., & Brown, B. B. (2013). Motives for using Facebook, patterns of Facebook activities, and late adolescents' social adjustment to college. *Journal of Youth Adolescence*, 42, 403-416.

Zhong, Z. (2011). From access to usage: The divide of self-reported digital skills among adolescents. *Computers & Education*, 56, 736-746.



Econometric Evaluation of Impact of Education Quality on Economic Growth in Azerbaijan

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Abstract

The article is dedicated to study of the impact of the quality of education on the economic growth in Azerbaijan. The quality index of education has been selected for two levels: a) up to higher education; b) higher school and post higher school. The indicator of average score (if available) that an applicant obtained in the current year on the country in student admission to the higher schools as a quality index of education in the country at the pre-higher education is offered as an alternative to the number of upper grades (10-12) in the secondary education. In the higher and post-higher education level, the number of articles printed on basic science and engineering per million people in Azerbaijan, and indexed on the Web of Science is taken as a quality index of education. Semi-linear type regression equations were made to assess the dependence of the indicators characterizing economic development.

Keywords: average score, research publications, GDP, salary, profit

Introduction

Achieving economic growth is one of the main functions of the state, but one is not the only indicator of development. GDP distribution and redistribution, social inequality, poverty, and some indicators of ecology and natural environment are among the key components of achieving decent living standards for the country's population. It is no coincidence that the Millennium Development Goals (MDGs) set out in recent years by the United Nations Development Program have focused on achieving sustainable development. However, achieving economic growth in each country has not lost its importance as one of the main indicators of socio-economic development of the country. Most economic factors, including economic, social, political, demographic, natural environment and resources, affect economic growth, including GDP growth. The role of education and its attitudes in these factors is significant. In this regard, the assessment of the impact of the education quality on the economic growth is actual problem.

The average score obtained by the applicant on the country in admission to higher schools is taken as one of the quality indices of education. The distribution law of the points obtained by the applicants in the admission exams to higher schools was tested in the article of (Yagubov *et al.*, 2018), and it was determined that it is not subject to normal distribution, and the distribution of the mean point is asymmetric to the right. It was concluded by the statistical analysis that the quality of education in the secondary schools is lower than normal. The role of education in development of society, including the role of economic growth, was studied in the article of



(Muradov A. Hasanli Y., Musayeva F, 2019), the relationship between incomes of population and education level in Azerbaijan was econometrically assessed and it was determined that there was an extreme offer of work force of secondary education without professional ability and this causes this group of employees to work in low-income businesses. As well as, the optimization issue has also been solved and it was found that the average duration of education giving maximum to the level of the GDP per capita in Azerbaijan should be 11.7 years, while the current term is 10.7 years (among the population above 25 years old). In the article of (Hasanli Y.H., 2014), Marx's repetitive and extensive recycling scheme was modified in the system of modern market relations and the exchange process between natural resources and non-natural resources studied and it was concluded that the exploitation of natural resources results in formation of extra money. And the extra money increases the demand to end product, not only the intermediate product of the non-oil sector, import extends, unilateral development appear that adversely affect sustainable development, human capital, including education and its quality. In the article of (Hasanli Y.H., 2013), the CES production function parameters in Azerbaijan were evaluated by the non-linear small squares method and it was concluded that the competitiveness in the labor market is lack for full capitalization of existing fixed assets (capital) as the mutual replacement elasticity of capital and labor was smaller. In the article of (Muradov A. J., 2017), the role of university education in economic development is studied, mentioning the increased demand for university education, and the possibilities of ensuring managerial, financial and academically sustainable universities in Azerbaijan, and enhancing their management, academic, financial and institutional freedoms to improve the quality of university education were investigated. In the articles of (Hasanli Y, 2017) and (Suleymanov E. et al (2018), connection of the effective administration of the economy and its correct answer to questions before it with education and its quality was researched in the example of the Azerbaijan economy. In the article of (Gylfason T., 2001), having studied the dynamics of economic development of countries rich in natural resources, it was determined that the share of public costs allocated to education in the GDP and the duration of general secondary education depend on the share of natural capital in the national wealth. So that, the natural capital compresses human capital, diminishes the quality of education, and thereby reduces the rate of economic development. There is a view accepted in the Western literature (see, for example, (Todaro, M. and Smith, 2015), (Jin and Jin, 2013)), the main driving force of economic development in the developed countries was human capital more than physical capital. Usually, the elasticity ratio of GDP in the Kobb-Douglas production function of the countries is generally higher than the elastic factor of the capital. On the other hand, the elasticity ration of the GDP in industrially developed countries for labour is higher than those in countries rich with resources.

The article of (Hanushek and Woessmann, 2007) provides a summary of the impact of the quality of education on economic growth. The article of (Bosworth and Collins, 2007) shows that it was determined as a result of inter-country comparison for 34 countries in the years 1975-2003 that high GDP on the country negatively affects the average annual growth rate of the GDP per capita and, the relative increase in pupils of 10-11-12 grades relative to the base year of 1975 affects positively and the number of articles per million person is also positive. The article of (Fernández-González et al., 2016) is dedicated to the PISA assessment allowing comparing the quality of secondary education in the countries. The quality of secondary education in Azerbaijan is studied in the article (Shabanov and Guliyev, 2017), and the impact of the quality of higher education of innovations in the article of (Hasanli and Shabanov, 2018).

The key question in this article is to analyze the dependence of a number of economic development indicators on the quality of education for Azerbaijan. For this purpose, appropriate econometric models for average annual growth rate of GDP per capita, economic benefits and average monthly salary indices were built.

The regression equation of dependence of the result (explained) indicator on explanatory indicators was studied in the study and parameters are based on statistical data for 2000-2017 and econometrically evaluated by the Least Squares Method in the EvIEWS Econometrics Software Package.



Explained variable (dependent, result or endogenous variable) - average annual growth rate of GDP per capita

Explaining variables (quality factors that affect the conclusion or freely, exogenous variables)

1) The average statistical score collected by the applicants;

2) Number of articles per million person indexed on the Web of Science database and related to basic sciences and engineering.

Based on the basic statistical characteristics and relevant tests of the econometric model, the conditions of Gauss - Markov were researched (Residual Diagnostics tests and other relevant tests), i.e., the model's adequacy level was determined.

The relevant data of the State Statistical Committee of Azerbaijan, the World Bank, and the State Examination Center were used in the study. Given the annual GDP growth rate per capita, the relevant data was collected to study the impact of the education quality indicators on the lower indices of GDP (income and wages). (See Appendix 1). Considering that admission to higher education institutions includes 11 years of secondary school education, 4-6 years of undergraduate and graduate education, may have a positive impact on economic growth after spending their years in building their career and gaining experience in the economy. From this point of view, these factors were included in the result model (with delay). An empirical and econometric analysis has revealed that the duration of this delay is 12 years. Azerbaijan in 1992-2018, about 100 thousand graduates annually gives the university entrance exams in a centralized manner. It is estimated that over one million people in Azerbaijan, which is a significant factor, have a certain impact on economic growth. Thus, the effect of this effect has been 2 years. This can be explained by the fact that the 2-year delay will have a positive impact on the annual GDP growth rate per person, and the implementation of the provisions and ideas set out in those articles will take about two years to come.

Method

The method of smallest squares is used in the study. The database is based on the official information of the SSC (State Statistical Committee) of AR (Azerbaijan Republic) and World Bank data. The report includes information on the GDP in Azerbaijan, economic profits, average monthly salary, average score obtained by students, and the number of articles per million persons. The present article means the articles referred to the basic science and engineering and indexed in scientific and bibliographic database of the Web of Science. The data covers the years 2000-2017. The GDP deflator and consumer price index for Azerbaijan were used to process primary data. The built-in models were implemented in the Eviews9 econometric application software package.

Three models were proposed to investigate the dependence of economic indicators on the quality of education. The first one of them describes the dependence of the average annual growth rate of the GDP on the average score and the number of articles. The specification of the proper regression equation is as follows:

$$GR_{0017} = C(1) + C(2)*LOG(AVERAGESCORE(-12)) + C(3)*LOG(QE\_SCI(-2)) + \varepsilon \quad (1)$$

The approach proposed in the article of Bosworth and Collins (2003) was used in building this model. Thus, the specification in their article is as follows:

$$GR_{7503} = \beta_1 + \beta_2 \ln GDP_{75} + \beta_3 SEC_{75} + \beta_4 \ln QE + \varepsilon \quad (2)$$

Where GR_{7503} variable is for the average annual growth rate of the GDP, $\ln GDP_{75}$ variable for the amount of the GDP in the values of the year 1975 in the logarithmic scale, SEC_{75} variable for the relative number of the pupils of 10-12th grades in relation to the year 1975, and $\ln QE$ for the education quality in the logarithmic scale. Where the second explanatory variable characterizes the education quality in the secondary education level, and the third explanatory variable expresses the number of articles per million persons on the country in basic science and engineering, that is, the education quality in higher and post-higher education step. And ε characterizes the normal and or asymptomatic normally distributed random quantity. We replaced the SEC variable that we



offered in the model (1) with the Average Score variable. Because the SEC variable is a quantitative indicator more than the quality indicator. Our proposed AverageScore variable shows the average score obtained by an applicant for admission to higher schools across the country. It should be noted that the admission to higher school in Azerbaijan has been carried out on the test system by the State Examination Center (former State Student Admission Commission) in a centralized form since 1992. Approximately 100 thousand applicants participate in test exams for admission to higher schools taking exams. According to the law of great numbers of mathematical statistics, the average score obtained by 100 thousand applicants may be considered acceptable as a quality indicator of secondary education in the country. Therefore, we consider that the specification (1) can be considered as a more advanced one for the countries where the average score obtained by the applicant in the admission exams for the higher schools in country.

The proposed second regression equation describes the regression relationship between the economic benefits and the education quality in the country.

$$\ln(\text{Profit}) = C(1) + C(2) * QE\_SCI(-1) + \varepsilon \quad (3)$$

Where $\ln(\text{Profit})$ variable is for the economic profit in the country in the values of the year 2017, $QE\_SCI(-1)$ variable for the number of articles per million persons in the country with delay of 1 year in relation with the current year.

Our offered third regression equation describes salary and the number of articles and GDP.

$$\ln(\text{Salary}) = C(1) + C(2) * QE\_SCI(-3) + C(3) * \ln(\text{GDP}) \quad (4)$$

Where $\ln(\text{Salary})$ variable is for the average salary in the country in values of the year of 2017, $QE\_SCI(-3)$ variable for the number of articles per million persons with delay of 3 years in relation with the current year, and GDP variable for the GDP in the values of the year 2017.

Findings

The Table 1 describes the main econometric characteristics of our proposed (1) regression equation.

Table 1. Basic econometric characteristics of the dependence of the average annual growth rate per capita on the education quality

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.013410	0.003268	-4.104018	0.0262
Log(averagescore(-12))	0.001770	0.000615	2.877190	0.0637
Log(qe_sci(-2))	0.001093	0.000226	4.835269	0.0169

Note: The dependent variable is the growth rate of GDP per capita.

As seen from the Table 1, the average annual growth rate of the GDP in Azerbaijan in the years 2000-2017 is the monotone function in respect of the average score and the number of article. So that, an increase of 1 per cent of the average score with the 12-year delay in the admission to higher schools across the country increases the average annual rate of GDP per capita by 0.0000177. Increase of the number of articles in the country by 1% with 2-year delay increases the explanatory variable by 0.00001093. Relevant delays may be explained by the fact that an applicant admitted to a higher school has a impact of statistical importance on the average annual growth rate of the GDP per capita in 12 years upon he/she obtains experience in 6 year after studying for 4-6 years in higher school and is admitted the higher school. And the 2-year delay in the number of articles shows that the article has a positive impact on the average annual GDP growth rate after 2 years from the time it is written, published and indexed. The Table 1 shows that all coefficients are statistically significant with at least 90% reliability.



Let's compare the result obtained in Table 1 with those in the article of Jang C. Jin and Lawrence Jin. (2013). One of the main findings in their article is as follows.

$$GR_{7503} = 17,001 - 2,093 \ln GDP_{75} + 0,031 SEC_{75} + 0,820 \ln QE\_SCI + \varepsilon \quad (5)$$

(s.e.) (2,086) (0,279) (0,011) (0,211)

Where s.e. means standard error. The equation means that the increase of 1% in GDP in the values of the year 1975 reduces the average annual growth rate by 0.02093 points. The relative increase in the number of students of the upper grades (10-12) of the secondary school increased the average annual growth rate by 0.031 points in comparison with the year 1975. In our equation (1), the increase of 1% in the quality of secondary education has increased the average annual growth rate by 0,0000177 points with 12-year delay. Comparison of the relevant coefficients shows that the share of secondary education in the average annual growth rate per person in Azerbaijan is approximately 3 percent. When comparing the impact of the article on the growth rate of GDP per capita, we find that this impact is characterized by approximately 3 point weakness factor in Azerbaijan. The effect of higher and post-higher education era occurs with a 2-year delay compared to the current one. The comparative analysis shows that the requirements for the quality of education in the labor market of Azerbaijan can not be considered to be high. We explain this by the fact that the economy of the country depends largely on oil.

The Table 2 shows the basic econometric characteristics of the model (3) we propose.

Table 2. Basic econometric statistics of dependence of economic profit on the article number

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.815204	0.128858	76.17051	0.0000
Qe_sci(-1)	0.007462	0.002313	3.226809	0.0104

Note: The dependent variable is the economic profit in logarithmic scale.

As seen from the Table 2, the 1-point increase in the number of articles with a 1-year delay will increase the economic profit by 0.7462%. The coefficients of the equation are of statistic importance of 99% reliability.

The Table 3 describes the basic econometric characteristics of the third equation proposed by us.

Table 3. Basic econometric statistics of salary on the article number and GDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.520383	0.545998	-2.784595	0.0212
Qe_sci(-3)	0.002546	0.000683	3.726073	0.0047
Log(gdp)	0.689046	0.051610	13.35090	0.0000

Note: The dependent variable is the salary in logarithmic scale.

As seen from the Table 3, 1-point increase of the article number with 3-year delay in relation with the current year increases salary by 0,2546%. And increase of 1% of the GDP increases salary by 0,689046%. According to the equation describing salary, we can say that in developed countries, usually increase of 1% of GDP increases salaries more than 1%. And as seen from our equation, it appears that this increase is 0,689%, which is less than 1%. We can explain this conclusion that production is more capital-intensive than being labor-intensive in Azerbaijan.

Results, Conclusions and Recommendations

We conclude from the established models that the quality of education has a positive impact on economic growth. We propose that as a quality index of the secondary education, the average score should be taken as an alternative to the variable of the number of pupils (SEC) enrolled in the grades of 10-12. Where the average score means the average score (if available) formed in the country in admission to the higher schools in the current academic year. We think that the appropriate average score will adequately characterize the quality of



education in the secondary education compared to the SEC variable. Furthermore, positive dependence of the profit in economy that is one of the economic development factors on the quality of education in higher education level has been determined. Moreover, the salary per head in Azerbaijan has been found to be positively dependent on the quality of education in higher education level and GDP.

Finally, we would like to note that the dependence of the Azerbaijani economy on oil is one of the main factors that slow down its innovative economy. To alleviate this delay, we consider that raising the quality of education in the long term should be targeted at one of the top priority issues for Azerbaijan. By examining labor markets in the region and world, we can select such segments there that the experts of our country should be competitive in those segments. And on the base of this case, supporting the export of highly qualified specialists from Azerbaijan can also benefit the Azerbaijani economy. Export of experts to foreign countries also has a positive impact on the country in addition to its negative effects as the brain drain. Thus, continuously interacting of these people with their homeland allows them to take advantage of chances for interest of their country in the first turn. Additionally, the opportunity of such professionals to return to their country after a certain period by improving their professionalism can also help them to benefit from their high-level skills for the country in the future. Work of the specialists that are citizens of the country may have a positive impact on newer independent countries not only from economic point, but also from diaspora activities.

References

- Abbaszade, M., Badalov, T., Shelaginov, O. (2000/2001-2018/2019). Scientific-statistical analysis of the results of admission exams for higher educational institutions for 2000 / 2001-2018 / 2019 academic year. Abiturient, 12, Baku: SSAC. Available at the <http://dim.gov.az/upload/iblock/4ae/4aed8eb97c25ce2e4372a46de60595e5.pdf> (accessed 16 July 2019)
- Bosworth, B. and Collins, S. M. (2007) 'The Empirics of Growth: An Update', *Brookings Papers on Economic Activity*, 2003(2), pp. 113–206. doi: 10.1353/eca.2004.0002.
- Fernández-González, R. *et al.* (2016) 'The Effects of Education Quality on Economic Growth: The PISA Assessments Approach', in *INTED2016 Proceedings*. Valencia, Spain: IATED, pp. 4292–4295. doi: 10.21125/inted.2016.2068.
- Hanushek, E. A. and Woessmann, L. (2007) 'The Role Of Education Quality For Economic Growth'. doi: 10.1596/1813-9450-4122.
- Hasanli Y. (2017) Organization of economics, its main issues and education. *Azerbaijan State University of Economics Scientific Reviews*, 5(5), 17-24.
- Hasanli Y. (2014). Research of Impact of Natural Resources Wealth on Economic Development and Human Capital Using Marx Reproduction Scheme. *EcoMod 2014*. July 14-18, 2014. Bali, Indonesia. Available at the <http://ecomod.net/conferences/ecomod2014?tab=downloads>
- Hasanli Y. (2013). The evaluation of mutual substitution elasticity of capital and labor factors by application CES function for economy of Azerbaijan. *The journal of economic sciences: Theory and practice*, 70(1), 77-96.
- Hasanli, Y. H. and Shabanov, S. A. (2018) 'Estimation of Impact of Innovations on the Quality of Tertiary Education', in Fikret Aliev and Tamer Bashir (ed.) *Proceedings of the 6th International Conference on Control and Optimization with Industrial Applications, Vol I*. Baku, pp. 185–187.
- Jin, J. C. and Jin, L. (2013) 'Research publications and economic growth: Evidence from cross-country regressions', *Applied Economics*. doi: 10.1080/00036846.2011.613785.
- Muradov A. (2017). Enhance the role university education in economic development. *The journal of economic sciences: Theory and practice*, 5(5), 5-16.
- Muradov A., Hasanli Y., Musayeva F. (2019) Estimation of the Education Influence on the Population Income. 37th Int. Scie. Conf. on Econ. and Social Development - "Socio Economic Problems of Sustainable Development". 4-15 February, 2019. pp. 592-602.



- Muradov, A. J. *et al.* (2019) 'Assessment of the Integration Relationships Between Science and Education at the Doctoral', in Ibrahimov, M and Aleksic, A and Dukic, D. (ed.) *ECONOMIC AND SOCIAL DEVELOPMENT (ESD 2019): 37TH INTERNATIONAL SCIENTIFIC CONFERENCE ON ECONOMIC AND SOCIAL DEVELOPMENT - SOCIO ECONOMIC PROBLEMS OF SUSTAINABLE DEVELOPMENT*. (International Scientific Conference on Economic and Social Development), pp. 1211–1219.
- Shabanov, S. and Quliyev, F. (2017) 'Expert approach to statistical assessment of education quality: The case of Azerbaijan', in *Application of Information and Communication Technologies, AICT 2016 - Conference Proceedings*. doi: 10.1109/ICAICT.2016.7991791.
- Statistical Yearbook of Azerbaijan (2000-2018), Baku, 2000-2018. "State Statistical Committee of the Republic of Azerbaijan" 2000-2018. Available at the <https://www.stat.gov.az/> (accessed 16 July 2019)
- Suleymanov E., Eminov A., Hasanli Y. *etc.*(2018). The Role of Education in Organization and Development of Economics in Azerbaijan. *Academic Journal of Economic Studies*, 4(2), 45–50.
- Todaro, M. and Smith, S. (2015) *Economic Development*. 15th edn. Edited by Pearson. Pearson. Available at: <https://www.pearson.com/us/higher-education/program/Todaro-Economic-Development-12th-Edition/PGM142511.html?tab=resources>.
- World Bank (various years) World Development Indicators. Available at the [https://data.worldbank.org/indicator/ IP.JRN.ARTC.SC?locations=AZ&view=chart](https://data.worldbank.org/indicator/IP.JRN.ARTC.SC?locations=AZ&view=chart) (accessed 16 July 2019).
- Yagubov, S. *et al.* (2019) Assessment of Distribution of Examination Points and Passing Scores of Exams Obtained in the Admission to Higher Education Institutions in Azerbaijan,. 37th Int. Scie. Conf. on Econ. and Social Development - "Socio Economic Problems of Sustainable Development". 4-15 February, 2019,pp. 185–187.

Appendix 1.

Table A1. Data set [2017=100]

Year	Gdp per capita (mln.man)	Average score	Salary (man)	Gr per capita (as per cent of the previous year)	Profit in economy (mln.man)	Qe_sci per mln. person
2000	1,85962876	169,53585277	135,26957745	n/a	1726,72628293	n/a
2001	2,02479223	211,68370182	156,43492149	0,001211	1955,75880654	n/a
2002	2,21878845	165,65863989	184,65735457	0,001285	2772,79606381	n/a
2003	2,43010015	169,44000000	221,62937163	0,001267	3241,89175339	31,8716
2004	2,64470544	176,11251209	266,75239012	0,001197	4651,40457787	41,4921
2005	3,30275551	186,77646474	302,64245527	0,003092	4811,93941279	41,0378
2006	4,38433086	184,83405500	336,87531814	0,003981	5556,10361876	33,2791
2007	5,41069077	191,19673732	418,08396251	0,002851	23568,32242430	47,5974
2008	6,25036790	204,28000000	440,07757717	0,001917	31630,36519282	53,3888
2009	6,75130432	180,45000000	470,86385700	0,001026	23774,90331215	68,4849
2010	7,00048378	171,53000000	495,55017873	0,000549	28706,22917874	66,4354
2011	6,91476939	186,17000000	504,43282374	0,000013	32325,57416353	69,9397



2012	6,97167286	177,29893605	545,94743995	0,000230	31531,80175218	73,1043
2013	7,34463334	178,54005790	568,88260249	0,000708	30670,13375655	50,7645
2014	7,45660483	171,53000000	586,63147088	0,000288	28132,92734120	41,6554
2015	7,45483820	184,08773399	567,11431240	0,000118	22238,04517600	43,3667
2016	7,14134312	183,06000000	564,27420000	-0,000324	24495,25600000	48,9602
2017	7,08571342	171,53000000	528,50000000	0,000011	27373,20000000	n/a

Note: The data set was formed by the authors on the basis of official data of the State Statistics Committee of Azerbaijan, the State Examination Center of the Republic of Azerbaijan and the World Bank. Base year was taken 2017 and relevant indicators calculated real prices 2017.



Determination of Price Strategies In Azerbaijan Food Sector Suitable With Current Competition Situations

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Abstract

Nowadays world economy is going to be changed very quickly and also it turns into a single market. The increasing level of technology is also influences to this process very closely. Food industry – which has and includes the most important socio-economic aspects is a complex activity that involves different sub-groups and represents great improvement in recent years. This level of development, key variable factors, understanding their dynamics and support for continuous competitive advantage has great importance together with food industry and national economy of the country respectively.

Increasing in every single day of our fast changing world of innovations the extremely important point for enterprises is to gain competitive advantage by adopting the innovative environment. In order to continue their businesses the firms have to keep up with the level of changes, on the other hand they should create new strategies to combat with their competitors. As known that, firms are in the active competition with their competitors, so in this point all these firms have to pay attention to proper planning and implementation of these strategies which is also extremely important from all points of view.

Turning to food sector, It would say that it is ranking with the first level in a comparison with other sectors with its quantity of produced goods and the number of labor force working in this field. Also rising in the volume of production, sustainable development of economy, experience for the improvement of efficiency this sector remains very crucial point in Azerbaijan. With the variety range of products produced by companies in our food sector, companies of Azerbaijan in food industry also are different with their competitive level and marketing strategies.

The main purpose of this research is to investigate applied price strategy of three example firms of Azerbaijan's food industry. In this research as a methodology marketing managers of firms interviewed and these marketing activities, competition levels, applied strategy ways of pricing was identified and analyzed.

Keywords: food industry, production, pricing, competition, firms, Azerbaijan's food industry

Introduction

In globalized world, the food sector has an important role in increasing the production potency of the economy in the transition to the economic development of the economy and increasing of the efficiency of the activities in all areas of the economy. It is no longer possible for companies to survive for a long time, which cannot keep up with the global competition conditions that emerge as a natural consequence of this situation and do not produce specific strategies. In view of the growing competitiveness of the food industry, which has a high production potential and is developing, we will become increasingly widespread, as long as we cannot add to the ability to produce strategies on the production skill we have.

Understanding the competition and key factors to the competitive analysis

According to the economics literature, competition can be defined as a form of market where the entry and exit is free, the information flow is complete, the goods are homogeneous and no buyer and seller have the power to influence the price alone and the total supply amount. Competition analysis is important in terms of making an industry decision and constitutes the basis for strategic decisions [11]. One of the most important models used in the identification of business strategies is Michael Porter's five power models. According to this model, there are five basic forces that make up the industrial structure. These powers are also known as the "Five Power Model"



Competition among existing firms

The number of competitors have been operating in the industry which that they are equal to each other, the slow or fast development of the sector, the high cost of fixed costs or storage costs, the product differences. In addition, the transition costs to another product, the different strategies, origins and personalities of the competitors and the obstacles conditions such as high or low are the most important factors determining the intensity of competition in the industry.

Potential Inputs

New companies to enter the sector has been constructing tremendous potential threat.

Substitute Goods: It prevents firms easily profitably pricing their products.

Recipients: The cost of the buyers, the amount of the products received, the differentiated or standardized products, the costs of changing the product of the buyers, the high or low profit of the products they supply, and the information about the market, determine the bargaining power of the buyers.

Suppliers: To increase the prices on the companies in the market, try to obtain a bargaining power by printing in order to lower the quality and service.

Pricing techniques in food industry and basic pricing approaches: The price range that a business determines for its products will vary that among the cost of the product and as agree to pay the maximum value by the consumer.

Cost-Oriented Pricing: In the cost-oriented pricing approach, costs are the basis for determining the price. There are two types of cost-oriented calculations: the cost-plus (profit margin) method and the target profit method.

Cost Plus (Profit Margin) Method: Cost plus (profit margin) method is the most widely used pricing method. The simplicity of the method is one of the most important reasons for its widespread use.

Target Profit Process: According to this approach, the entity targeting to reach that certain amount of profit at intended sales level. For this purpose, determination of that price will provide the intended profit at break-even point. However, the break-even point plays an important role in determining the price in this approach. The break-even point is illustrating minimum amount of sales that an organization can save on costs and make a profit. The break-even point is the amount of sales where the firm makes zero profits (neither loss nor profit). Prior to this point, the business launches to make a profit. The main disadvantage of target-oriented pricing is that sales exigencies forecast in advance.

Competition Oriented Pricing: In a competitive-oriented pricing approach, businesses determine their prices based on pricing and pricing approaches applied by competing firms in the market. Competition-oriented pricing methods generally are divide into two groups; pricing in the current pricing and bid pricing.

Pricing in the Current Process: In this approach, the enterprise is going to regulate its own price by looking at the competitors' prices rather than own costs and demand. The entity may adopt the price of the strongest competitor or a price slightly above or below it. In case of appropriation in the current procedure approach means that the price elasticity of demand does not known and especially avoiding of the possible harmful price-breaking war reflects the general tendency of the sector in price.



Bid Pricing Process: In this process, the pricing method commonly using in the carried out by the process of tendering. As a method of application, price offers could be made in closed or open procedure. While the firms demanding to receive the tender in open procedure stating their bids clearly, closed bids usually have given in an envelope as confidential processing.

Value-based price (also value optimized pricing): The basis of demand-oriented pricing method that how consumers perceive company products and the value of products in the consumer's eyes. According to the value-oriented pricing approach, the entity cannot arrangement products; determine marketing programs and then price. The price is considered together with the other marketing mix elements and then the marketing programs are decided. In the demand-oriented pricing approach, the price is determined according to the consumer's perceived value.

Development, Importance and Characteristics of Food Sector in Azerbaijan

Food industry ranks placing with depending on the quantity of production and the number of population working in the related industrial areas in Azerbaijan. The food sector has a crucial potential in the transition to the sustainable development with mode of the economy and in rising the efficiency of the activities in all areas of the economy capacity in Azerbaijan. At the below data table demonstrate that production intensity of food industry tends to rising up continuously, in the last two data columns of the table reveal an important issue. The amount of production in general industrial production varies greatly in the food industry. When structured data table as analyzing that possible to see that the industry is the locomotive of the country's economy in terms of GDP, related this issue, the general development of the food industry is far behind the growth rates of the country's economy.

Table. Production Dynamics in Industrial and Food Industry in Azerbaijan

Years	GDP		Industrial production	Share of Industry in GDP %	Share of Food Industry in Production	Share of Food Industry in GDP %	The share of food industry in industrial production %
	\$	M					
2009	44.289	40137.2	22563.6	56.21	1520.3	3.78	6.73
2010	52.913	42465.0	27978.2	65.88	1924.6	4.53	6.87
2011	65.990	52082.0	35026.9	67.25	2107.6	4.04	6.01
2012	69.687	54743.7	34565.0	61.13	2574.8	4.70	7.44
2013	74.160	58182.0	33898.1	58.26	2286.4	6.74	6.74
2014	75.240	59014.1	32110.3	54.41	2422.0	4.10	7.54
2015	50.844	54380.0	26369.4	48.49	2307.6	4.24	8.75
2016	37.830	60425.2	32300.2	53.45	2964.7	4.90	9.17
2017	41.256	70337.8	39892.5	56.71	2999.8	4.26	7.51
2018	45.418	79797.3	47 705.4	59.78	2996.9	3.75	6.28

Source: The State Statistical Committee of the Republic of Azerbaijan, "Azerbaijan in numbers 2003"; "Industry of Azerbaijan 2010", <http://www.azstat.org/portal> <https://www.imf.org/external/index.htm>

In order to developing the sector, it is unavoidable that increasing the production capacity of the products for the domestic and foreign markets, and restructuring fixed capital investments primarily in the enterprises and developing the cooperation relations with other food products producers.



Analysis of Marketing System in Azerbaijan Food Sector and Determination of Competitive Pricing Strategies

In order to determine the level of implementation of these strategies in Azerbaijan, analyzing of the marketing system in the food sector and reviewing of the competitive pricing strategies and literature review on these issues have been discussed with some of the companies that have a specific place in the food sector, A factory, B MMC and C MMC companies. In this research, it is aimed to reveal the level of marketing system analysis and competitive pricing strategies applied in these companies work system analyzing with operating in food sector, how efficient these studies are, how problems are encountered while implementing strategies and what had done to prevent these problems. In this research, interview method was used as a research study method. As including personal questions to 15 employees were asked to perusing the employees of the marketing department of the factory A, B MMC and C MMC in the food sector of Azerbaijan. At the time of the interview, marketing activities of the firms, which was they exhibited behaviors in the current competition situation, the level of the transactions related to the competition-oriented new price-setting strategies, and the problems encountered during the studies on this subject were analyzed in these situations. During research period, as belonging of significant roles in Azerbaijan's food sector, A factory with the marketing department manager, B MMC company with the company's marketing manager, C MMC with the company's brand manager face face-to-face involved in interviews had obtained to get of their answers within questions required by the research. Factory A launched its operations in 2001. The start of operation of the factory has brought new quality and new taste to the domestic production, confectionery and food industry. Factory A has gained great penetration with its various varieties in domestic and Central Asia, Russia, Georgia. In order to tighten its dynamics of factory development and expand the export area, it implements development policy with line of the demands of international standards. According research, all of answers received from the interview with the marketing branch manager of the company which is during the first years of production of the factory produced more sales-oriented movements. In period, increasing production and competitive conditions have brought the concept of quality with in order to increasing the quality and to make the consumer aware of the quality products for the marketing activities in the management of the factory as gained more value and the marketing branch was created in 2010. Nowadays, the company conducts its operations based on commercial marketing-oriented. Since 2013, the branch has been divided into sectors such as sales forecasting and analysis, market research and consumer research. Kaizen theory, "continuous improvement" theory is applied for foreseen that studies will be done better in branch management.

Competitiveness of A MMC: In accordance with responses from the interview with the marketing branch manager of the company, the factory is facing intense competition today. In order to compete, the factory applies its own methods and strategies. Moreover, that company conducts market research once a year and the factory often make cooperation with out-searching firms to ensure that for results are more accurate and clearer. Furthermore, the factory evaluates the market with more open eyes and information from sales representatives. Since the company sells in chocolate candies sold by weight in the market, it considers other brands that sell to its competitors with considers Roshen as Mars the biggest competitors. The price of company's competitors is more elastic as it is mostly national companies and its loyal customers are numerous, which are the most important values affecting the factory's competitive position. In the annual research analysis, concrete findings are obtained about the competitors and these findings are oriented towards evaluation in a way that gives the company superiority.

Determination of Strategies of A MMC: According to the answers from the interview with the marketing branch manager of the company, the most important of the 4M marketing components is the price in the marketing activities for the factory. The factory tries to reach the break-even point while determining the price of the produced product. Factory "A" acts in accordance with the cost-oriented price approach while determining the



price for the produced product. That factory is engaged in monitoring activities while making sales at the determined price. The price of the goods on the market is always monitored, analyzed and sales force is evaluated. If problems are encountered, solutions are prepared and presented to management after investigating the causes. Company B started to operate in Baku on 13 April 2000 in Azerbaijan. B MMC has established a wide commercial network equipped with contemporary technologies in accordance with today's demands, which supplies the products produced in its own production sector and the products of the companies it distributes to the market and consumers. B MMC has been cooperating with multifarious companies of the world since its establishment. During these years, he approached every company he worked for and showed great mastery in delivering the products. For this reason, B MMC was awarded with different certificates and diplomas by the companies it worked for thanks to its high quality and skillful work. Since 2013, B MMC has opened its own branch in Georgia. In addition, B MMC is also active in the research and development branch of the highly skilled marketing department. In addition to researching existing and new markets for the branch business and making proposals, the branch also conducts market researches for enterprises that are active in the Azerbaijani market and starts new activities, prepares presentations package and makes presentations. In marketing activities, the product is presented to the market, market evaluation, consumer tastes and preferences and consumer behaviors are taking part of such as activities. The company carries out its marketing activities with the employees of the marketing department and sales representatives outside the company. Sales representatives working outside the company provide information to the business about the market, competitors' movements in the market and market leading products. Business examining as which product is how much, at what price, which product is sold to consumer? What are the reasons? At what prices and numbers selling by competitors in the market? What are the reasons on why consumers prefer such these competing products? MMC's marketing department is doing its best to increase its sales. At the end of each year, it prepares marketing plans and strategies for the next year and presents them to management.

Competitiveness of B MMC: As reported by answers received during the interview questions with B MMC, the company faces intense competition. The company has 6000 kinds of products. This company offers food products to the Azerbaijani market and therefore competition is inevitable for this company as it encounters rival companies in the market. The company also putting forward competitor research in marketing search. The competitors of the company are domestic and international food producing companies. In today's food industry, consumers' preference for domestic food products varies in accordance with food types. These conditions sometimes provide advantages and disadvantages while competing for the firm. B MMC applies consumer-oriented campaigns, advertisements, promotion efforts, strategy and policies and competitor analysis to compete with competitors. This company tries to reach out to all kinds of information about competitors. The company is informed about competing products, innovations, price indices and sales figures through sales representatives, promoter's and supervisors who work outside the company. B MMC competes closely with its competitors in the current competitive situation and improves its marketing activities in order to compete. B MMC's Price Determination Strategies: According to the answers received from the interview, B MMC believes that the price is the most important factor for the products to be sold at the desired level. When determining the price of the product, company takes into account product cost, prices of the competing products, and demanded price. In setting up the price, B MMC considers consumer expectations, revenues and break-even point in the real market. After setting the price, the B MMC group of markers carried out the necessary researches and prepared a package of proposals based on the results of these research analysis within presented them to the general management, production management and latest one as approved the price by the company general manager. The optimum price for the firm is the product cost within the prices of competing products and the figure obtained from the demanded price average. While determining a price strategy, the company primarily conducts Fusion and competitor analysis and sets its own strategic goals with applies short- and medium-term strategies to achieve these goals. The company always monitors and controls its strategies in practice. Successful strategies and the right price are the desired results for B company. C MMC launched to operate as distributor of domestic



and international confectionery products in 1992 within the scope of Azerbaijan. C MMC is the leader among wholesale and retail businesses of confectionery products and today has advanced sales channels in all regions of Azerbaijan. The main objective of the company's marketing policy is to expand the sales market, expanding the distributor network, and the ultimate goal is keeping of the product close to the consumer at the maximum level. Marketing Activities of C MMC: In receiving answers from the interview with the brand manager of the marketing department of the company, C MMC has a wide range of marketing activities. The company has a large marketing department divided into different departments. As marketing activities, the company conducts market, consumer, competitor and product researches, determines marketing plans and targets, collects and uses of necessary data and accepts important marketing decisions. The company also implements Benchmarking and Guerilla Marketing methods. To make marketing decisions, the company always conducts internal and external valuations, business analysis, main market analysis, competitor analysis and sales analysis.

Competitiveness of the C MMC: The company faces intense competition in the market. In order to compete with its competitors, the company always performs competitor analysis and tries to obtain all kinds of findings about competing companies. Sometimes the company applies partisan marketing for this. C MMC always monitors the sales volumes, price indices and marketing activities of competitors. Competitor behaviors are taken into consideration in marketing decisions. Today, C MMC has a 42% market share compared into its competitors. The company considers this indicator as a success for itself.

C MMC's Price Strategies: According to the answers received from the interview with the marketing department of the company, the firm acts in accordance with the cost-oriented price approach when determining the price of the product produced, but in some cases the company uses psychological pricing methods. While determining the price, the company takes into consideration some important elements that are related to the market, consumers, competitors, company values. The price is determined by the economic planning department and not by the marketing department. The marketing department only prepares proposals based on the researches. While determining the price strategies, the company prioritizes the objectives and values of the company, subjective and objective reasons. The strategies in the application are medium term and submitted for evaluation at the end of each year.

Conclusions And Recommendations

Nowadays, the fact that there are many companies in the food sector of Azerbaijan creates a fierce competition. Every company that makes production and sales in the food sector applies intensive marketing activities, competition and price strategies in order to keep up with its competitors and keep pace with them. There is strong competition due to changing technology, new customers, new inventions, changing consumer demands, low durability of food products and flexibility of demand. Firms seems situations as have to compete violently with each other. Researches carried out to determine how the processes related to the analysis of the marketing system and competitive pricing strategies in the food sector of Azerbaijan which are applied in the companies operating in this sector, the contributions of these studies to the company, what problems are encountered in this process, and what kind of solutions are sought within research analysis based on A, B and C MMC companies the following results were obtained by them.

A, B and C MMC apply competitive and price strategies to keep pace with the current competition and analyze the strategic decisions which is made as a result of these strategies before and after implementation. Taken by the success of the decisions and the strategies implemented are measured. In order to achieve superior competition, the company attituding continuous market research and always considers the products, services, campaigns and incentives of its competitors. As it is seen from the results of the research, factory A, B and C MMC are aware of the competition and apply competitive and price strategies in order to keep up with it. However, weaknesses,



deficiencies and failures may be involved in these strategies. Generally, firms establish short- and medium-term strategies, within setting up strategies the average of 3-5 years.

Companies could be competing effectively with their competitors that is:

- Apply right price strategies;
- while implementing these strategies, they market should be considered as demanding for the product
- demand forecasts should be made correctly,
- adequate research on the product,
- product based 4P should be applied,
- product indexed pricing should be implementing instead of competitor's prices,
- firms should be given the type of product to customer representatives which can adequately deal with.

Companies are building their marketing strategies mostly on the product complex, so concentrated strategies for the product should be determined and market research should be more professional. Companies should determine their real competitors in order to make their success successful and ensure effective competition and develop price applications for the target market.

The aim of the research

The aim of the research is to examine applied price strategy of three example firms of Azerbaijan 's food industry. In order to achieve a goal of the research the marketing managers of the selected firms were interviewed and these marketing activities, competition levels, applied strategy ways of pricing was identified and analyzed.

Research goal, and tasks

As mentioned above this study aims to achieve a goal of investigation of price strategy of three firms of Azerbaijan's food industry. To achieve the goal of the selected research project the tasks of the study were described below:

- 2.1 To determine the level of PRICE strategies in Azerbaijan's food industry
- 2.2 To examine of the marketing system in the food sector of Azerbaijan
- 2.3 To review the competitive pricing strategies of chosen companies
- 2.4 To interview selected employees of the A, B MMC and C MMC.

Method

In the taken study, a quantitative method has been used effectively. The researcher used an interview method which 15 employees were asked to perusing the employees of the marketing department of the factory A, B MMC and C MMC in the food sector of Azerbaijan.

References:

- Competition Law and Policy Special Commission Report, DPT Printing house, Ankara, 1994.
- Michael E. Porter : Competitive Strategy: Techniques for Analyzing Industries and Competitors, With a New Introduction, The Free Press, New York, 1998.
- Michael E. Porter : How Competitive Forces Shape Strategy, Harvard Business Review, 1979, Vol 57.
- The State Statistical Committee of the Republic of Azerbaijan, "Azerbaijan in numbers 2003"; "Industry of Azerbaijan 2010"
- Remzi Altunisik, Ömer Torlak: Introduction to Marketing, Sakarya, Turkey, 2017
- Philip Kotler: Principles of Marketing, Prentice Hall, European Edition, 1996.
- Courtlands L. Bovee, John V. Thill : Marketing, McGraw Hill Inc., New York, 1992,



Məmmədov, Pərviz Hacı: "Improving the Variety Policy Management in the Food Industry of Azerbaijan, Turkey-Azerbaijan Joint Venture " Master's Thesis, Baku 2013.

Nasimi Kamalov, "Improving marketing organization directions in food products market in the Republic of Azerbaijan", Thesis, Baku, 2011.

Official Reports:

The State Statistical Committee of the Republic of Azerbaijan, "Azerbaijan in numbers 2003"

The State Statistical Committee of the Republic of Azerbaijan: Azerbaijan's Statistical Indicators 2010".

The State Statistical Committee of the Republic of Azerbaijan "Industry of Azerbaijan".

http://bbaraz.home.anadolu.edu.tr/Ry_3.pdf

http://azerbaijans.com/content_719_tr.html

http://www.minenergy.gov.az/mie/data/AR_qida_senayesi.pdf



Competitiveness of Azerbaijani Universities in Global Education Environment: Main Trends and Development Directions

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Abstract

The article analyzes the main problems of higher education institutions in Azerbaijan and reflects the trends of their international competitiveness in the context of the factors determining the competitiveness of universities in the modern global educational environment. In this article, the author analyzed the competitiveness of universities, examining the context of scientific research, educational services and solving important social problems, and also analyzed the system of indicators characterizing the main competitive advantages of higher education institutions in many countries of the world, criteria for evaluating universities of the world and their place in rating tables. The factors ensuring the competitiveness of Azerbaijani universities have been identified; priorities, strategic goals and directions of state policy in the field of science and education have been systematized, which will contribute to the development of highly competitive universities. The reasons that impede the development of world-class national universities based on the current state of higher education and development trends in Azerbaijan are the lack of financial resources of higher education institutions and the ineffectiveness of the university management model.

The author systematizes the main priorities, strategic goals and directions of state policy aimed at creating competitive universities in the field of research and education in the country. According to the author, the role of the state in the development of higher education is to develop and implement integrated strategies to ensure reform of the system of management of the higher education sector and an effective academic competitive environment for creating world-class universities. According to the author, the national system of higher education in Azerbaijan has significant potential for development, the more productive use of which, with appropriate government support, can become the basis for the development of highly competitive global universities. One of the most effective ways to transform Azerbaijani universities into world-class universities is to invest public funds in the development of the research potential of leading universities in the country.

Introduction

Higher Education Institutions (HEIs) try to establish competitiveness in global education market impacted by number of factors of the modern globalising world, such as transition from commodity economy to knowledge economy, aging population, rising living standards, application of modern technology in education, creation and development of standardised education systems globally and nationally, and increasing pace of academic research in universities.

Education sector is a social and economic category with specific operations. This sector provides customers with information, specialisation, knowledge, skills and competencies acquisition services to enable their intellectual, cultural and spiritual development. Universities are recognized by institutions of education, training, research and publishing. It is assumed that higher education institutions created to perform these functions will simultaneously be engaged in research that solves the problems of society. Universities / or Higher Education Institutions are one of the most important institutions affecting the society in which they live (Titrek O., Zafer G.D., & Sezen, G. (2013))

Higher Education Institutions (HEIs) have a unique role and responsibility for the future and for driving the development of a sustainable society. HEIs are charged with the task of fostering sustainability in the leaders of tomorrow, developing solutions and methods to address a sustainable future, and ensuring that we contribute

knowledge to society. HEIs must also ensure that our everyday operations and practices are consistent with a sustainable future and that we work to holistically integrate sustainability into both the mission of a university and our daily tasks(Göran Finnveden ,Julie Newman and Leendert A. Verhoef (2019))

The basic principle of development is to contribute to science, which is the responsibility of higher education, to turn the information received into technology and, thus, make society happy and prosperous. Main goals of the national education system modernisation process are to improve service quality provided by higher education institutions in Azerbaijan, and increasing competitiveness among not only local, but also CIS and other overseas school leavers and applicants. Hence of utmost importance is higher education institutions's ability to explore aspects jeopardizing their provision of globally competitive services, as well as to capitalise the experience of global leading universities.

Materials and Methods

Theoretical foundation of global competitiveness of universities

To understand global competitiveness of universities it is important to review factors impacting its generation, as well as profound analysis of government's science and education policy directed to increasing competitive potential of higher education system. Marketization of education has turned students into consumers dictating their own terms and has brought about a number of alternatives to universities for talented students. Therefore, universities need to define clearly what they can offer, differentiate themselves from competitors, and identify their target audience among potential student groups.[[Michael Barber, Katelyn Donnelly, Saad Rizvi, 2013]]

Theoretical and empirical foundation of issues and recommendations around competitiveness of universities was extensively researched by academics such as F. Altbach, L. Armstrong, A. Gobs, J. Lombardi, V. Klark, J. Salmi, R. Geiger, S. Marjinson, O. Titrek and others. J. Wang, H. Graham, R. Geiger, N. Diamond, S. Marjinson, A. Teyk, I. Frumin and others systematically researched establishment of competitive advantage in higher education in the era of globalisation and government's role in creation of national universities with leading global footprint.

Nevertheless, many aspects of this scientific problem are not sufficiently explored. Additionally, methodological validity of effective government strategies to address global competitiveness of universities, particularly in developing countries, is still a relevant research topic.

Most prominent researchers [Geiger, 1993; Clark, 2006; Salmi, 2009] think that, the main propellant of the innovative state development in the modern environment is establishment of competitive universities that enable gathering and multiplication of individual and national intellectual potential, as well as systematic transfer and integration of education, science and technology into production process. Dominance of highly competitive universities on a global level is measured by research capability transformed by a country's innovation potential. Famous Australian university education expert S. Marginson proposes that “ a nation with a high research capability can better manage its market share in the global knowledge economy” [Marginson, 2006], it typically has an advantage in ability to take global initiatives, cooperate and compete, utilise the best ideas from across the world, and attract talent and capital. On the other hand, a nation with insufficient research capability falls behind significantly in building highly professional expert capability, establishment of scientific basis for industrial application, effectiveness of social policy (Marginson S. 2006).

American researchers J. Macionis və L. Gerber think that universities reflect education system that form social structure of community in conjunction with unifying system of social institutions – economy, politics and religion ¹[Macionis Gerber, 2008]. Simultaneously, world class university status helps to maximise production of constructive goods and plays an important social role in prosperity of the whole society and its regional communities (as the third role of university) [Marginson, 2012].

I think, globally competitive university means a higher education institution that has an ability to strengthen its position in the specific segment of global education services and intellectual activity products' market. This ability is developed by educational institutions that possess innovative system, have access to financial

resources, provide high quality education services associated with effective realisation of intellectual potential, and involve in scientific research.

Therefore, global competitiveness of universities is conditioned upon their scientific research activity, provision of educational services, and global competitive advantage in solving important social problems. Characteristics of competitive advantage acquired due to specific factors are important in preserving high level competitive status of an educational institution. Highly productive intellectual capital (talented researchers, teachers and students) and impactful research results; developed material, financial, and infrastructure foundation; effective and transparent management underpinning academic independence; achievements in priority research fields of global science; compliance to high education standards; financial and institutional support from the government can be cited as relevant competitive advantages. These factors are among the most cited by researchers.

The following can also be reviewed among other factors of the global competitiveness of higher education institutions: globalization with the aim of producing a positive image of the higher school among not only the international community, but also foreign investors, as well as collaborating with businesses to commercialize university activities, and thereby gaining financial sustainability of university; thorough diversification of university activities displayed in enhancing its role in economic and social life of society; integrating into the groups of countries dominated by science and education in the world.

Moreover, some scholars refer to the following as "accelerating" factors which contribute to increasing the global competitiveness of universities: making intense use of national diasporas' proposals to establish new universities or upgrade existing ones (involving emigrant scientists in teaching); introducing English as the main language of instruction; specialization of universities in relatively narrow fields; analyzing and introducing the best international practices in modernizing university activities [Salmi, Frumin, 2013].

So, all of the above listed factors must be in the spotlight along with ensuring their synergistic interaction for pursuing public policy in the field of science and education aimed at the establishment and development of global competitive universities.

The competitiveness status of Azerbaijani universities

In general, the competitiveness of higher education institutions is measured by criterion that contain such elements as the level of infrastructure, the provision of teaching process with methodological resources, composition and quality of academic teaching staff, employment efficiency, scientific activities of students, extracurricular work conducted by the higher education institution with students, international activity, inclusive education, etc. These criteria, in turn, consist of dozens of sub-criterion that provide a profound and detailed analysis of the university's educational activities (Table 1).

Table 1. Evaluating the competitiveness of the higher education institution on the criteria "employment efficiency" and "university's international activity"

Employment Efficiency	International Activity of Higher Education Institution
– names of companies which employed higher school graduates (both Azerbaijani and foreign companies).	– the number of students enrolled in exchange programme
– the level of remunerations of higher school graduates	– the number of scientific articles published in collaboration with international scientists.
– internship opportunities during the study period.	– the number of international professors invited to deliver lectures
– the number of the employed through channels of higher school.	– the number of international experiences for carrying out academic research work
– the number of graduates who independently get a job	– the number of foreign students studying at the higher school
– the number of graduates who decided to proceed on their scientific efforts.	
– the number of internship bases with post-employment opportunities	

Source: The Table was made by the author.

Elements of competitive advantage shown in the Table were poorly developed in Azerbaijani higher educational institutions compared to a variety of foreign universities. While inclusive education, international activity, mobility of students, innovative infrastructure, and other elements have recently been developed in country's universities, they are still far more behind the world's leading universities in these areas.

The level by which Azerbaijani universities are falling behind can also be determined by the rankings of the world universities. As a rule, higher education institutions are ranked on the following criteria: teaching level, international integration degree, resource provision (innovative infrastructure), university popularity among university entrants, and degree of demand for university graduates among employers, the developmental level of cooperation systems of higher education institutions with business entities and industrial sector, and academic researches.

Each ranking has a methodology that contains a set of certain evaluation criteria. For example, some universities are measured by a number of its Nobel Prize-winning graduates, while some is assessed with its upgraded logistics, etc. The most prestigious rankings all over the world held on educational services are Times Good University Guide, US News, QS World University Rankings and Shanghai Ranking.

Table 2. Ranking of Azerbaijani Universities (Top-1000), 2018

	Name of University	Evaluation
1	Baku Engineering University	701-750
2	Khazar University	701-750
3	Baku State University	801-1000

Source: <https://www.topuniversities.com/subject-rankings/2019>

Table 2 reveals that Azerbaijani universities have not ranked even on the top 500. In this list, BEU, Khazar University and BSU shared the ranks 701-1000 in Top 1000. Azerbaijani universities are listed among 200 universities in the top universities rankings of the developing European and Central Asian universities. So this ranking lists BSU on the 95th, Khazar University on the 100th, Economic University (UNEC) on the 161-170th, Azerbaijan University of Architecture and Construction (AUAC) on the 171-180th and University of Languages (AUL) on the 181-190th place.

Table 3. Rankings of Azerbaijani universities among the best universities of developing Europe and Central Asia in 2019

	Name of higher school	Evaluation
1	BSU	95
2	Khazar University	100
3	UNEC	161-170
4	AUAC	171-180
5	AUL	181-190

Source: EECA University Rankings 2018

Many scholars believe that the funds allocated by state to education have an important role to play in ensuring the competitiveness of education (Salmie, Frumin, 2013). Nevertheless, the analysis proves that this is not always a criterion to increase the level of competitiveness of higher education institutions worldwide. For example, East Timor, Lesotho, Cuba, Moldova, Kyrgyzstan and other countries, which are ahead of the rating in terms of education expenditures (in % relative to GDP), are not recognized by world-class universities. This is the case for Azerbaijan too. So, even though the education expenditures envisaged in the state budget of Azerbaijan in the last decade have increased dynamically (AZN 2.043.9 million was spent in 2018, and AZN 2 billion 274 million was allocated in 2019 for education. Compared to 2008, the funds allocated to education in 2018 have increased more than twice), it is obvious how far the country's universities are behind the world's leading educational institutions.

Hence, it appears that competitive advantage of higher education institutions is attained not only by the level of expenditure invested in education, but also by other means of competitiveness. Accreditation of higher education institutions is among them.

Results, Conclusions and Recommendations

Prospects to enhance the competitiveness of Azerbaijani universities worldwide

Since 2003, Azerbaijan has joined the Bologna education system and has stepped forward the global market of education services. Thus, it began to involve university entrants not only from the CIS, but also from other foreign countries. With the aim of achieving competitiveness in the global educational institutions, it is necessary for Azerbaijani higher education institutions to ensure extensive mobilization of all participants (presidents of higher education institutions, government representatives, etc.) interested in reforming the higher vocational education system, enhancement of measures to improve the image of national universities and the quality of education services, and active involvement of evaluation criteria of higher schools in world rankings

In this regard, the President of the country has adopted the "State Program on increasing the international competitiveness of the higher education system in the Republic of Azerbaijan for 2019-2023". The key target of the program is to train new generation of specialists in the country through the use of cutting-edge scientific achievements, innovative teaching technologies, to upgrade the content and quality indicators of Azerbaijan's higher education system in line with international double degree programme, and to strengthen the academic potentials of the country's higher education institutions.

The role of accreditation in enhancing the quality of education in higher education institutions

The role of accreditation procedures carried out by both national accreditation organizations and international accreditation agencies is increasing in the process of enhancing the quality of Azerbaijani universities' education services and adapting to international requirements. The accreditation aims at checking the compliance of students and graduates study level with the requirements of international standards, as well as compliance with the teaching environment, staff, information and logistical support.

At present, accreditation at international level arising out of a necessity of integration of Azerbaijani higher education institutions into the global educational space is regarded to be one of the actual challenges. The international accreditation procedures contribute to identifying a number of key challenges that require flexible solutions: simplifying the procedure for recognizing university diplomas; expanding teaching and student mobility; assessing the quality of education at local universities in line with international educational standards and so on.

Below are major international organizations that carry out accreditation procedures in modern times:

- ENQA- The European Association for Quality Assurance in Higher Education
- ECA - European Consortium for Accreditation
- NUFFIC- the Netherlands Organization for International Cooperation in Higher Education
- QAA- Quality Assurance Agency
- EFMD - European Foundation for Management Development
- INQAAHE- The International Network for Quality Assurance Agencies in Higher Education
- ECBE- European Council for Business Education etc.

ISO-9000 certification is carried out by "LLOYD'S" (UK), "TUV CERT" (Germany) and many other organizations.

Acquiring an international accreditation certificate provides universities with many advantages:

- obtaining the right to independently evaluate the quality of study programme and specialist training;
- approving the quality of education delivered;
- improving study programs;
- increasing competitiveness in the national education market;
- access to the world educational market;
- cooperation with foreign universities;
- obtaining proposals in the field of demand for graduates in the labor market, etc.

- An accreditation certificate issued by an external organization will assist improving the image of the university both in the national educational market and on the international market, thereby increasing its competitive ability in the global education space.

Conclusion

It is evident that modern globalization processes are closely linked to the globalization of education and scientific activity, the occurrence of radical innovations (technological, informative) in education and science, the dissemination and expansion of scope of fundamental and applied researches. On the other hand, groundbreaking researches in the fields of science are also carried out by a limited number of world-class universities, and their high competitiveness status also specifies the competitive ability of the national higher education system in the international arena and, in general, the competitive capacity of the national economy.

I think, from this viewpoint, that elaborating and implementing an effective development strategy of higher education based upon mechanisms that promote integration into global knowledge system of different countries universities, delivering high-quality education services, producing unique research products, training highly qualified specialists must be the main priorities of modern state policy. However, it is worthy of note that in the current period, a lack of resource support and financial capacity for higher education institutions to compete globally generates a need for the active involvement of the state enterprises and the country's institutions with great financial resources. It is supposed that the promising prospects proposed for higher education by the 21st century can only be reached if all players of the HE system, from students to the government, support the radical transformation initiative to tackle the challenges they are facing.

References

- State Program on Increasing the International Competitiveness of the Higher Education System in the Republic of Azerbaijan for 2019-2023 <https://president.az/>
- Michael Barber, Katelyn Donnelly, Saad Rizvi. An avalanche is coming. Higher education and the revolution ahead. L.: The Institute for Public Policy Research. March 2013
- Marginson S. (2006) Dynamics of National and Global Competition in Higher Education. *Higher Education*, vol. 52, no 1, pp. 1–39.
- Macionis J., Gerber L. (2008) *Sociology*. Toronto: Pearson
- Marginson S. (2012). Emerging Countries Need World-Class Universities// University World News. Issue 214
- Salmi J. (2009) The Challenge of Establishing World-Class Universities. [Создание университетов мирового класса]. Moscow: Ves mir.
- Göran Finnveden, Julie Newman & Leendert A. Verhoef "Sustainable Development and Higher Education: Acting with a Purpose" *Sustainability* 2019, 11(14), 3831; <https://doi.org/10.3390/su11143831>
- Katelyn Donnelly & Saad Rizvi & Michael Barber, 2013. "An Avalanche Is Coming, Higher Education and the Revolution Ahead," *Educational Studies, Higher School of Economics*, issue 3, pages 152-229.
- Titrek, O., Zafer Güneş, D. Sezen, G. (2013). "Yükseköğretim ve Yaşam Boyu Öğrenme: Bir Model Önerisi" (Higher education and lifelong learning (llp): A model proposal). ICQH Proceeding Book 2013, s 1117-1130, 12-14 Aralık 2013, Sakarya Üniversitesi Kongre ve Kültür Merkezi.
- Комарова Т.В. Конкурентоспособность российских вузов в мировом образовательном пространстве: основные тенденции и перспективы // Креативная экономика. – 2016. – Том 10. – № 4. – С. 423–432.
- В. И. Сацик Детерминанты глобальной конкурентоспособности университетов: в поиске эффективной стратегии развития высшего образования на Украине // журнал, Вопросы образования. 2014. № 1 ср.134-16
- Салми Дж., Фрумин И. (2013) Как государства добиваются международной конкурентоспособности университетов: уроки для России. Вопросы образования, № 1, с. 25–68.
- Мельничук М.В. Современные проблемы контроля качества высшего образования- Экономика и право.- 2016. -№ 7п.40-43
<https://www.topuniversities.com/subject-rankings/2019>
<http://www.universityworldnews.com/article>.
<https://creativeconomy.ru/lib/35120>



Ambassador of Sustainability in Education & Leadership: A case of Public Libraries in Multicultural Society

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Abstract

Sustainability is a fast evolving movement in education and leadership, viewed as vital to the mission of public libraries as well, creating a paradigm shift that librarians can help advance with their collective interdisciplinary expertise. Cultural diversity has a sustainable increase in recent days. User-friendly Libraries is the major source of that contributes to improving the knowledge of both faculties and students through active search. Public libraries promote cultural diversity and intercultural dialogue.

The purpose of the study was to investigate the practices regarding sustainable development among public libraries of multicultural society. Lahore is a multicultural city, where people come all around the country as well as world. To highlight the core elements required for the implementation of public library services for sustainable development of education and leadership with special reference to multicultural society was another objective of the present study.

This study is exploratory in nature. Keeping in view the objectives of the study, research design chosen for this study is largely qualitative. To explore the current scenario of sustainability through public libraries in multicultural city of Lahore, local and international literature review & public library staff's Interviews from the city of Lahore with the help of observation technique used as data gathering method.

Results reveal that public libraries can play dynamic roles for sustainability of education and leadership. The government should play their role and contribute towards the public library standards to re-assess and enhanced quality of these libraries in Pakistan. Public libraries in a culturally diverse society work as mediators between society, culture and users. Pakistani community is a mixture of different languages and cultures which have different dimensions' and local cultural roots. There is a dire need for library cooperation among educational institutes and public libraries for sustainable society.

Keywords: *Sustainability education, Sustainability Public Library, Sustainability Cultural Diversity, Education and Leadership, Pakistan*

Introduction

The perception about the role of Public libraries in Pakistani society is rapidly changing and quite different as compared with the past glory. The services and position of these libraries taken for granted in Pakistani society these days. There is misconception and ambiguity regarding the value of sustainability of education and leadership in public libraries of Pakistani society. Due to the globalization and advancement of technology many questions raised on their existence in society, as these libraries still focus on physical services. There is a raising demand to do more for the positive contribution towards sustainability of educational and leadership of society from these libraries. Public libraries are answerable for the amount spent on them. In developing countries like Pakistan with low economy, this validation of sustainability is more crucial. In this changing environment, there is emergent need for public libraries in Lahore to show their worth, both in economical as well as sociological sense.

Chandio (2012) believes that the culture of Pakistani society is a mixture of an assortment of diverse ethnic communities. This culturally diverse community based on Punjab, Baluchistan, Sindh, KPK areas which have their



own history of cultural groups. Lahore being one of the largest and well populated cities has special attractions in term of cultural as well as archaeological heritage. In this context, there is a need to conduct a pragmatic study to determine the current scenario of sustainability role of public libraries of this culturally diverse community to determine whether they are planning their role for educational and leadership sustainability of Pakistan's culturally diverse communities or not.

The objective of this present research study is to draw the actual picture of public libraries vital role for educational and leadership sustainability in Lahore with reference to the services provided by these libraries to fulfill the multidimensional information and recreational needs of the society.

Research Objectives

The purpose of the study was to investigate the practices regarding sustainable development among public libraries of multicultural society. Lahore is a multicultural city, where people come all around the country as well as world. To highlight the core elements required for the implementation of public library services for sustainable development of education and leadership with special reference to multicultural society was another objective of the present study. The article also examines the meaning of sustainability in the library and information field, and the presumption of this reality with reference to the public library services in Pakistan. Finally, practical recommendations based on already implemented best practice are made, these may assist public libraries in Pakistan to move towards a more equitable and representative approach in the collections and services they offer their sustainable diverse constituencies.

Review of Relevant Literature

Sustainability role of public libraries is not a new phenomenon, but may be a bit overlooked among multicultural society. Sustainability and educational leadership roots back almost a century, between 1920s & 1930s. At that initial stage it was only related to education and training opportunities for adults. (Vargas, 2014) What is actually mean by Sustainability and Educational Leadership, A very comprehensive definition is provided by the European Commission (2001) is "all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective." Information world is became complex day by day, and it became very difficult to manage and fill the information gap created by the information flood. According to Fischer (2000) "Sustainability is an essential challenge for inventing the future of our societies; it is a necessity rather than a possibility or a luxury to be considered".

What does Sustainability mean. According to Charney (2014) It is a fast evolving movement in higher education demonstrated by a proliferation of academic programs, co-curricular initiatives, and campus projects. Sustainability is now viewed as vital to the mission of many institutions of higher education, creating a paradigm shift that librarians can help advance with their collective interdisciplinary expertise. Poole writing about public libraries over a hundred years ago declared that to meet the assorted needs of the library users there is a dire need to improve library collections according to the information needs of the future users.

UNESCO's (1994) Manifesto for Public libraries provides a comprehensive definition for public libraries; this manifesto believes that public library system is a spiritual force for every field of life. Public libraries system work as mediator between the fostering of harmony and progress all the way through the minds of male and female members



of the society. Public libraries are mediators between all kind of information and its users. These libraries provided information needs of its users of all kind regardless of any individual identities.

Oboler believes that the foundational task of the public libraries is to provide required information through all the possible ways and fulfill the required information needs with least resources in term of time and money. (as cited in Managing Public Libraries in the 21st Century, p. 132)

Nash (2019) mentioned that there is a need to enhance the educational initiatives for the development of students. He further explores that that these skills play vital role in students learning outcomes. Peters (2019); Sun, Caravias, Maynard, Weisskirch (2018) & Kind (2015) believed that the digital revolution have a deep impact on education at all levels. These learning devices create opportunities for students to get motivated and joy of learning.

The core aim of the libraries was preservation in ancient times with the common approach that the large collection is the best one and in ancient public libraries was not circulated outside the library building as general rule. The librarians were not concerned about the use of library material but these phenomena changed in 19th century and libraries realized that the collection is for users. (Ameen, 2005)

Public libraries initiated to introduce new services trends to its users in twentieth century; accordingly these libraries start focusing user oriented collection. Public libraries has experienced sensational changes in twenty first century because of dramatically change in technology which make it very hard for public libraries to fulfill all the information needs of its multidimensional users e with limited financial resources.

The concept of a modern public library originated in Europe in the mid nineteenth

Century and was spread to other parts of the world later. Great Britain is considered to be the pioneer in the modern library legislation and public library development.

Chelliah (2014) believes that public library should try to reach out its multi cultural users of society. He suggests that public libraries should adopt the marketing techniques for this purpose.

Ying (n.d) suggests some marketing techniques for these libraries; he said that they can capture new users by offering unique library services or facilities i.e maximize the library timings, celebrations of local holidays etc.

Cloete, Jacobs, & Rodrigues (2007) believe that the present skills of library professionals of public libraries required more training and skills to attract new users of multicultural community. Montiel-Overall, pointed out in 2009 that library professionals need to enhance more skills for the successful launch of community programs. He believes in the shortcomings of professional skills in current library staff of public libraries.

Varheim in 2014 explore during a study that people all over the world believes in the authenticity of information provided by the public libraries. In this regards, Norway stood first where people trust these public libraries more than any other source of information. Sweden comes after Norway because Swedish society trust on health services more than public libraries.

Situation regarding public libraries is quiet different in Pakistani society. Most of the People are not aware of the value of public libraries for society. To get optimum benefits from the public libraries of Lahore there is an urgent need for the image building of these public libraries (Bashir, 2018).



Research Methodology

This study is exploratory in nature. Keeping in view the objectives of the study, research design chosen for this study is largely qualitative. Patton (2002) believes that qualitative research has different objectives and approaches from quantitative research. Its aims, research methods, data collection and presentations techniques for results is also quite different from other type of research. It presents ideas through textual data rather than numerical figures.

To explore the current scenario of sustainability through public libraries in multicultural city of Lahore, local and international literature review & public library staff's Interviews from the city of Lahore with the help of observation technique used as data gathering method.

Sustainability and Public Libraries

Due to the transformation of technology and flood of information the present world converted into global world. This is a new bringing of the role of public libraries for sustainability among cultural diverse society. Today the public libraries play a vital role for sustainable society; economically as well as education and leadership. LaTronica (2014) believes that if people have access to public library freely they has no need for traveling to discover new fairy lands because of the multidimensional collection of these public libraries. The only thing they need is willingness to learn.

Sustainability concerns of Public library in multicultural environment

According to Michnik (2015) whenever we discuss sustainability and public libraries, the focus is generally on the library's contribution to a sustainable society. UNESCO (2001) believes that regard for the decent variety of societies; resilience, discourse and collaboration, in an atmosphere of common trust and comprehension are among the best certifications of universal peace and security.

The public libraries in the society must be organized on the basis of their needs. The sustainability role of a public library in a multicultural society has been discussed in a number of documents by major bodies.

According to IFLA/UNESCO Multicultural Library Manifesto (2012) Public libraries in multicultural society should manage community need base collections including digital resources & e collections. The Manifesto believes that these libraries should play their role in the preservation of intellectual inheritance. The libraries serving in multicultural societies should introduce new programs for community and adopt latest marketing techniques to reach out the community.

Ryynanen (2003) "Classify the types of multicultural expertise in four different ways: information skills, awareness skills, cultural skills and social skills."

Public libraries in Pakistan

Public libraries have broad roots in the historical backdrop of Sub-Continent. At the time of Independence in 1947 due to the huge migration of people of indo-Pak especially in Punjab public libraries suffered a lot and most significant resources lost due to this migration. (Anwar, 1996)

There were 12 public libraries in Pakistan before 1950. Punjab Public Library, Lahore is one of the oldest libraries in Pakistan, established around 63 years before partition. It was founded by the then Governor of Punjab Lord Charles



Umpherston Aitchison in 1884 by donating the collection of 75 books from his personal library. Dyal Singh Public Library was established at Lahore in 1896 by S. Dyal Singh Majithia (Kumar, 2013)

Public libraries are called “Universities of the people” in advanced, civilized and developed societies. The current situation of public libraries in Pakistan, even in big cities like Lahore and Karachi is very disappointing and frustrating somehow.

Lahore is a multi-ethnic city consisting of multi cultural, multi linguistic, religious and social groups of people. People of Lahore are open minded, socially advanced, educated, religiously virtuous. They need media which can enrich their knowledge in multicultural scenario. The city has some public libraries in different locations of Lahore. Punjab Public library, one of the oldest libraries of Pakistan is located in Lahore, established in 1884. Dyal Singh Trust Library, in pursuance of the will of late Sardar Dyal Singh Majithia established in 1908 is another oldest library of Lahore. There are some public libraries established after the birth of Pakistan in Lahore; Quide-e-Azam library established in 1984, Model Town Public library established in 1986, Defence Public library was inaugurated in 2000, Barkat Hussain Public Library 2012, Chughtai Public library 2013, LCB (Lahore Cantonment Board) Public Library inaugurated in 2014 are some of renowned public libraries of Lahore. However, it is very heartbreaking to state that these libraries are not up to any standard to meet the educational, social, cultural and recreational needs of the people of Lahore. Most of these libraries are in miserable condition filled with old and outdated material. Mostly people go to these libraries for reading newspapers or fiction/novels. (Bashir, 2015)

Public library in a multicultural society

IFLA (2006) believes that cultural variety or cross-culturalism is the backbone of our local as well as our worldwide communities.

Metropolitan Group (2008) provides eight principals for public libraries to improve and build multicultural communication in which they suggest that these libraries must understand their strength and community needs. The group emphasizes the involvement of new marketing strategies to reach out the community and development of communication skills of public libraries staff.

Euler (2009) suggested that public libraries and education sector can build strong relations to provide better services in a multidimensional society. They can involve other nonprofit organizations of their respective communities. He highlight that most of multicultural people never visited their local libraries in their whole life. So, these libraries need to do something very special to attract and capture these kinds of users. Obviously for this purpose these public libraries and their staff must have skills and full understanding of their community and the need of the community.

APLA, in 2016 suggested that to fulfill the information needs in multicultural society the staff of these libraries should have some special skills and up-to-date knowledge with full command on technology as well basic knowledge of local languages of the multicultural people.

DISCUSSION AND FINDINGS

Sustainability can be defined as “meeting current needs without compromising the opportunities of future generations.” (Marcum, 2008). When we discuss sustainability and public libraries its not about securing stable funding but its means that these libraries should play their role for the sustainability of multicultural society economically and also in the field of education & leadership. Its quiet different approach from what these libraries



have always done. A society where people from different cultural groups live together is known as multicultural society. Pakistan is a multicultural society, consists of a diversity of linguistic, religious and cultural communities. Foreign language collections in Pakistani libraries are limited to English language and sometimes Hindi, Gurumukhi, German and French. The recent trends to include Chinese language. It was noted during study that Public libraries of Lahore facing shortage of staff with multi-language abilities to hold such book collection and cataloging of various foreign/local languages material.

The IFLA guidelines (1998) recommend that public libraries must hold and manage the balanced collection for their local community in their local language relating to their own cultures.

Lahore is a city situated in the northwest of Pakistan. It is the capital city of the province of Punjab and is the main center for Culture in both the Punjab region and Pakistan as a whole. Lahore the 2nd populated city of Pakistan & 42nd most heavily populated city in the world with population of 11,126,285. These approximate figures are the cluster of urban population of Lahore, which also includes the adjacent suburban areas. Lahore is a city rich in history and tradition; 87% of them speak Punjabi; other languages spoken include Urdu and English. 94% of the population in Lahore is based on Muslim; the remaining 6% are nearly all Christians, with small number of minority religions such as Sikh and Hindu. With less than 40% of the population of the city are literate. (World Population Review, 2018)

Result of study reveals that in public libraries of Lahore the purchase ratio of Urdu language books was high in comparison with English and other languages. Approximately 60% of purchase titles were in Urdu language followed by the English language. The ratio of other languages (Arabic, Persian, Sanskrit, Punjabi, Hindi etc.) was less than 1%. In these libraries preference given to the subject of literature and most books were acquired in this specific subject area. Urdu literature given more preference as approximately 75% books were related to Urdu literature. Bashir (2015) conducted a study to explore the major trends of purchase in public libraries of Lahore. She highlights that in public libraries of Lahore major neglected areas of purchase are art & architecture and languages. She further indicates that most of public library users of Lahore were dissatisfied regarding the maintenance of equal collection of books.

It is also evident from the analysis of the data that circulation of book stock for languages other than Urdu are very low. Books being issued are largely in Urdu language followed by English. The issue ratio of books from languages other than Urdu & English is very low.

The results also show that librarians of these public libraries do not consider alternative sources of information, especially in those languages where there is a lack of published materials. Even in the age of Information and communication technology (ICT) most libraries are using old methods because they do not have proper training for use of these technologies for cultural diversity of multicultural services.

Finding reveals that the staff of these public libraries believes that to provide these kind of services they need enhanced budget.

The results of the study shows the training required for the staff of these libraries and awareness in cultural diversity issues for public libraries in Lahore. The result also shows that public libraries of Lahore do not be familiar with the varied nature of their communities served by them.



Conclusion

What kind of role expected from public libraries for sustainability of education and leadership of multicultural society. It means that they should manage resources for the library community to support sustainability through curriculum development, collections, exhibits, events, advocacy, communication, and library buildings and space design. Iroka & Ndulaka conducted a study in 2018 to explore the educational sustainability role of libraries in Nigeria. The results of their study show that Inadequate; Infrastructure, Human Resources, Funding, General low Perception of Library, Management Issues were major challenges for libraries while playing their role of educational sustainability. The veracity of a multicultural society in Lahore is a somewhat new experience which framed during the previous couple of decades. People come all around the country with different cultural values. Many of them have been living in Lahore for quite a few years. Out of them some people are aware of public libraries services; but most of them are unaware or reluctant due to certain reasons. Almost half of the population of Lahore never steps in to the public library of their city in their whole life. There are many reasons behind this phenomenon situation, but the major reason behind is that most of the people are unaware of public libraries services, it is the major tasks of public libraries to reach out the underserved prospective users. Once public libraries resolve this issue, more users will come to use the free services of public libraries.

The world turned in to global village due to the evolution of technology i.e advancement in transportation and media transmission in the twentieth century. Without a doubt we are altogether residents of the world that comprises of every human race. We should figure out how to live gently with each other and to regard and esteem different societies as our own.

In this regard, the role of public libraries can be very vital. They can play a critical part in advocating multiplicity responsiveness, as they are responsible to provide resources to the public. They provide help and guide general public to accomplish the objective of social and monetary fairness and equity that at last will prompt a peaceful & flourishing society.

To get the maximum benefits from the cultural awareness programs devoted efforts, sufficient funds, adequate training and total commitment are required from the top management to low management of public libraries of Lahore.

Public libraries can play essential role to overcome the cultural gap in Pakistani society. Being professional all of us should participate in such activities and enhance these efforts to ensure that we are sensational members of our varied society. We hope that Public library users and professional organizations as well as Government bodies will join their hands to close the cultural gap and take advantage of free multicultural resources and the expert guidance of librarians.

Recommendations

On the basis of the current study the following recommendations were made to improve the role of public libraries for sustainability of multicultural society.

- The government should play their role and contribute towards the public library standards to re-assess and enhanced quality of these libraries in Pakistan.
- There is a dire need for library cooperation among educational institutes and public libraries for sustainable society.



- Due to the rapidly increasing multicultural society it is very difficult for public libraries to satisfy all the multicultural users especially as they have extensive variety of branch of knowledge with restricted budget. So there is a need for introducing the concept of rotating collection in public libraries of Lahore. These multi lingual books will rotate after four to six month from one library to another.
- There is a need to provide a multi-lingual on-line catalog in public libraries of Lahore. Punjab public library holds the biggest multi-lingual collection among all the libraries of Lahore so it can take the responsibility to manage this on-line multi-lingual catalog.
- Public Libraries should tried endeavors to hire staff with multi-language abilities to deal with these multi-lingual materials and provide better services to its users.
- Public libraries should make a combined effort for the recruitment of staff with multilingual abilities. Punjab Government played a main part by offering grant to empower brilliant young fellows and ladies of social minorities to go to universities and colleges in Punjab through allocated quota. Here is need to encourage these students to join the library profession.
- Public libraries of Lahore should launch the Diversity Awareness Program for its staff and provide training through diversity workshops. With the help of Cultural diversity workshops library staff learns the most effective method to help users with dialect issue; it makes staff more delicate towards users from multi-cultural environment and gives course of action to understand these users' extraordinary requirements.
- Public libraries should display their new added collection for multicultural user's interest and arrange special exhibition on holidays to highlight these collections. Monthly publication of these newly acquired titles can be an attracting idea.
- Celebrations of cultural holidays/festivals/ Exhibition make can be a brilliant idea for public libraries, attractive cultural art works, handicrafts of different cultures, artifacts, local books to place at the display with the help of cultural programs for the general public.
- Public libraries should offer bi-lingual story times to attract multicultural users which can be quite popular among new immigrants.
- Public libraries should arrange book discussions, lectures and group talks on cultural topics to share ideas and exchange precious knowledge. Books by minority authors or on different culture can be trendy amongst different age groups.
- Public libraries should adopt new marketing techniques for the better awareness of users about library multi cultural collection and services.
- Public libraries of Lahore should improve their role for the literacy and lifelong development of community.

References

- Ahmad, A. Z (2015). Cultural decline in Lahore. Retrieved from <https://www.pakistantoday.com.pk/2015/02/21/cultural-decline-in-lahore/> on 14th March 2018
- Australian Public Library Alliance. Guidelines, Standards and outcome Measures for Australian Public Libraries. ALIA, July 2016 Retrieved from <https://www.alia.org.au/node/184/public-libraries> on 20th March 2018
- Bashir, F., Hanif Soroya, S., & Khanum, A. (2018). Users' Satisfaction as a Valid Measure for Information Resources: A Case of Public Libraries. *Journal of Library Administration* 58 (3), 302-312
- Bashir, F., Hanif Soroya, S., Soroya, M. S., & Khanum, A. (2015). Emerging trends
- Chandio, Aslam (2012). Pakistan — a land of cultural diversity. Retrieved from <http://blogs.epakistan.com/pakistan-a-land-of-cultural-diversity/> on 14th March 2018.



- Charney, M. K. (2014). Academic Librarians and the Sustainability Curriculum: Building Alliances to Support a Paradigm Shift, *Collaborative Librarianship*, 6(1),
- Chelliah, R. (2013). Diversity and equity: community building strategies in public libraries for multicultural communities. Poster session presented at the IFLA World Library and Information Congress, 79th IFLA General Conference and Assembly, 17-23 August 2013, Singapore.
- Chelliah, Rajeswari. (2014). Community building, multiculturalism and the suburban public library. Retrieved from <http://ro.ecu.edu.au/theses/1524> on 20th March 2018
- Cloete, L., Jacobs, L., & Rodrigues, A. (2006). Providing equitable public library services to South Africa's multicultural communities. *Mousaion*, 24(2), 211-231.
- Collections, Acquisitions, and Technical Services, 39(1-2), 40-44.
- Euler, J. & Wilke, S. (2009). Diversity Management as a Key Challenge to the Library in the Multicultural Society. BOBCATSSS.
- European Commission (2001). Making a European area of lifelong learning a reality, Communication (European Commission), European Commission, Brussels, viewed 03 Mar 2019, <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0678:FIN:EN:PDF>
- European Commission (EC). (2001). Making a European area of lifelong learning a reality. Brussels: European Commission.
- Fischer, G. (2000). Lifelong learning: More than training. *Journal of Interactive Learning Research*, 11, 265-294.
- Gollop, C. J. (1999). Library and Information Science Education: Preparing Librarians for a Multicultural Society. *College & Research Libraries*. 384-395
- International Federation of Library Associations (IFLA)/UNESCO. (2012, March). IFLA/UNESCO Multicultural Library Manifesto. Retrieved from <http://www.ifla.org/node/8975> on 20th March 2018
- Iroka, P. L. and Ndulaka, C. M. (2018). Education and Libraries for Sustainable Development in Nigeria. *Archives of Current Research International*, 12(4), 1-10.
- Khan, Amna (2012). Multiculturalism in Pakistan. Retrieved from
- LaTronica, S. (2014). Libraries Working To Bridge The Cultural Divide. Retrieved from https://www.huffingtonpost.com/starr-latronica/libraries-cultural-divide_b_5241903.html on 11th March, 2018.
- Marcum, J. W. (2008). Partnering for Innovation and Sustainability, *The Bottom Line: Managing Library Finances*, 21, (3), 82.
- Maynard, G., Simpson, M., & Hill, R. (2018). Navigating the path to digital literacy and telehealth with final year pharmacy students, *LifeLong Learning in Pharmacy*.
- Michnik, K. (2015), "Public libraries digital services and sustainability issues", *The Bottom Line*, Vol. 28 No. 1/2, pp. 34-43. <https://doi.org/10.1108/BL-12-2014-0034>
- Montiel-Overall, P. (2009). Cultural competence to create multicultural libraries. *The Library Quarterly*, (79)2, 175-204.
- Nash R., Chalmers L., Stupans I., Brown N. (2019) Developing Lifelong Learning Skills: Using a Traffic Light Report to Promote Competency Standards and Self-Assessment Among Pharmacy Undergraduates. In: Trimmer K., Newman T., Padró F. (eds) *Ensuring Quality in Professional Education Volume I*. Palgrave Macmillan, Cham
- Patton, M. Q. & Cochran, M. (2002). A Guide to Using Qualitative Research Methodology. Retrieved 11 March 2019 from https://evaluation.msf.org/sites/evaluation/files/a_guide_to_using_qualitative_research_methodology.pdf



- Peters, M., & Romero, M. (2019). Lifelong learning ecologies in online higher education: Students' engagement in the continuum between formal and informal learning. *British Journal of Educational Technology*.
- Picco, P. M. A. (2008). Multicultural Libraries' services and social integration: The case of public libraries in Montreal Canada, *Public Library Quarterly*, 27:1, 41-56, DOI:10.1080/01616840802122443
- Population Census. (2017). <http://www.pbs.gov.pk/content/population-census>. Retrieved 20 February 2019
- RODRIGUES, A. (2006). Serving Culturally Diverse Communities
- Sun, L. P., Siklander, P., & Ruokamo, H. (2018, June). How to trigger students' interest in digital learning environments: A systematic literature review. In Seminar. net (Vol. 14, No. 1, pp. 62-84).
- UNESCO Universal Declaration on Cultural Diversity, 2001. Retrieved from http://portal.unesco.org/en/ev.php-URL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html on March 20, 2019.
- UNESCO Universal Declaration on Cultural Diversity. 2001. Retrieved from http://portal.unesco.org/en/ev.php-URL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html on 10th March 2019.
- Vargas , C. (2014). Lifelong Learning principles and higher education policies. *Tuning Journal for Higher Education*. University of Deusto. ISSN: 2340-8170. Volume 2, Issue No. 1, 91-105
- Varheim, A. (2014). Trust in Libraries and Trust in Most People: Social Capital Creation in the Public Library. *The Library Quarterly: Information, Community, Policy*. Vol. 84, No. 3 (July 2014), pp. 258-277 Published by: The University of Chicago Press DOI: 10.1086/676487
- Varheim, A., Steinmo, S., & Ide, E. (2008). Do libraries matter? Public libraries and the creation of social capital. *Journal of Documentation*, 64(6), 877-892. DOI: 10.1108/00220410810912433
- Weisskirch, R. S. (2018). Grit, self-esteem, learning strategies and attitudes and estimated and achieved course grades among college students. *Current Psychology*, 37(1), 21-27.
- Wigell-Ryynänen, B. (2003). The multicultural society as the norm.
- Ying, Harriet (n.d). The Role of Public Library in a Multicultural Society.



Vicious Circle of Reproduction of Stereotypical Thinking in Czech Schools

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Abstract

Contemporary society is living in an age of globalization, and with it also an age of plurality of ethical and political values. This study is based on a comparison of research studies concerning the media images of people who are viewed as “different” by means of a quantitative content analysis of the Czech media together with an examination of values and attitudes towards those viewed as “different” among high school students. The aim is to show the vicious circle of reproduction of stereotypical thinking without critical reflection in school and in the media, which confirms our subjective, stereotyped reality. In today’s globalized world this is perceived as a problem that multicultural education could deal with. However, in the Czech Republic, the multicultural approach in the educational process, due to its reduction to “Roma problem”, does not meet our expectations or is in fact failing, since to date this approach leads to a superficial acceptance of postmodern values, which includes for example toleration of differences among pupils (and often also among teachers).

Keywords: Educational process, Media Image, Multicultural Education, Social Constructivism

Introduction

Globalization brings new opportunities but also difficulties in understanding intercultural communication. The theory of multiculturalism is naturally linked to the cultural and political discourse of postmodernism. Contemporary society is living in an age of globalization, and with it also an age of plurality of ethical and political values. We must accept the reality of a world inhabited by people with different experience, creating various stories about the world, living their lives in different ways and holding different political views and religious beliefs. This said, from the position of postmodernism, means that we do not live in a single world, but we de facto inhabit a number of different worlds and we use varied, personal dictionaries to describe them.

Education leading to support for tolerant multicultural coexistence and general tolerance towards diversity, implying a development of cross-cultural and intercultural communication, should therefore be an implicit part of education in contemporary societies. We are aware that the school environment is not the only factor influencing the values and attitudes of the younger generation, but that the family (socio-economic) environment and the media also have a significant influence. However, schools are a reflection of the society to which they belong (Sleeter, Grant, 2009, 19), and as many research probes focused on the issue of the media construction of the reality reveal, the mass media interfere significantly in the transformation of our society.

We return, here, to the themes that we have developed previously (Preissová Krejčí, 2013; 2014) and through our experience in managing the ESF OP VK project “Anti-prejudice workshops” we focused on the practical application of the ideas of multiculturalism in the educational process. In 2010-2012 we carried out under this project a research which sought to uncover the value orientation of secondary school students, with a focus on the multicultural aspects of their education. In comparison with criticism of the media conditioning of social structures and the stereotypical and prejudiced view of members of minorities in our society, its results bring significant findings in relation to the media.

Multiculturalism, meaning the one we are striving for, is a pluralistic and tolerant ideology, intentionally completely opposite to all the grand narratives of the past: Christianity, fascism, communism, all the totalitarian systems that advocate a single truth, a single path and a single justice. The population growth cannot be stopped,



however, the fragmentation of ways of life, social class, belief and education can be overcome with another ideology, an idea to sanctify diversity and plurality as the new core values of humanity.

“We live in a global age, where barriers of race, ethnicity, distance, and civilization are continuously crumbling” (DomNwachukwu, 2010, 43). However, new barriers are being created, namely barriers arising from the economic situation of families living in the separate social classes. We believe that a multicultural approach to education should primarily emphasize that which strengthens the equality and justice within society. As a result, we sympathize with an illustrative conception of multicultural education, namely that all students regardless of which group they belong to (according to gender, ethnicity, race, culture, language, social class, religion or other differences) should experience equality in education. Such an education could eliminate the factor that some students have a greater chance of success than others on the basis of certain special (predominantly external) characteristics, and could consequently contribute to a disruption of the labels “successful” or “unsuccessful” on the basis of membership of a certain group.

In the age of a global human society, where races, ethnicities and nations disappear, man attains a new value of humanity – tolerance for the different. Multiculturalism is the political impact of the activities of humanities after the Holocaust. Cultural and social anthropology are among the disciplines that largely contributed to its definition. Anthropology is a science searching for the meaning of survival of the Euro-American civilisation through the dynamics of societies that were despised by this society generation after generation. We remain here after tens of millions of victims of the wars that took place during the last hundred years, after the Holocaust, after a number of famines that happened at the same time as other parts of the world witnessed economic conjuncture of unprecedented proportions (long-term increases in production, consumption and foreign trade). Truth changed into a random attribute, rendering things more or less valuable here and there. A value defined by the increase rate and index on stock markets, by inflation and GDP. It is a time of recession, chaos and confusion – not of economy, but of values. Interpersonal relations are handled with one finger on the trigger.

Particular attention is paid to the construction and detection of our own stereotypes and prejudices, which we could not live without, as they play an important role in the structures of our personalities, when it comes to values. This is also why we are engaged in the description of findings based on the quantitative anthropological and pedagogical research of value-orientations of students; and of other findings based on quantitative analyses of the presentation of the “different” in Czech news media. In the centre of our attention, however, remains the relationship that participants in the educational process have with tolerance towards difference and with intercultural communication.

During the nineties, we witnessed a liberalization of the post-socialistic societies, which resulted in the emergence of ethno-politics, or identity politics, in these regions. We may see the reasons for this in an increasing need for societal solidarity as a result of a rapid social stratification, or perhaps in a negative reaction to this stratification in the sense of a heightened sensitivity towards “the others”, especially manifested in the Czech Roma minority. The so-called “Roma issue” is multiculturalism’s most debated topic in the Czech environment. Problems associated with the Roma minority, be it their social and spatial exclusion; or the emergence of community schools, which many consider to be the best possible way of integrating the Roma into the majority, while others see it as the beginning of a segregated “ethnic” school system; or higher criminality, manifested especially among the inhabitants of Roma ghettos; or that many Roma families are considered to be living “at the expense of society”, as seen in their dependency on government support; or failed attempts of governmental and non-governmental organizations alike to change the given situation, are all undoubtedly grave problems. However, in the context of the issue of multicultural co-existence of citizens of Central European countries, especially Czech Republic, the problems of racial inequality should not overshadow other, often more important problems. Fixation on the so-called “Roma problem”, or its excessive accentuation, devaluates the



goals of multicultural politics as well as education towards the values of a pluralistic, modern, democratic society striving towards a transcultural dialog and multicultural coexistence.

Czech society is in no way based on an equal access to education, employability, social status, financial remuneration, etc., in the sense of equality across all ethnicities, genders, sexual orientations, social classes or health conditions. The so-called “racial” inequality, set to the forefront by the media, is merely a fleeting reflection of a larger and deep-rooted issue of social inequality, which is reflected in a multitude of social problems. Multiculturalism, however, deals with a much broader range of human diversity and its manifestations, which are then accepted or rejected by the majority of society. We point out that multicultural education should (for this reason) not consider the “Roma problem” to be its centrepiece. This sort of practical politics ultimately leads to linking negative social phenomena to the Roma as representatives of a group identity. By this process it helps to shape the social reality, in which it re-confirms their predominantly negative position. Applying the principals of individualization instead of ethnic or cultural identity could lead to the elimination of Roma stigmatization (and of members of other minorities) and thus provide opportunities to prevent their social exclusion. The goal of multicultural education is primarily to prioritize those values that lead to a socially just society and a socially just education.

The school (as an institution) reflects general patterns of social discrimination, which is why teachers should be able to unveil these tendencies and lead their students to reflect on their views of particular discriminated groups in light of new findings, personal experiences, empathy, tolerance and solidarity. Multicultural education should help reform the educational process while taking into account the fostering of not just cognitive, but also emotional abilities, leading to a perception of the school as a social system, where all its main variables are closely linked to the goal of providing equal conditions for achieving study results by a diverse body of students. The Czech society is ethnically, or rather culturally, nearly homogeneous and the percentage of foreigners and national minorities in the Czech population suggests, that the probability of meeting a different culture is minimal. Yet, we can see tendencies towards xenophobic ways of thinking and racist declarations in the Czech society. Why is this the case? To what extent are these trends fed by an image of foreigners or those who are visibly different, who are spoken of within contexts which are no surprise to a member of the majority, which is presented within the contours given by the media influence and their construction of reality?

A critical revision of the value orientation of youth, reflecting the values and beliefs of contemporary Czech society, could help us understand the sources upon which xenophobic thoughts and the racist manifestations of the majority are based. Values given priority to as convictions and ideas arise not only on the basis of on personal experience, but are no less often formed through education, therefore they are culturally determined (DomNwachukwu, 2010). In relation to other, foreign cultures we tend to view their representatives within the categories of “us” and “them”. As Jan Kosek notes, the coexistence of different cultures and religions has always been associated with the perception of otherness and the creation of stereotypes about us and the others (Kosek, 2011). Sameness and difference, basic attributes of the concept of identity, are social constructs (Hirt, 2005). A role in their creation is played by a generalization of basic human attributes, frequently visible differences referring to basic similarities between people, which are no less often determined by a shared culture. On the other hand, the people are different precisely thanks to this commonly shared culture (Eriksen, 2008).

Method

First, we focus on the way Czech media display “the different” (on examples of foreigners in general and Muslims and the Roma specifically), which, especially if the readers have no personal experience with a certain group, often function as an arbiter of reality (Jirák, Köpplová, 2009). We then compare the findings of these researches with the results of our own quantitative survey, carried out under the ESF OP VK project. The results



of the survey into values and attitudes of grammar school students confirmed a lower level of tolerance for members of the Roma minority, as compared to any other minority.

The fact that the media construct and reaffirm our reality was dealt with Berger and Luckmann in their now classic work *The Social Construction of Reality*. The media contribute to our orientation within the world; they validate our subjective and stereotyped reality. They provide a widely available yet stable guide for locating a framework of our world, since they define what constitute its parts and what already stands outside it, what is perceived as “normal” and what represents a foreign element, which it is necessary to wrestle with somehow. This element standing beyond the boundaries of our world then becomes represented by different cultural or ethnic groups, with regard to which we have the need to define ourselves.

The research investigations described here were realized by the method of quantitative content analysis, which enables efficient processing of large amounts of research material, in which this primarily concerns detecting the frequency of categories predetermined by the researcher. Secondly it also deals with the relationships between these categories (Hendl, 2005). It is clear that the use of a quantitative content analysis does not provide an explanation of the examined problems, but enables a systematic examination of a large amount of material, reducing it to relevant data (Klapko, 2013), which is most acceptable to us for detecting the media image.

Findings

Foreigners in Prague print media

The presentation of foreigners in the Prague print media was dealt with by Blanka Moravcová in her bachelor thesis. Her analysis covered 324 articles thematically focused on foreigners, which were published in 2013 in selected journals (Prague Daily: Section 1, Mladá fronta Dnes: Annex Praha and Metro – Praha). The research showed that in terms of their thematic breakdown, most of the articles were related to crime stories (68 %), followed by culture, sports (9 %) and tourism (8 %) news (Moravcová, 2014). Less space was devoted to topics such as multiculturalism or accidents (around 3 %), school and education, health and social issues, immigration policy, demography (1 %).

The high percentage of articles related to crime is also confirmed by the study conducted by Klvačová and Bitrich, which was realized from September 2001 to August 2002 and identified a 75% share of similarly focused articles about foreigners (specifically citizens of Vietnam, Romania and Ukraine). It is also important that foreigners are usually written about “within contexts that most readers intuitively expect. Vietnamese are primarily written about in connection with market stalls, Ukrainians are written about in connection with labourers or members of organized criminal groups, and Romanians are mostly represented as beggars, pickpockets or thieves” (Moravcová, 2014, 11). This manner of representation confirms stereotypical conceptions of certain nationalities in society. Moravcová also identified a link between nationalities and the thematic focus of the articles. “Whilst in some of them the criminal connection prevailed throughout the research, among others, it represented only a small, relatively insignificant part” (Moravcová, 2014, 50).

For example, in the case of the Bulgarian nationality the theme of crime was identified exclusively, and high representation of this theme can also be detected in the case of Vietnamese, Danish, Slovak or Ukrainian nationality. In contrast, among the Chinese, German and British nationalities different topics are emphasized. Tourism comes to the fore, and in the case of Great Britain also culture and sport. Tourism was also often associated with the Russian nationality. In this respect the information in question is not surprising, since the members of mentioned nationalities rank among frequent foreign visitors. The research results confirm the assumption that “foreigners are most likely to be portrayed somewhat one-sidedly, rather in a negative light and within the context of a very limited set of issues, most frequently associated with criminal activity” (Moravcová, 2014, 54). The overall assessment of foreigners is negative in more than half of the articles analyzed.



Although the nationality of the foreigner was not usually determined in the articles, it is possible to distinguish a different portrayal of foreigners in the media according to their citizenship, which corresponds to the general concept of “the others” in the Czech society.

The media image of Muslims in the Czech Republic

The research conducted by Monika Ahrhánová is focused on the presentation of followers of the Islamic religion in the Czech media. Its goal was to determine the context within which the monitored media provide information about Czech Muslims and which topics are associated with them.

Compared to Western European countries (Germany, France, United Kingdom), the percentage of Muslims in the Czech population is very low, even in terms of comparison with other minorities within the country. However, we can recognize in the media a tendency to categorize Islam as a threat, which is especially evident over the last year with regard to the existence of Islamic State, the terrorist attack on the editorial board of Charlie Hebdo, etc. “The social climate probably unconsciously begins to shape the prognosis, which has no real justification within the Czech context and arises rather on the basis of media publicized experiences abroad” (Ahrhánová, 2013, 34).

The method of content analysis was used to analyze 111 articles dealing with this topic published in 2012 in the newspapers MF Dnes, Právo, Deník, Lidové noviny, economic newspapers, on the news web servers Novinky.cz and Aktuálně.cz, as well as in the tabloid press Aha! and Blesk. The theme which appeared most frequently across the analyzed media was categorized as the “threat of Islam” (34 %), which covered articles dealing with the spread of Islam in Europe and its possible presence in the Czech Republic. Additionally, the articles focused more attention on general issues of Islam which were not perceived as a potential threat, but were associated with considerations of tolerance and democracy (20 %). Approximately 13 % of the articles were concerned with customs and traditions (Ahrhánová, 2013, 46–48). Ahrhánová identified negative connotations in almost half of the articles (46 %). Articles with a neutral tone (38 %) represented a less numerous group. Articles with a positive orientation were recorded in 16 % of cases.

We view the risk of the detected trends as residing primarily in the fact that the majority of the Czech population has no personal experience with Muslims. The members of the majority to a large extent form their views and attitudes towards Muslims on the basis of media messages which confirm their stereotypes about them through the presentation of conflicts. The aspect of media influence on the values and attitudes of the population is even more striking in relation to the Roma minority.

The image of the Roma minority in the Czech media

The creation of the media image of the Roma minority in the Czech Republic was dealt with in his bachelor thesis by Michael Barton (2012). His aim was to determine the context within which selected media (news web servers iDnes.cz and Aktuálně.cz) informed Czech society about the life situation of the Roma minority in the Czech Republic and abroad over a given period of time (the whole year of 2011). The analysis was based on a total of 208 articles, within which 328 negative events were identified (such as generalization, crime, inflexibility, poor socio-economic situation, low education and racism). The Roma minority is frequently associated in the press with high crime (in 90 cases). “The articles often mentioned use of alcohol in public places, various episodes of shouting and loud manifestations (during night hours), etc.” (Bartoň, 2012, 39).

It was found that in the most cases, the articles focused on the Roma minority were of an evaluative character (Aktuálně.cz 71 %, iDnes.cz up to 80 %). Positive-sounding articles were more often identified on iDnes.cz (8 %). In contrast with this, articles on Aktuálně.cz had a positive tone in only 2 % of cases. It is evident that in



the analyzed media only a few messages without value judgments can be found, comprising less than 16 % of the reports relating to this topic (Bartoň, 2012). The fact that the Roma minority is mainly presented in association with negative phenomena confirms the stereotypical notion that the Roma minority (meaning all Roma people with only a few exceptions) is related to problems which threaten social order and harmony among the readers of the media. The negative perception of the Roma minority among the majority is also strengthened by negatively oriented statements aimed at the Roma by representatives of the state apparatus.

As was determined, although their comments in 86 % of cases were assessed as neutral, a significant amount (13 %) of negative statements also appeared in the articles. Likewise, if members of the Roma minority were given space, their statements regarding non-Roma were predominantly neutral (62 %), though positive comments (28 %) appeared more frequently. Negative connotations were identified in 10 % of cases. A disturbing finding is the fact, that in the media members of the majority are given far more space to comment on events (82 % of all citations). This disparity illustrates the fact that the role of the media largely contributes to the reproduction of stereotypes about the Roma minority, rather than to create objective reporting (Bartoň, 2012, 42-44).

Values and attitudes of high school students in relation to different ethnicity and culture

In 2011-2012 we conducted a survey of values and attitudes of students, focusing on how they perceive members of different cultures and ethnicity (Preissová Krejčí, Cichá, Gulová, 2012). Most of the surveyed students perceived Czech society as xenophobic or tending to xenophobic thoughts. However, they describe themselves as tolerant, liberal, with no inclination to xenophobia and racism, without fundamental differences according to the region and therefore not depending on the attended school or its environment. With regard to the presentation of foreigners in the media especially in connection with criminal activity, it is not surprising that the majority of respondents (43.8 %) were convinced that fear of foreigners is to some extent understandable, but there is a necessity to fight against it.

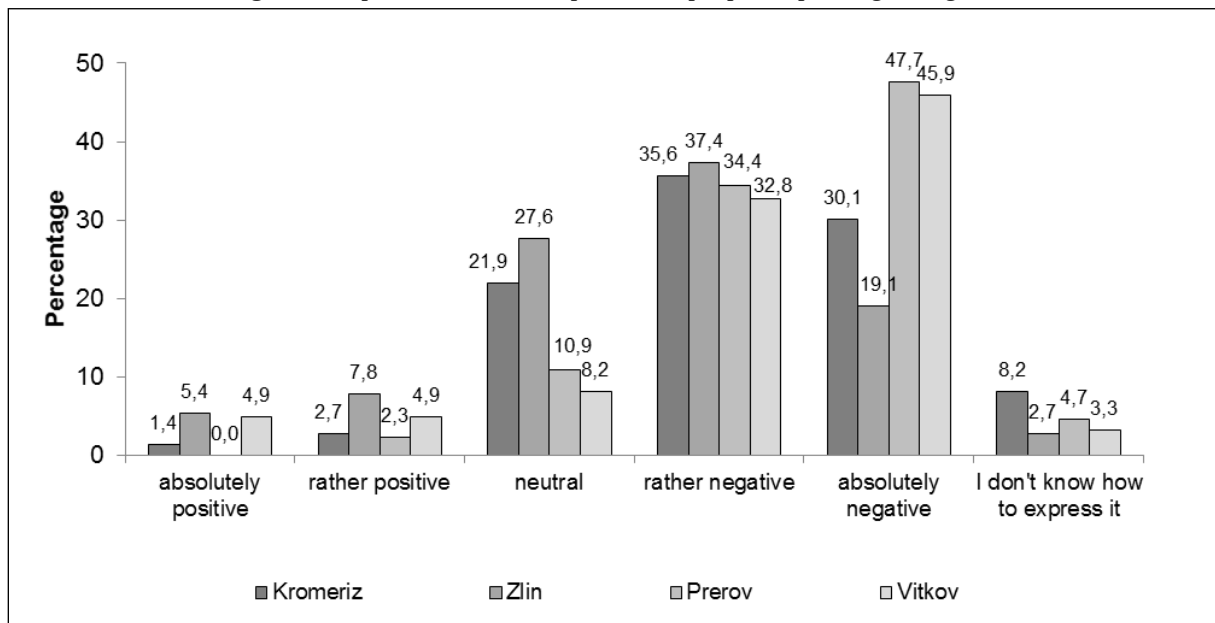
A considerable number (31.3 %) consider fear of foreigners to be legitimate, because they can pose a danger. Among the remaining answers the more visible trend (8.8 %) is the view that fear of foreigners is quite appropriate because foreigners threaten us (they live at our expense - take our people's jobs, draw on our budgets, etc.). The presented findings provide us with information regarding young people's attitudes towards foreigners in general. We were also interested in how the surveyed students would reflect their relationship to specific different groups of people (people of Asia, people from the former Soviet Union, people from the Balkans, Africans/African Americans, Arabs, Jews, Roma, Poles and Germans), created for the research, that any such group in itself implies a greater or lesser number of different cultures and ethnicities. Respondents from the proposed groups rated Africans/African-Americans most positively, with 66 % indicating a clearly positive or rather positive relationship with these groups. More than half of respondents had the same assessment also in the other groups (people from Asia at 56.3 %, 53.6 % Poles and Germans 52.1 %). In contrast, the most negatively perceived were Roma people, with 66.6 % reporting a clearly or rather negative attitude toward this group. There is a significantly less negative evaluation in relation to Arabs (20 %), people from Asia and the people of the former Soviet Union (9 %).

As we expected, the attitude of respondents towards the Roma is significantly different as opposed to other cultural and ethnic groups. It is obvious that negative sentiment about Roma people among high school students is very strong and is probably based on the perception of the Roma minority by the majority society in general, since most of the students, for example from the Zlín and Kromeriz district have personal experience with Roma population. Therefore, we can attribute the negative perception of the Roma minority to the negative media presentation, as shown in Barton's research on the media image of Roma people. Despite some differences between the districts with a higher proportion of Roma (Prerov/Vitkov) and with a minimal representation of



Roma (Kromeriz/Zlin), the graph shows that among adolescents, negative perceptions about the Roma ethnicity predominate across regions, age groups and the representation of the Roma population in the school neighbourhood.

Figure 1. A personal relationship to Roma people, depending on region



Besides the Roma minority we also investigated attitudes toward followers of Islam. In 40 % of cases, we recorded a neutral response. Only about 6 % of responses were of a positive nature. Responses of a negative tone were recorded in 20 % of students. The results indicated a high degree of negativity towards Muslims, which is probably related to the society-wide negative perception of Islam and its adherents. This sentiment is partly created and supported by the media, which to a large degree displays prejudices about Muslims, creating the impression that they are all terrorists and suicide bombers.

We consider it to be a substantial finding, that there is a noticeable difference between the real attitudes of the respondents, which in some cases manifest in xenophobic comments and similar opinions, and the way they present their attitudes as tolerant (or ambivalent) towards foreigners, different cultural and ethnic minorities and coexistence with them. This discrepancy is made even more apparent by their evaluation of the Czech society and of their relatives as xenophobic, racist and intolerant. We explain this as an attempt of grammar school students to distance themselves from racist and intolerant attitudes at least through generalization and by ascribing these tendencies to a different generation, as they are well aware of their problematic task in the Czech society.

Within the framework of the educational process, unfortunately, there is only a superficial acceptance of multicultural and tolerant values and attitudes, rather than any actual intersubjective sharing thereof.

Results, Conclusions and Recommendations

Even though multiculturalism, as a concept in the humanities, represents a sort of a stale topic, we have shown a space in the framework of multicultural approach in the Czech society that remains yet untaken. The exaggerated accentuation of ethnic differentiation devaluates the goals of multiculturalism and of multicultural education



based on a level, or rather just, approach across a multitude of types of differences, stemming from values such as plurality, solidarity, or generally humanity.

If the multicultural ideology of contemporary society has any place in the future, then it must become more critical, not only in relation to its reduction to the “Roma issue”, but also with regard to the reflection of the impact of media on attitudes and values of the students and their teachers, which are transmitted and shared in the educational process.

The above-described research illustrated the fact that the stereotypical perception of “different” from the mainstream society is the media's own, and the intersubjective shared knowledge of the society then gives rise to the adolescents' statements as recorded in the open questions of our questionnaire survey, in which they presented their prejudiced perception of minorities, whether this concerns the Roma minority (emphasize crime, welfare, immigration), Muslims (fanaticism, terrorism, religious issues) or Vietnamese (low-quality goods, stalls or drugs). The media creates a distorted/false image of the contemporary multicultural world, produced by diverse people, whose identity is a result of a sharing of the reality of everyday life with others and is formed during social processes.

Societies experience their own history, during which human identity is formed, but the history of these societies is made by people with a certain identity. As people open themselves up to the world as it takes place, they also shape their world and become genuine creators of their own world, constructing their own world in which their own meanings are reflected. Berger and Luckmann are convinced that this must be so, because one cannot be idle, closed in their interior.

One must always affirm one's own self in action. Man's openness to the world and for the world is his “anthropological necessity” (Preissová Krejčí, Cichá, Gulová, 2012, 56). Society in this conception is on the one hand the creation of man, and on the other hand represents an objective reality. On the basis of such a dialectical relationship between man, society and reality, man is also conversely the construct of the society (Preissová Krejčí, Cichá, Gulová, 2012). Berger and Luckmann's theory has influenced the long-term approach of the social sciences to reality. And thus the school in the true sense of the word reflects the views and attitudes of the whole society, which is not only shaped by reality, but itself creates and legitimizes reality, amongst other factors also through media representations.

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References

- Abbrámová, M. (2013). *Mediální obraz muslimů v České republice*. Bachelor Thesis. Olomouc: Univerzita Palackého v Olomouci, Filozofická fakulta.
- Bartoň, M. (2012). *Média a menšiny v České republice. Vytváření mediálního obrazu romské menšiny v České republice*. Bachelor Thesis. Olomouc: Univerzita Palackého v Olomouci, Filozofická fakulta.
- DomNwachukwu, C. S. (2010). *An Introduction to Mulicultural Education: From Theory to Practice*. Lanham: Rowman & Littlefield Publishers.
- Eriksen, T. H. (2008). *Sociální a kulturní antropologie: příbuzenství, národnostní příslušnost, rituál*. Praha: Portál.



- Hendl, J. (2005). *Kvalitativní výzkum. Základní metody a aplikace*. Praha: Portál.
- Hirt, T. (2005). Svět podle multikulturalismu. In Hirt, T., Jakoubek, M., et al. *Soudobé spory o multikulturalismus a politiku identit*. Plzeň: Nakladatelství Aleš Čeněk.
- Jiráček, J., Köpplová, B. (2009). *Masová media*. Praha: Portál.
- Klapko, D. (2013). Obsahová analýza textu. In Gulová, L., Šíp, R. (eds.). *Výzkumné metody v pedagogické praxi*. Praha: Grada.
- Kosek, J. (2011). *Právo (n)a předsudek. Historické, filozofické, sociálně psychologické, kulturní a právní souvislosti stereotypů a předsudků*. Praha: Dokořán.
- Moravcová, B. (2014). *Obrázek cizinců žijících či působících v Praze v pražských tištěných médiích*. Bachelor Thesis. Olomouc: Univerzita Palackého v Olomouci, Filozofická fakulta.
- Preissová Krejčí, A., Cichá, M., Gulová, L. (2012). *Jinakost, předsudky, multikulturalismus. Možnosti a limity multikulturní výchovy*. Olomouc: Univerzita Palackého.
- Preissová Krejčí, A. (2013). Multikulturní koncept ve vzdělávání a výchově v České republice. In Preissová Krejčí, A., Juárez Toledo, R., et al. *Sociální exkluze v multikulturních společnostech. Komparace současné situace v České republice a v Mexiku*. Olomouc: Univerzita Palackého, 2013, 11-45.
- Preissová Krejčí, A. (2014). *Multikulturalismus – ztracené paradigma?* Olomouc: Univerzita Palackého.
- Sleeter, C. E., Grant, C. A. (2009). *Making Choices for Multicultural Education. Five Approaches to Race, Class and Gender*. New York: John Wiley & Sons.



Perception of Health within the Context of Value Orientation among Czech Youth

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Abstract

The aim of our research was to clarify the relationship of Czech adolescents to the value of health and identify the main determinants of its formation and changes, specifically focused on the impact of family structure and educational environment. The research was carried out via the technique of a survey amongst students of selected secondary schools and high-schools in the regions of Zlín and Olomouc. The investigation was attended by a total of 855 respondents. Age rank of respondents was 15–20 years. The data was obtained by questionnaire included closed and semi-opened questions structured into three thematic areas. The research pointed out the great importance of health within the value orientation of Czech youth. The value of health was of most importance to circa 83 % of high-school attendees. The results show the considerable impact of social background, especially family's attitudes toward health to the individual perception of health and disease held by adolescents in the Czech Republic.

Keywords: Czech Republic, Health, Schools, Value Orientation

Introduction

Roughly by the mid-20th century our society has seen an increase of interest in issues regarding quality of life especially in relation to long-term patients and to the old. The success of treatment methods increases the amount of individuals in society for whom it is appropriate and necessary to address the issue of quality of life. Likewise, it is possible to maintain that quality of life is a universal phenomenon, related to humanity in the humanistic and philanthropic sense.

Quality of life of individuals, families and of the society as a whole is influenced by a number of factors. In our study we wish to expand on those factors that are related to the theme of “Family – Health – Disease”. The concept of quality of life, however, in addition to the dimension of health, possesses also a non-negligible societal and political dimension. Many politicians in the past have been building their political programs around the issue of quality of life, and many continue to do so today. For example Germany of the seventies of the last century witnessed Willi Brandt and the social democrats base their political program specifically on the achievement of a better quality of life (Hnilicová, 2005; comp. Prittie, 1974).

“Quality of Life” thus became a recognized term not only in medicine, but in politics, sociology and other disciplines as well. As part of this, the lives of people were assessed based on specific backgrounds, such as being from the city, the countryside, agriculture or industry. It also became clear that from this point of view quality of health or economical values are not wholly sufficient factors, requiring also a number of other social factors, in order to properly assess the quality of life, such as housing quality, the environment, the crime level in the society, access to education at its many levels and so on.

Today the concept of quality of life means in identification of many social factors that contribute to a valuable, good, meaningful and happy life. It is a study of all the different conditions of life that allow human beings to



live in the best way possible for them. The fact that quality of life is determined by many factors, led us to consider that some of them might affect not only the perceived quality of life, but they must also play a role in the individual state of health. Specifically the level and quality of housing simultaneously affect the evaluation of quality of life and the health situations of individuals or whole families and even communities as well. We wish to point out the fact that among the general factors determining quality of life health or illness there is a kind of reciprocal relationship. Quality of life is (among other things) conditioned by health, yet health itself is at the same time determined by a series of factors affecting general quality of life.

Thus the term “Quality of Life” became very frequented, but is still not precisely defined, which is due to the fact that it is being used in a number of scientific disciplines: in medicine, psychology, sociology, cultural anthropology, ecology, economy and politics. Each one of these disciplines perceives and assesses the term quality of life differently. That is why today many refrain from using this term. We, however, remain (as do many other authors) “faithful” to it, also because it is not as much a term as a real and key entity for the life of people, families and the entire society.

There is no universally accepted definition of “quality of life”. As stated by Helena Hnilicová (2005), terms such as “social well-being”, “social welfare”, “human development” are used as terms equivalent in meaning to quality of life, although they clearly do not mean the same thing. It is evident that the concept of quality of life is a complex one and it must be understood as an interaction of factors of health, social factors, economic and environmental factors, etc. The subjective aspect of quality of life concerns human emotionality in particular (expressed by the term “satisfaction with life”), whereas its objective aspect concerns the fulfillment of requirements placed on physical health, social status and the material conditions of individual lives. This raises the question of how to best measure and assess quality of life – whether according to the subjective or the objective factors. We can see that this question is practically significant on the example of homeless people who do not complain about their quality of life, even though according to the objective assessment their quality of life is undoubtedly poor.

Three basic concepts of quality of life are most frequently distinguished by scientific literature: psychological, sociological and medicinal. The psychological concept of quality of life attempts to denote the subjectively experienced well-being and satisfaction with the individual life in terms of their satisfaction with life as well as the experiencing of subjective well-being. Here the cognitive and emotional dimensions should be taken into account.

In attempt to determine the meaning of quality of life more broadly, the so called pillars of happiness were defined, to which belong these following phenomena: 1) competence – the feeling that I can and may do something meaningful; 2) autonomy – the feeling that I may do what I want to, that I decide about and control my life; and 3) propensity – the feeling that I am bound to other people, a feeling leading to self-esteem (Hnilicová, 2005).

In the sociological concept of quality of life social success is emphasized (wealth, education, marital status, etc.). This includes the assessment of standard of living as a measure of the quality and quantity of goods and services. The indicators are gross domestic product “per capita”, life expectancy, neonatal and infant mortality, the number of physicians per every 1000 inhabitants, but also the numbers of televisions, telephones and automobiles “per capita”, etc.

In the medical understanding quality of life is essentially a quality conditioned by health and disease. Quality of life assessment has for years been supported by the well-known definition of health by World Health Organization: “Health is a state of complete physical, mental and social well-being, not just the absence of



disease or infirmity,” which is undermined by the vagueness of the term “complete well-being”. It can be argued that health conceived as such is a prerequisite for quality of life. However, as quality of life is a phenomenon rather evaluable subjectively than objectively, it can be expected that this condition will not be fulfilled with some individuals and moreover, there will be a discrepancy.

According to Ruut Veenhoven (2000), or her model of the four qualities of life, one of these qualities is life's self-evaluation in the sense of “subjective well-being, satisfaction, happiness and sense of meaning.” This is the “concept of quality of life which is widely applied in human sciences and medicine, creating its own methodological procedures, including evaluation of satisfaction with individual areas of life, evaluation of prevailing mood and overall satisfaction with life.” Individual evaluation of quality of life is dependent on many factors, mainly on the personal and emotional predispositions of the individual, his experiences, his resilience to cope with normally as well as extraordinarily stressful situations. It is also, or rather especially, dependent on the individual's values or his system of values, his life goals, it being understood that health is one of the most precious values of life and a goal, which is necessary to achieve not only in the situation of a disease.

We know that a healthy personality is that which assesses itself as satisfied. The concept of the self in psychology is often referred to as the “ego”. Milan Nakonečný (1998) argues that there are two levels of self-perception: firstly the “real ego”, which is the one the individual considers himself to be, and secondly the “ideal ego”, which is the one the individual strives to be. If the difference between the two is not too great, we consider the individual to be more or less balanced, content with himself. Based on the above, we can say that this is an individual with a high quality of life. Satisfaction with oneself in this case means a healthy personality. The opposite of a healthy person is a person who is dissatisfied with himself, a person wanting to transform into the “ideal ego”, an “ill” person. Healthy self-esteem and self-love is the foundation of the mental stability of an individual (cf. Preissová Krejčí, 2006).

From this perspective the influence of the family appears as crucial because the child is fully dependent on the care of the family for a long time, thus also on the family's attitudes towards health, its preservation and protection and, what is more, the family is where the child learns to form its own attitudes towards health and disease, as well as towards all other important aspects of life. Whether it will evaluate its life as satisfying in the future thus relies on a number of factors, undoubtedly also on its system of values and the quality and extent to which its needs are being fulfilled, which is in direct correlation to the values of any given individual (cf. Cichá et al., 2009). Therefore we also present selected results of an investigation into the value-orientation of youth with a focus on the impact of the family on the values and attitudes of youth in the Czech Republic (Preissová Krejčí 2006; published as in Preissová Krejčí, Čadová, 2006). The age of adolescence, i.e. the age between 15-20 years, is considered, in terms of developmental psychology, to be a key period in the development of morality and character traits of the personality, which have a tendency to remain stable in the following period. The results of this and other similar empirical evaluations (cf. e.g. Sak, 2000; Sak, Saková, 2004; Horák, 1997a; Macek, 2003) can therefore be viewed simultaneously as a sort of prediction of value-orientations and thus also of the conduct and behavior of the emerging generation. The study of values and preferences of adolescents is crucial for improving the educational process in our schools and, given the importance of education in contemporary western world, contributes to the improvement of the quality of their lives. As reported by Mareš (2006), the quality of school life is not easy to define. “Usually it means the common practice of perceptions, experiences and reactions of all the individuals in the school to that which is happening at the school, where they must live and work.”

Method

The main objective of the research was to clarify the positions from which the value-orientation approaches of today's youth stems from as well as its morals and morality, in order to contribute to the improvement of the



educational process, especially the teacher-pupil relation. The operational objective, which will be our main focus, due to the thematic concentration of our study, was to determine the relationship of adolescents to the value of health and the impact of the environment in which they grow up or study on their value-approach orientation. In this regard a research question was proposed, asking about the morals and morality of adolescents, and whether or not these differ based on the type of school they attend and according to the intellectual and social environment in which they live. We tried to answer the question of how the studied sample value their health, the position of health in their system of values and how this system of values is affected by their family background.

The research was carried out during the academic year of 2004/2005 via the technique of a survey amongst students of selected secondary schools and high-schools in the regions of Zlín and Olomouc. The investigation was attended by a total of 855 respondents. As to gender, women predominated, as they accounted for two-thirds of the sample (577 women and 278 men). The higher proportion of women corresponds to their representation in the selected schools. The highest quantitative representation – according to the type of school attended – consisted of pupils from secondary vocational schools – the “SVS” – (304), then high-school students (296) and students of secondary vocational schools without a diploma (213) – the “SVSW”. The smallest group consisted of students of SVS with the diploma (41). It can be said that the age composition of the representative sample was appropriate to the students of high-schools and students from vocational schools. The group was represented by two major age groups, specifically 16 year old respondents (306) and 17 year old respondents (278). 169 respondents from the sample are composed by those of legal age.

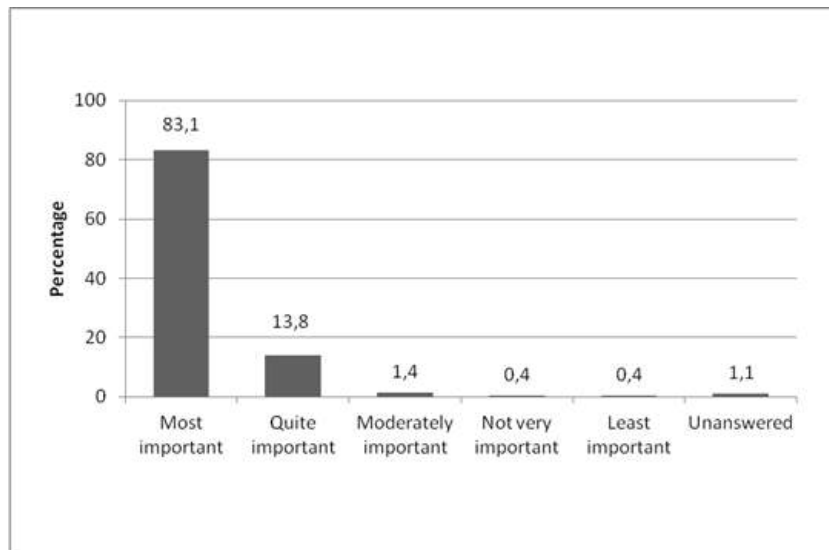
The questionnaire was structured into three thematic areas, the first of which focused on value-orientations of the students, the second on the form and criteria of evaluations concerning the shortcomings of pupils and teachers in the course of the educational process, and the third on the possible impact that religiosity might have on the values and approaches postulated by the respondents. Given the thematic focus and limited scope of our article, we continue our inquiry with those results of the extensive survey that are primarily related to the first of the postulated objectives. The questionnaire included closed and semi-open questions. The specific means of questioning are listed below as part of their evaluation.

Findings

Values of rather immaterial character, such as “love”, “friendship”, “health”, “family”, etc. were described by the respondents as very, sufficiently and moderately important. Only “religion”, itself being an utterly immaterial value, was seen as important by a significantly low proportion of respondents. Due to the minority of the religious population in Czech Republic, however, this result is not surprising. “Looking good”, “money” and “property” were marked as unimportant or of low importance by the respondents.

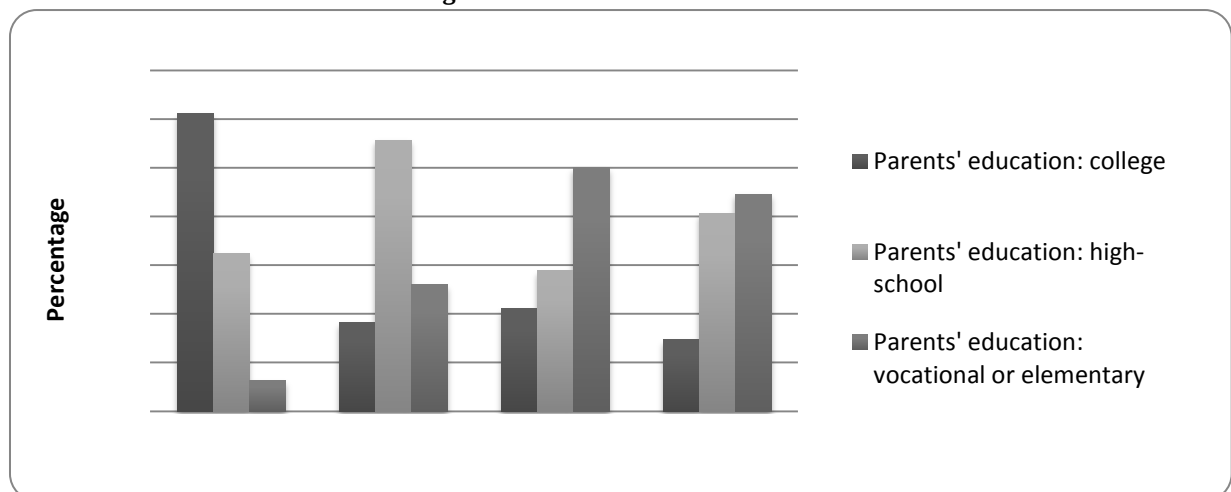
The order of values in the system of values of the surveyed youth could be summarized in the following descending order: 1. Health, 2. Friendship, 3. Family, 4. Love and Partnership, 5. Education, 6.-7. Being helpful to others and Success in school, 8. Leisure activities, 9. Money and Wealth, 10. Looking good, 11. Religion. Given the focus of our paper it is important to emphasize that the value of health is of most importance to circa 83% of high-school attendees (see Figure 1), whereas friendship, which appeared on second place in the system of values of our adolescents, was identified as the most important by a significantly lower amount respondents – nearly 64%.

Figure 1. Value of health



The order of values is repeated without significant deviations for all the respondents across all types of schools. We also examined the question of the differentiation of value-orientation of high-school students based on their family background. While the education of the parents does not seem to play a critical role in affecting the value-orientation of their progeny, the family background does so. The importance of education, religion and wealth declined proportionally to the incompleteness of the family (living with one or none of the parents), which corresponds to the “heightened” understanding of the family as the basic starting point of a good life, the absence of which it is difficult to replace by other means. To what extent to which the variables of “education of the parents” and “type of school” attended by the respondent are related is shown by the following chart (2). The findings presented here indicate the extent or lack of transmission of education from parents to their children. The chart shows that if the parents have a college degree, their children are likely to attend high-schools. Children of parents with a high-school diploma frequently attend a SVS and children of parents with a vocational or elementary education usually attend a SVSW.

Figure 2. Transmission of education



Another traditional means of analysis of value-orientations, in addition to values themselves, are questions regarding goals in life. A different method of questioning was used for their identification. While concerning the



system of values the respondents were asked to rate the different values on a scale from 1 to 5 (as in school), in this case we used enumerating questions where respondents were to select up to three goals that they wished to achieve during their lives. This made it possible to deduce more objectively the value preferences of our respondents.

Most commonly, the first three places were occupied by “having a functioning family” (correlating with the value of “family”, considered important by 95% of respondents), then by a huge margin and in almost perfect accordance “having many friends” appears (also corresponding to the value of “friendship” – 97% of the respondents) and lastly the goal of “being financially secure” (as opposed to the value of “money and property” which was ninth in the order of a total of 11 values, as identified by 50% of the respondents). Thus the same sample of respondents attributed a much greater value to financial security than they declared in their system of values. In comparison with the aforementioned “pillars of happiness” we might conclude that our respondents would consider the “pillar of propensity” to be of the greatest importance, as it is characterized by a feeling that one is bound to other people, a feeling leading to self-esteem, which, as mentioned above, carries undeniable impact on the health, mental stability and therefore the quality of life of an individual. The goal of “being financially secure” corresponds to the “pillar of autonomy” which gives us the feeling of being able to make choices about our lives.

On the other hand, the least chosen life goal was “to develop my spiritual faculties and spiritual abilities through faith and meditation,” which could be classified under the “pillar of competence” (i.e. the feeling that I can and may do something meaningful). However, this finding is not surprising since it corresponds to the value of “religion” (generally of least importance – placed on the last, eleventh place) and both assures us of the subsidiary importance of religiosity in the lives of adolescents. Only up to 20% of the respondents considered helping others amongst their goals in life. However, the value of “being useful to others” was considered as important by 71% of the respondents. In this case the respondents have “ethically embellished” their values in comparison with reality. But what seems positive is the fact that a relatively small proportion of respondents set the goal of gaining what they wish in life regardless of others, which could meet the requirements of autonomy, however it directly contradicts our relationship with other people, the “pillar of propensity”.

Results mapping the preferences of respondents according to their goals in life in relation to the structures of their families are very interesting. The three most common forms differ slightly in their percentage. Respondents who live in families with both their parents declare having a functioning family as their greatest goal in life. In second place, but by a large margin, they set the need for many friends in their lives and thirdly they would like to be financially secure. Respondents who live in families with one of their parents also declare the need of a functioning family, second place is occupied by wanting financial security and third place by friends.

Respondents who live with neither one of their parents also want a functioning family. Second place differs from the first two situations as this group of respondents would prefer to only do what they like in their life, regardless of others. Third place is occupied by financial security. Also the least amount of respondents that want to have many friends are from the incomplete family group. The overall ranking shows that the least amount of respondents chose “to develop their spiritual faculties through meditation and faith” as their life goal, as well as “to gain what I want in life regardless of others”. In the latter case, the proportion of the “selfish” rises as the “number of parents” in the household decreases. See the last row in Table 1 as well as the line “doing only what I like in life”. From this we can infer that children from incomplete families have impaired relationships to others and behave egoistically more frequently than children from complete families.

Table 1. Goals in life according to family structure

Type of Family



	with both parents		with one parent		with neither parent	
	amount	percentage	amount	percentage	amount	percentage
functioning family	448	72,5 %	145	69 %	11	68,8 %
success in employment	241	39,0 %	78	37,1 %	5	31,3 %
financial security	262	42,4 %	86	41,0 %	7	43,8 %
developing spiritual faculties	28	4,5 %	10	4,8 %	1	6,3 %
helping others	123	19,9 %	39	18,6 %	4	25,0 %
Traveling	137	22,2 %	42	20,0 %	3	18,8 %
independence from others	106	17,2 %	42	20,0 %	2	12,5 %
doing only what I like	137	22,2 %	52	24,8 %	8	50,0 %
many friends	273	44,2 %	80	38,1 %	5	31,3 %
getting what I want regardless of others	45	7,3 %	24	11,4 %	3	18,8 %

Priorities of goals in life differ not only according to the structure of the family, but also by the type of school attended by the respondent. The results confirmed our hypothesis concerning the transmission of education in society. High-school students want more from life than just financial security. They want to be successful at work, they want to travel and keep having many friends. Also, of all the groups, they preferred developing their spiritual faculties the most. They are not reluctant to deepen the spiritual dimension of their existence. We may generalize in the sense that their goal in life is continued education. Traveling is a goal in life for a significant number of SVS students. SVS students without diploma are the leading group in wanting to be financially secure, which is somewhat of a paradoxical finding given that as people with a low level of formal education they lack high earning prospects. They want the most out of life irrespective of others. Their egoism thus appears to be more prominent than amongst high-school students. They are not interested in their personal growth or their spiritual dimension. Nor do they require friends to achieve happiness. Incomplete family background should lead to – according to the questionnaire responses of respondents – higher preferences of egoistic behavior (“only doing what I like” and “gaining what I want regardless of others”). If we generalize the results of the given study, we can say that individuals with a background in a less socially developed environment have a propensity towards more selfish values as well as socially pathological phenomena (drug addiction, criminality, etc.).

Results, Conclusions and Recommendations

Our research project followed the tradition of value-orientation surveys amongst youth in the Czech Republic, in which, however, we wish to update and, in some cases, to even reconsider previously formulated conclusions. Analyses carried out in recent decades (Sak, Saková, 2004; Horák, 1997; Macek, 2003) focused primarily on changes in value-orientations of youth in the context of the radical changes in Czech society after November 1989. Despite their good elaboration we see two gaps in the existing researches. The first one is the fact that the questionnaires were carried out in the narrow framework of pedagogy without a broader basis in the discourse of contemporary humanities (integral anthropology, philosophy focusing on issues of postmodernism, cultural anthropology) or health education, applied human sciences, etc. The second deficiency consisted mostly of a small differentiation regarding the sample of respondents – youth was often understood as a whole regardless of the social background of students. For this reason we have specifically chosen to differentiate the sample according to three main variables: school attended (high-school, SVS, SVSW) thus following the researches analyzed by Josef Horák, intellectual background of the family (parents with college, high-school or elementary education) and family background (respondent lives with both, one or neither one of his parents).

During revolutions, wars and coups, the original system of values undergoes fluctuations, according to Sak and Saková (2004), which, however, following a period of instability, return to the original system of values of the given culture, since the system of values of a society is not bound to a single ideology, political system, etc., “but



it is intertwined with the culture and emerges from the dimension of the historical cultural development as a whole.” Petr Sak devoted himself to studying the youth in the course of over a decade and his publications provide the following conclusions: system of values of the youth has a long-term inclination towards values which “speak of the rising materialism, secularism, atheism, hedonism, egoism and liberalism” (Sak, Saková, 2004). In the future adolescents will gravitate towards professional success, performance, social status and wealth. According to Sak (2000) this hedonistic human orientation is created by a preference for the value of hobbies, interests, friends and love. Sak argues that an important part of these orientations falls upon interpersonal relationships, yet such that do not constrain the individual. According to Sak and Saková (2004), contemporary adolescents, similarly to their predecessors from the nineties, adhere to the following order of values (descending from most important to negligible): “health, love, peace, life partner, freedom, friendship, family and children, healthy natural environment, democracy, truth and knowledge, interesting job, development of personality, salary and income, success in employment, education, hobbies and interests, being useful for others, wealth, social prestige, socially beneficial conduct, God, politics.” As we have shown, our research differs from those of Sak in many ways, in some places radically so, while the time difference is only three years.

Josef Horák also explored the issue of value-orientation of adolescents and later summarized his results in the mid-nineties. His work anticipates the findings of Petr Sak. Life values: health, family life, life in peace and friendship are at the top of the list of values of youth despite the fact that the respondents created these lists themselves in a sort of “experiment” of the author. Horák (1997b, 54) states that the low value attributed to education is astonishing. He explains this as a lack of appreciation for education in the society as well as by the respondents' relationship with the methods of education in schools, the methods of individual teachers and the school environment in general. Due to the obvious fact that the value-orientation of youth is strongly determined by the society, especially by the “microenvironment” of family and school, Horák (1997b) believes that a comprehensive reform of the educational process must take place. Upbringing and education should be based on experiential, empathic education rather than on the cognitive component. Researches undertaken by Horák are in many ways consistent with our findings even after then years, only education has a higher value for present day adolescents.

To conclude this discussion, following the results of previous studies of the value-orientation of adolescents, we would like to present the opinion of Petr Macek (2003): “Today's generation of adolescents differs from the previous generations primarily in their personal experiences.” Their life is influenced by the development of information technologies (which also became the subject of recent research by Petr Sak), the globalization of culture, the relativization of traditional values, problems in acquiring an identity and the postponement of parenthood. The achievements of a free and democratic society are commonplace, whereas the generation growing up in the nineties valued them excessively: freedom of opinion and religion, international travel and the opportunity of good language education. Adolescence is a period which is a largely free, protected and “conditioned” space, where adolescents do not yet feel full responsibility for their lives, but at the same time they are offered a myriad of options for self-development, it is a period of acquisition of social status and education, of focusing their lives and of making peace with reality. There is a certain relativization of norms and values in adolescence, notions of good and evil are “blurring”. [...] As reported by Macek (2003), “the relativization and weakening of unchanging norms and values probably leads to a rising importance of the actual experience and situation in young people, as well as a heightened orientation towards the present (a fast and intensive “consummation of pleasure” and delays or complete refusals of long-term commitments).” Macek, like Sak, sees a tendency towards hedonism among the young population.

In our research we followed some very critical opinions on contemporary youth, speaking of a general feeling of alienation of today's adolescents towards the community and order, of the aimlessness of their lives and of the



marginalization of the value of education in radically materially oriented generations of the last two decades. However, we were positively surprised by the findings of our research of the values and life goals of the Czech adolescent population. We have to agree with Josef Horák (1997) who considers the inadequacy of educators to be a serious problem distorting the proper conduct of the educational process, since they are incapable of creating such an educational environment that would base education on experiences rather than lecturing. Similarly, we agree with Petr Sak and Karolína Saková (2004) who state that the value-orientation approach develops in a framework of intergenerational relationships of ethnicity and culture, this being a long historical process, which is only temporarily interrupted by historical upheavals, such as revolutions or changes of the political system. Students often declared that they inherit values of their parents and grandparents, and in many cases they considered their parents to be role models complete with their behavioral and moral principles.

In connection with the above statement we return at the end to the results arising from the dissertational thesis by Andrea Preissová Krejčí (2006; cf. Krejčí, Čadová, 2006; Preissová Krejčí, Čadová, 2006; Preissová Krejčí, Cichá, Gulová, 2012). We argue that each individual creates their own values and value-orientations, based on past experience, borrowed attitudes and opinions of past generations, upbringing and education. Values are the foundation of our morals and morality. Our morals are based on an identification of our own opinions on what is right, good and true with the opinions of the society. Our morality is based on the stability of our personal opinions on good and evil and other qualitative judgments. A regular and fair assessment of the performance of the pupil by the teacher leads the pupil to create his own values, which are then later fixed in a value-orientation focusing the student in a particular direction (and vice versa).

Knowledge associated with evaluating what we know and what we believe creates our convictions. Human convictions do not have to correspond with true knowledge, it is, however, always closely connected to the feelings and emotions of the person. Conviction is the basis of the mental stability of an individual, attitudes and conduct, closely related to the character of the personality, depend on it. Conviction has an undeniable impact on human understanding, learning and assessment. As stated by Horák (1997): “One values differently when one is convinced about something.”

A belief is fulfilled and objectified in attitudes and conduct. The current young Czech generation, in light of this and other studies, is a mirror of the society. Overlap with other people plays an ever diminishing role, unless those people are friends, who in return contribute to the satisfaction of the social needs of an individual. This process, however, according to us, is not to be viewed as a tendency towards a pernicious atomization of the society, since the most important goal of young people is the establishment of functioning families, although likely postponed to a later age. Material wealth does play an important role in human life, though their acquisition is sensible primarily as a needs to securing all the necessities for establishing the basic unit of society – the family.

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References

- Cichá, M., et al. (2009). Kvalita života jako klíč ke zdraví jedince, rodiny, společnosti. In Čáp, J., Žiaková, K., et al. *Teória, výskum a vzdelávanie v ošetrovateľstve a v porodnej asistencii*. Martin: Univerzita Komenského v Bratislave, 580-585.



- Hnilicová, H. (2005). Kvalita života a její význam pro medicínu a zdravotnictví. In Payne, J., et al. *Kvalita života a zdraví*. Praha: Triton.
- Horák, J. (1997a). *Škola a hodnotová orientace dětí a mládeže*. Liberec: Technická univerzita.
- Horák, J. (1997b). *Kapitoly z teorie výchovy. Problematika hodnot a hodnotové orientace part 2*. Liberec: Technická univerzita.
- Krejčí, A., Čadová, L. (2006). Hodnotová orientace a životní postoje současných adolescentů. *Paidagogos, časopis pro pedagogiku a s tím související vědy*, 2006(1).
- Macek, P. (2003). *Adolescence*. Praha: Portál.
- Mareš, J. (2006). Škola a kvalita života u dětí a mladistvých. In 2. konference ŠKOLA A ZDRAVÍ 21 [on-line]. Brno [cit. 2019-07-09]. Available at <http://www.ped.muni.cz/z21/2006/konference_2006/sbornik_2006/pdf/031.pdf>.
- Nakonečný, M. (1998). *Psychologie osobnosti*. Praha: Academia.
- Preissová Krejčí, A. (2006). *Projekt integrální antropologie s aplikací v pedagogice při hodnocení mravnosti současných adolescent v edukačním procesu*. Dissertational thesis. Olomouc: Univerzita Palackého v Olomouci, Pedagogická fakulta.
- Preissová Krejčí, A., Čadová, L. (2006). Hodnocení morálky, životních cílů a postojů u vybraného okruhu dospívající mládeže v Olomouckém a Zlínském kraji – „zpráva z realizace rozvojového projektu“. *E--Pedagogium*, 2006(1), 57-70.
- Preissová Krejčí, A., Cichá, M., Gulová, L. (2012). *Jinakost, předsudky, multikulturalismus: možnosti a limity multikulturní výchovy*. Olomouc: Univerzita Palackého.
- Prittie, T. (1974). *Willy Brandt; portrait of a statesman*. New York City: Schocken Books.
- Sak, P., Saková, K. (2004). *Mládež na křižovatce*. Praha: Svoboda Servis.
- Sak, P. (2000). *Proměny české mládeže*. Praha: Petrklíč.
- Veenoven, R. (2000). The Four Quality of Life. Ordering Concepts and Measures of the Good Life. *Journal of Happiness Studies*, 2000 (1), 1-39



Czech District Schools in Croatia - Sources of Resistance to Croatization

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Abstract

One of the factors that has a major impact on maintaining Czech national identity beyond the borders of the Czech state is the existence of Czech schools and teaching in the Czech language. Minority schools began to form in Croatia after the First World War and experienced further development especially after 1945, at that time hundreds of children in Croatia were taught in Czech language. Our aim is to build on the description of the current state of minority education in Croatia, which we described earlier (ICLEL 2018) and to focus in more detail on the so-called district schools with teaching in the Czech language, and these schools show primarily how targeted effort against assimilation brings its fruit. Currently two kindergartens, two elementary schools and six district schools in Croatia teach most of their subjects in Czech language. District schools are irreplaceable for the compatriotic community because, with the help of the Croatian government, they enable minority language lessons in small classes in settlements where the Czech ethnic group has survived to this day, even for two or three pupils.

Keywords: Czech minority in Croatia, District schools, Czech language, National identity, Croatization

Introduction

National pride and identity are the values taught in schools all over the world. We may favor transnational community, multicultural ideology, but we are unwillingly confined to others in our identity. We Czechs are a small nation, so it is not surprising that about 10% of us live abroad. The countrymen thus form a substantial part of our nation. One of the factors that has a major impact on maintaining Czech national identity beyond the borders of the Czech state is the existence of Czech schools and teaching in the Czech language. Minority schools began to form in Croatia after the First World War and experienced further development especially after 1945, at that time hundreds of children in Croatia were taught in Czech language. Our aim is to build on the description of the current state of minority education in Croatia, which we described earlier (Cichá, Kočí, Preissová, 2018) and to focus in more detail on the so-called district schools with teaching in the Czech language, and these schools show primarily how targeted effort against assimilation brings its fruit. Currently two kindergartens, two elementary schools and six district schools in Croatia teach most of their subjects in Czech language.

District schools are irreplaceable for the compatriotic community because, with the help of the Croatian government, they enable minority language lessons in small classes in settlements where the Czech ethnic group has survived to this day, even for two or three pupils. Learning options in minority language are very variable and every school is different. Minorities may have their own schools where all subjects, except Croatian language, are taught in language of the minority. There are two schools of this type in Croatia: J. A. Komenský elementary school in Daruvar and J. Růžička elementary school in Končence.

Their accessibility to dispersed members of the minority plays an essential role for Czech schools. That is why both elementary schools have kept their branches in the surrounding settlements for generations. Where Czechs



live in larger numbers, they organize themselves into voluntary associations and maintain schools with Czech language teaching. Nowadays, Czech schools have these small classes in the surrounding settlements.

1. District school Dolany
2. District school Dolní Střežany
3. District school Horní Daruvar
4. District school Lipovec
5. District school Daruvarský Brestov
6. District school Ivanovo Selo (even though it is a district school of the Croatian elementary school, pupils are taught in Czech language)

Apart from the complex education in Czech language, children may improve the language of their parents or grandparents in classes of Czech language at Croatian schools. Last year, the number of pupils learning Czech language in Croatia was 1,023 children (*Jednota*, 2018, February 24, p. 4).

Less than 10,000 people claim to be Czech in Croatia. The number of children learning Czech is therefore more than satisfactory. Teachers from Czech schools, especially Czech language, organize a number of events for minority children during the school year. Children from district elementary schools also participate in these events. Their existence and activities are supported by municipalities, the Union of Czechs, the Croatian state and the Czech Republic. Being a minority pupil is often an advantage in Croatia. The richness of the dual homeland, two mother tongues and cultural experiences make their lives richer and more varied.

Method

The study is primarily based on a textual analysis of sources stored in the Archive of the Union of Czechs in the Republic of Croatia and in the Archive of the Newspaper Publishing House *Jednota* published by the care of compatriots. Specifically, it includes book publications on the history of selected Czech schools, the annual Czech People's Calendar and the weekly *Jednota*. The findings of the research carried out in the above-mentioned archives between 2016 and 2019 are supplemented by findings from direct confrontation with compatriot reality, because we had the opportunity to visit most of the district schools in person.

Findings

District school Dolany

The district school in Dolany was established as a Czech small classroom as part of the Croatian school in 1944. The first teachers were Hermína Tichá (in the first year) and František Viktora, who worked here from 1945 to 1954; the number of pupils of the school exceeded forty at that time. Teacher Ivanka Gajdošová Farkašová (1968–1981) worked here for the longest time. She was actively engaged in discussions cultural and educational life in Dolany.

In the school year 2018-2019 Iveta Sochorová Toufarová taught here. However, only two pupils attended the Czech District School in recent years (*Český lidový kalendář* 2019, 2018, p. 179). Unfortunately, the following school year no one enrolled in the Czech school department. Thus, at least so far, after more than 70 years, the existence of the Czech school in Dolany ends, because there are no children who would be interested in the Czech school in the settlement (*Jednota*, 2019, January 12, p. 5).

District school Dolní Střežany

In Dolní Střežany, Czechs used to make up 90% of the population. The school was founded here in 1946. In 1953, due to the large number of pupils, the school had six grades even. Unfortunately, there were not enough teachers to come from the minority and teach the children Czech language. Finally, since the school year



1970/71, the school in Dolní Střežany was assigned as a district school to the J. A. Komenský Czech elementary school in Daruvar. After that, the teaching of Czech language at the school was strengthened and the Czech school is still here.

There are six pupils in the small classroom in Dolní Střežany, taught by teacher Velimir Lalić (*Český lidový kalendář* 2019, 2018, p. 180). Children come here from nearby Holubňák village, where the Czech school has been closed since 2006.

District school Horní Daruvar

The district school in Horní Daruvar also did not exist before World War II. Teachers in this school often changed. Alenka Hlušíčková Horáková worked here for the longest time (three decades). During the Homeland war in Yugoslavia she organized private lessons for pupils who did not go into exile.

The number of pupils has fluctuated around ten children but has fallen rapidly over the last two decades. In the school year 2017/2018, two pupils attended the school, taught by Monika Lukićová (*Český lidový kalendář* 2019, 2018, p. 179).

District school Lipovec

There was no school in Lipovec until 1956. The local school was built after the construction of the National House, where a school and apartment for teachers were built on the first floor (Daněk, 1997). Among the teachers who gave the face of this school and actively contributed to the life of the village, was Lenka Janotová who taught at this school from 1969 to 1981. In the school year 2017-2018, the school had two departments (classes) and one of them had her daughter Jitka Janotová Doležalová.

Today only Drahuška De Bonová (since 1990) teaches here. She also works on material and human development of the school and the municipality. A small class in Lipovec is attended by 9 pupils from the 1st to the 4th grade (*Český lidový kalendář* 2018, 2017, p. 162).

District school Daruvarský Brestov

There was a Croatian school in Daruvar Brestov since 1855, the Czech parallel department was not opened until 1926. Czech parents initially favored the Croatian departments. However, thanks to the diligence and thanks to Czech teachers, Lenka Kalenská and Cecilie Řeháková, in the thirties, after the reopening of the parallel department, the number of children increased up to 120, which is why since 1934 another parallel Czech department has been opened in Brestov. This situation was preserved until 1941, when Czech schools closed (Vinter, 2007).

After World War II, an independent Czech school was established in Brestov, but in the first year the situation at the school was conditioned by political events affecting the area, teachers received no salary, there was food shortage, there was municipal soup kitchen in the church. School in Končence was plundered, school in Brestov withstood. Finally, two years later there were quieter times and brought the opportunity for education development. In 1946 two schools were established in Brestov, Czech and Croatian, each of which had its own administration. Since 1950/1951, the school established six grades. The new Education Act made compulsory eight-year school attendance, the first generation of pupils from both Brestov schools came out of the eighth grade in the school year 1956/1957. In 1962, the Daruvarský Brestov elementary school became the district school of the Czech elementary school Končence (Vinter, 2007).

The Czech Department of the District School in Daruvar Brestov temporarily ceased to exist for a small number of pupils between 2000 and 2013. After its renewal Elenka Podsedníková started teaching here and the school



was attended by 5 pupils. Today Romana Jurićová works here, who had 3 pupils in the class in school year 2017/2018 (*Český lidový kalendář 2019*, 2018, p. 183). However, a year earlier the department was attended by 7 children. Most children regularly participate in the folklore group of the local folklore group Beseda and in the Volunteer Fire Brigade Daruvarský Brestov (*Český lidový kalendář 2018*, 2017, p. 165).

District school Ivanovo Selo

Ivanovo Selo is the first settlement founded in 1826 by Czech immigrants. The district school in Ivanovo Selo falls under Croatian I N. Jemeršić school in Hrubečné Pole (since 1958), but the education was conducted in Czech language. However, the establishment of a Czech school in Ivanovo Selo, a village where Czech ethnicity has prevailed for generations, was complicated. Croatian teachers worked there and so they taught in Croatian language. Even in the period between world wars, as Herout (2012) states, pupils could only choose between Croatian or Serbian language. After the establishment of the Beseda – Czech compatriot organization in Ivanovo Selo (1934), the compatriots repeatedly asked for the establishment of a Czech school in the village, but their request was rejected. The Czech school was founded in Ivanovo Selo only after World War II.

The education took place in private spaces or houses, it is interesting that these were in Kopec Street, leading to the local cemetery, and today there is a school on this street. For the first school year, 65 pupils attended school (Koutníková, 2012). In the first two decades of its existence, the teaching staff has often changed. Rudolf Koutník (1953–1983) and Justýna Koutníková (1957–1992) became permanent teachers at the school.

In the last two decades, the number of pupils in the school has been fluctuating, never exceeding fifteen pupils. This trend began in 1980s, when, as described by teacher Justýna Koutníková, the young people started to move from town to town and with the depopulation of villages there was a dramatic decrease in the number of pupils at school (Koutníková, 2012, p. 40). Ivanovo Selo was tragically hit by the events of the Homeland War. Fifty children from Ivanovo Selo, Rašenice, Hrubečné Pole and Tréglava (surrounding settlements), pupils of elementary and secondary schools, were evacuated to Czechoslovakia on 20th September, accompanied by teachers Rudolf Koutník and Anna Vodvářková. (In 1991, 1500 children, mothers with children and their teachers were evacuated from Daruvar and its surroundings to Bohemia and Moravia.) After the war, the small-class school remained a four grades school.

In the school year 2017/18, eleven pupils attended the school. They were taught by Kanie Dell 'Oli and Sanela Glamočić. Pupils are actively involved in most of the events of Česká Beseda in Ivanovo Selo, mainly through their theatrical activities, and also in all events organized by the Union of Czechs (*Český lidový kalendář 2018*, 2017, p. 166).

Results, Conclusions and Recommendations

District schools often provide students with above-standard conditions for education. These are often small classes, where the teacher teaches just a few pupils and the education is special and often reminds private individual education. Croatia is currently hardly comparable to another European country with their great support of minority education.

The social life and motivation of minority pupils, in this case Czech schools, is also above standard. These include, for example: The mother tongue month, where even in district schools, with the help of lecturers and trainees from the Czech Republic, interesting Czech language lessons are held under the slogan "Playing with Czech language". For example, 11 pupils of the small class - district school in Ivanovo Selo on 14th February 2018 were guessing Czech words, stories were told, learned new words and painted, in short they learned Czech by play (*Jednota*, 2018, February 24, p. 3). Croatian teachers and pupils are proud of their mother tongue, so they take care of it with love and try to convey to the pupils that the Czech language is their wealth. That is why



they annually organize the Czech Olympics during the month of their mother tongue. The ceremonial announcement of the results of the Czech language Olympics took place this year on 21st February in the hall of the Czech House in Daruvar on the International Day of Mother tongue. Among the winners were also pupils from district schools, this time from Lipovec. In announcing the results, Jitka Staňová Brdarová, a Czech school counselor, emphasized that pupils were right to be proud of their knowledge of two mother tongues. And the headmistress of the Daruvar Czech school Marie Válková described all the participants of the Olympics as the winners (*Jednota*, 2019, March 2, p. 5).

The nationwide show of compatriot art of pupils who learn Czech is an event named Our Spring, which has a folklore, literary, dramatic and artistic part. This year, a major part of the event took place at the district school in Dolany, namely Our Spring of Art and Theater. 107 pupils attended the show, including the Dolany district school, the District school Lipovec and the Ivanovo Selo district school (*Jednota*, 2019, May 18, pp. 5–7). A very popular cultural event attended by children from all Czech schools, including district schools, is called The Bread Day.

Schools, although The World Bread Day in Croatia is celebrated on 16th October, adapted the date of celebration to their needs, and so in Ivanovo Selo is celebrated on 17th October with lots of sweet treats, while in Končevice and Daruvar Brestov on 16th September by exhibitions of pastries and fruits from gardens and local fields. In Lipovec, the pupils of the local district school were mixing and baking with the teacher at her home, the whole week was then thematically focused on thanksgiving for the fruits of the earth at school (*Jednota*, 2018, November 10, pp. 12–13). The list of events that enrich the lives of pupils from district schools during the year is far from exhaustion, but perhaps it is enough to give the reader an idea of how much the cultural minority is trying to pass on to its children through the school.

Donors from the Czech Republic do not forget about children in the district schools; school supplies to Czech schools in Croatia are regularly supplied by the Czechoslovak Foreign Institute in cooperation with the Embassy of the Czech Republic in Croatia. Last year, they prepared a package of art supplies for first graders in Czech schools (*Jednota*, 2018, August 18, p. 5). As we learn from the Czech press, two pupils of the first class at the Czech school in Ivanovo Selo, one pupil in Lipovec, four pupils in Končevice and twenty-nine pupils in the first two classes in Daruvar (*Jednota*, 2018, September 8, p. 28). So, together with our compatriots, we can hope that thanks to the strong and multi-source support of the district schools in the villages, the compatriot community and the Czech language will continue in Croatia in the next generation.

District schools play an irreplaceable role for the expatriate community, since with the help of the Croatian government, the allow minority language lessons to be taught in settlements where Czech ethnicity has survived to this day, even though it is only two or three pupils. Maintaining the elementary schools, even with such a small number of pupils, is possible only because the Czech minority is aware of the importance of the education of compatriot children in the Czech language. This is precisely the prerequisite for preserving the Czech national identity in Croatia in the future.

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References



- Cichá, M., Kočí, J., Preissová Krejčí, A. (2018). Schools and Press – the Two Pillars of Czech National Identity in Croatia. In Titrek, O., Zembrzuska, A., Sezen-Gultekin, G. (eds.). *ICLEL 2018 Conference Proceeding Book*. Sakarya: Sakarya University, 433-436.
- Český lidový kalendář 2019. (2018). Daruvar: Jednota.
- Český lidový kalendář 2018. (2017). Daruvar: Jednota.
- Daněk, A., et al. (1997). *75 let České základní školy J. A. Komenského v Daruvaru, 70 let České mateřské školy Ferda Mravenec v Daruvaru*. Daruvar: Jednota.
- Herout, V. (2012). Chorvatská škola v české osadě (1820–1944). In Herout, V., Koutníková, J., Štrumlová Tučková, A. M. *Česká základní škola v Ivanově Sele a výuka češtiny na Hrubečnopolsku*. Daruvar: Jednota, 13–20.
- Jednota (2019). Děti vynikaly hrou, recitacemi a výtvarnými pracemi. May 18, 74(20): 5-7.
- Jednota (2019). Čeština je poklad o který musíme pečovat. March 2, 74(9): 5.
- Jednota (2019). Valná hromada Dolany. January 12, 74(2): 5.
- Jednota (2018). Vzdání díky za dary země. November 10, 73(44): 12-13.
- Jednota (2018). První den školy. September 8, 73(35): 28.
- Jednota (2018). Výtvarné potřeby pro prvňáky. August 18, 73(32): 5.
- Jednota (2018). Hrajeme si s češtinou. February 24, 73(8): 3.
- Jednota (2018). Snaha zpomalit asimilaci. February 24, 73(8): 4.
- Koutníková, J. (2012). Česká škola v Ivanově Sele (1944–2011). In Herout, V., Koutníková, J., Štrumlová Tučková, A. M. *Česká základní škola v Ivanově Sele a výuka češtiny na Hrubečnopolsku*. Daruvar: Jednota, 21–47.
- Vinter, J. (2007). *Česká a chorvatská škola v Končenicích*. Daruvar: Jednota.



The Beginning of Czech Education in Croatia (1921-1941)

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Abstract

Czech schools in Croatia have existed for almost a hundred years and still belong to the main pillars of Czech national identity in Croatia. The important element of the development of Czech schools in former Yugoslavia and subsequently in Croatia is its role in the process of resisting of the assimilation of the Czech minority in Daruvar region, which is the requirement to maintain the existence of the Czech compatriotic identity. The paper discusses the socio-political circumstances of beginning of the Czech education in Croatia. The authors will reflect both the problems the compatriots have faced when founding schools, including the reluctance of Yugoslav authorities, and the support activities from the side of the Czechoslovak Republic, which sent Czech teachers to Slavonia, all based in historical research of archival sources. Thanks to the effort of compatriots, the foundations of the institution of Czech education were laid at the beginning of the 1920s, while it now has a good reputation not only among the members of the Czech minority, but also in the major population of Croatia.

Keywords: Czech minority, Croatia, Minority school, National identity

Introduction

Czech schools in Croatia have existed for almost a hundred years and still belong to the main pillars of Czech national identity in Croatia. The important element of the development of Czech schools in former Yugoslavia and subsequently in Croatia is its role in the process of resisting of the assimilation of the Czech minority in Daruvar region, which is the requirement to maintain the existence of the Czech compatriotic identity.

The first Czech schools in Croatia were founded in the 1920s and they had a status of private schools. Their foundation was directly linked to the activity of the compatriot organizations which were founded in settlements and towns with a higher number of Czech or Slovak people. Their activities have been centrally dealt by so-called Czechoslovak Union (which was founded in Osijek) since 1921, it was later relocated to Beograd, and its successor is called the Union of Czechs in Croatia (Barteček, 2017, Daněk, 1997).

During the early 1920s, the compatriots initiated in the settlements (where a well-organized compatriot society already existed, or where a large number of compatriots, wealthy citizens or intellectuals lived) the foundation of Czech private schools. Their foundation, however, was not easy. The Yugoslav authorities did not support these efforts of Czechoslovaks – probably because they were afraid of other minority societies' possible activities, mainly from the national reasons. The lack of qualified Czech teachers was another complication – sometimes, even some Czech compatriots were against the idea since they strived to become integrated into the Yugoslav society. The Czech schools, however, were founded despite all obstacles (Matušek, 2017, pp. 131–132).

Furthermore, the role of Czechoslovak representative offices in Beograd and Zagreb and the assistance of Czechoslovak national agencies (which looked after the Czech schools abroad) was irreplaceable – e.g. the teachers were sent and paid by the Czechoslovak Ministry of Education and National Enlightenment.



At the end of 1920s, so-called parallel Czech schools in a form of minority departments under the administration of the state (majority) school. The teachers were chosen and paid by the Yugoslav Ministry of Education.

In addition, so-called complementary Czech schools, whose aim was to develop and complete the Czech language knowledge. The school attendance was voluntary after the classes at the public school while the children were taught by Czechoslovak teachers.

In the period between the 1st and 2nd World War, a Czech kindergarten in Daruvar (Janotová, Stráníková, 2014) and the Czech vocational school – Prokūpkova hospodářská škola – in Veliki Zdenci, later moved to Daruvar as well (*Archiv Svazu Čechů*, V/4, September 1929). The former one was founded in 1926, the latter school (founded in 1927) made a significant contribution to the education of peasant youth in the Daruvar area. Czech people were not successful in pushing through the proposal of founding their own Czech secondary school – the Czech language was taught several years in Daruvar secondary school and in Bjelovar as well, however, those were only language courses (Matušek, 2017, p. 136).

Method

The paper discusses the socio-political circumstances of beginning of the Czech education in Croatia. The authors will reflect both the problems the compatriots have faced when founding schools, including the reluctance of Yugoslav authorities, and the support activities from the side of the Czechoslovak Republic, which sent Czech teachers to Slavonia, all based in historical research of archival sources.

Findings: Difficulties linked to the foundation of Czech schools

The difficulties linked to the foundation of Czech schools were rather big. The authors present the most frequent ones below.

In the beginning, the lack of qualified Czech teachers and Czech textbooks (or books in general) was the principal problem. Both the issues were saturated thanks to the Czechoslovak aid (Stráníková, 2018). From the source materia: “*The beginnings were very difficult – there were neither books, not proper inventory that has to be found.*” (*Archiv Svazu Čechů*, V/2, February 2, 1927, p. 11). Among the private schools, the private Czech elementary school of Comenius in Daruvar excelled – not only in the number of pupils, but also in terms of the care from the Czechoslovak sider (Daněk, 1997, pp. 15–20). However, even this school (which is even now the largest in terms of the number of children and the size of the teaching staff) struggled to find teachers: “*Finally, in the beginning of November [1922], eagerly awaited Czechoslovak teachers arrived – Mr Oldřich Votava and Miss Vlasta Vollmanová who immediately took charge of the work at school.*” (*Archiv Svazu Čechů*, V/2, February 2, 1927, p. 11).

For the then schools, the equally principal problem was to have a building in which they were located – first, the Daruvarian school was located in a building in Donji Daruvar (till 1926) and it was relocated to a newly built Czech national house in Daruvar as late as 1939 (Daněk, 1997). It is possible to find out the most pieces of the then material since the school archive has been preserved in the Archive of the Union of Czechs in Croatia in the Czech national house in Daruvar until today.

The Yugoslav authorities were not in favour to the foundation of Czech schools. In the written sources, there are many evidences to this statement: “*The authorities were extremely unfavourable towards the school while the parents were often even fined when they have sent their children to the Czech school.*” (*Archiv Svazu Čechů*, V/2, February 2, 1927, p. 11). To this day, the compatriots keep the evidences of those events: “*The parents which have enrolled their children in the Czech school were called to the district council where they were*



threaten with a fine of 100 dinars in case they will send their children to a Czech school” (Stráníková, 2018, p. 28). After the year 1925, it was allowed to found parallel schools only. However, the Czech people opened language courses or complementary schools, even without permission (Matušek, 2017).

Croatian teachers were afraid of losing their jobs, therefore, they opposed the Czech schools as well. This is evidenced by e.g. a preserved chronicle of Czech school and Hercegovac settlement: *“Teacher Dragić and teacher Vlasta Ivanuš hated the school from the beginning and they even strived to destroy it. [...] The Croatian teachers deliberately delayed the children at school to keep the Czech children from coming to Czech lessons, they forbade Czech children to bring Czech books to Croatian school, they bullied in various fashion and agitated them among the unstable compatriots against the Czech school while they threaten them and they stuck at nothing.”* (Archiv Svazu Čechů, IV/8, pp. 14–15).

Even some Czech compatriots did not support the foundation of Czech schools. The compatriot historian and journalist Josef Matušek collected a number of examples which prove that even Czechs themselves were against the Czech school in the settlement. They were afraid of the possibility that their children would not learn Croatian language well enough and that they, therefore, would not be employable outside of the Czech community in their later life, and also that a private school would be too expensive for them to pay for the education of their children. For these reasons, the Czech school in Končanica struggled to get support from the Czechs (there is Czech majority even now). Also in Daruvar, some of the compatriots were against the Czech school: *“Some councillors declared that they are against the Czech school in Daruvar – two Czechs were among them.”* (Matušek, 1993, p. 72). Matušek also points out the concerns of parents about the bilingual teaching: *“The parents were against the Czech parallel school in many places as well; they pleaded the larger tasks and greater load put on children as an excuse.”* (Matušek, 1993, p. 77).

There were too high demands on teachers at Czech schools. There were more than 100 pupils per teacher. Especially in Czech parallel schools, there was a high number of job changing of minority teachers. *“If a minority teacher left because they was often unable to stay mentally or physically in the Czech department, or they was too comfortable to spend their free time on their job, they often had to wait a long time for the new teacher to come. Meanwhile, the children sat at home or attended a Croatian school instead.”* (Jednota, 2000, July 8, pp. 8–9).

Results, Conclusions and Recommendations: High quality of the Czech schools

The high quality of Czech schools (thanks to the qualified and hard work of Czechoslovak teachers) and successes of their pupils convinced not only the general public, but also the state administration in Yugoslavia of the necessity for the Czech minority. Despite the obstacles, Czech schools have often also received general recognition, as evidenced by the school inspector's statement: *“I wish that at least every twentieth school in south Slavonia was able to equal by the equipment, guidance and mood with this school.”* (Archiv Svazu Čechů, III/18, April 26, 1926, p. 3).

The principal share in the quality of the education had the Czechoslovak teachers who were sent and paid by the Czechoslovak government. The schools were very well evaluated by both Yugoslav school inspectors and officers and inspectors from Prague. The teachers were, therefore, under the constant supervision and they were forced to produce premium performance. In words of a compatriot: the selfless work of the whole army of Czech and compatriot teachers who strived and strive to instil the love to the Czech language, culture and awareness of the Czech identity into the youth generations is the main reason why the Czech minority in Croatia withstand the assimilation pressure (Stráníková, 2018, p. 23).



Czech schools were the pride of compatriot organizations, so they had well-designed school buildings, lecture halls, reference libraries and teaching aids, mostly thanks to the support of the Czechoslovak Ministry of Education. They often had even a puppet theatre.

During the interwar period, more than 20 Czech schools worked in Croatia – those include private schools, parallel departments, complementary schools, kindergartens or and the Czech vocational school – Prokúpkova hospodářská škola – there were 14 similar schools in other countries of the former Yugoslavia.

However, their boom was stopped by the 2nd World War. In July 1940, a new law on minority schools in today's Croatia made the position of both the minority schools and their teachers more difficult. The Czech schools got another blow when the Czech teachers were recalled the teachers back to the occupied country by the Ministry of Education of the Protectorate of Bohemia and Moravia (the then state unit in the area of today's Czech Republic) in November 1940. In April 1941, the struggles of 2nd World War hit also the compatriots. The Independent State of Croatia was declared. Czech schools were closed and their pupils were transferred to the Croatian state schools in the school year 1941/1942 (Daněk, 1997, p. 22).

This is also a period in which a large number of settlements with a large number of Czechs did not get their Czech school and Czech language lessons. Before the 2nd World War, two thousand pupils (including the school and kindergarten in Beograd) attended schools with lessons of Czech language in Yugoslavia. Nevertheless, Josef Matušek assumes that the same number of pupils did not get any chance or opportunity to attend a Czech school (Matušek 1993). After the war, many Czech schools were rebuilt or newly created. Their existence usually lasts in different forms to this day. *“Czech schools and also Czech associations have become cultural centers, from where they have influenced the wide surroundings.”* (Matušek, 1993, p. 74). Czech schools have kept this role in Croatia to this day.

Compatriots are aware of the role of Czech schools in their process of identity creation. At the same time, they more and more appreciate the work of the previous generations whose members managed to keep the Czech national identity in Croatia. It is not possible to disagree with the compatriot author Libuše Stráníková (Libuše Stranjik) who considers the Czech minority schools a world phenomenon since there is nothing comparable in a historical perspective (Stráníková, 2018).

Thanks to the effort of compatriots, the foundations of the institution of Czech education were laid at the beginning of the 1920s, while it now has a good reputation not only among the members of the Czech minority, but also in the major population of Croatia.

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References

- Archiv Svazu Čechů*, fond Československá (Česká) Beseda Daruvar (1960–1999), kart. V/4 Korespondence 1920–41, 1946–1955, Prokúpkova hospodářská škola ve Vel. Zdencích, září 1929.
- Archiv Svazu Čechů*, fond Československá (Česká) Beseda Daruvar (1960–1999), kart. V/2 Valné hromady 1925–1955, Výroční zpráva České Besedy v Dolním Daruvaru S.H.S. 1926–27, February 2, 1927.
- Archiv Svazu Čechů*, fond Československá Beseda Hercegovac (1960–1999), kart. IV/8, sl. Školství Hercegovac, Hercegovac – kronika Československé školy a osady.



- Archiv Svazu Čechů*, fond Svaz Čechů a Slováků (1960-1999), kart. III/18 Škola Daruvar (1930–1937) / Prokúpkova hosp. škola V. Zdence, sl. Kopie dokumentů Základní školy J. A. Komenského Daruvar, Počátky činnosti České soukromé školy v Daruvaru, April 26, 1926.
- Barteček, I., et al. (2017). *Po českých stopách na Daruvarsku*. Olomouc: Univerzita Palackého.
- Daněk, A., et al. (1997). *75 let České základní školy J. A. Komenského v Daruvaru, 70 let České mateřské školy Ferda Mravenec v Daruvaru*. Daruvar: Jednota.
- Jednota. (2000). July 8, 2000, 55(27).
- Matušek, J. (2017). *Češi v Chorvatsku*. 2nd Edition. Daruvar: Jednota.
- Matušek, J. (1993). České školy v Chorvatsku (1922–1941). *Přehled kulturních a historických, literárních a školských otázek*, 1993(14): 65-86.
- Janotová, L., Stráníková, L. (2014). *České domy v Chorvatsku: krajanské kulturní stánky*. Daruvar: Jednota.
- Stráníková, L. (2018). Česká beseda Daruvar a počátky českého školství v Chorvatsku. *Přehled kulturních a historických, literárních a školních otázek*, 2018(36): 23-31.



Self-Learning of Academic Staff as an Element of Lifelong Education: the Role of Assessment Competence

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Abstract

The purpose of the study is to substantiate the idea on enhancing the role of assessment competence of academic staff in the context of new tasks of universities in light of knowledge economy requirements. Significant country differences and universities' own approaches to the professional growth of academic staff dictate the need to find ways to stimulate sustainable self-development of competencies, including assessment, reflection, motivation and mutual assessment in the student-teacher system. This study is an attempt to identify the role of assessment competence in the steady growth of teachers' professionalism, taking into account these aspects. The analysis of the survey result allowed us to outline the suitable forms of systematic retraining and sustainable self-education of academic personnel for the development of professional, including appraisal, competence in a rapidly changing competitive educational environment.

Keywords: academic staff, assessment competence, sustainable self-development, combined data.

Introduction

Today, lifelong learning is necessary for every teacher who wants to stay in demand, theoretically and practically prepared (Building a high-quality teaching profession, 2011). A person needs to acquire new knowledge and skills. Educating people requires a broader diffusion of a new model of education and training — the concept of lifelong learning. Lifelong learning has the following characteristics (European Forum - EFFECT, 2018): (1) in the center of learning - creativity, practice, analysis and synthesis of knowledge; (2) teachers direct students to sources of information; (3) in the process of learning follow individual plans; (4) teachers themselves learn throughout life, expanding their professional knowledge and skills; (5) training is carried out in the process of implementation of some activity; (6) learning takes place in groups and people learn from each other; (7) assessment of the results is carried out to develop further strategies and possible areas of study; (8) people have access to lifelong learning (Lifelong Learning in the Global Knowledge Economy, 2003). As can be seen from this list, all conditions directly take place in the process of developing the competencies of university teachers.

Analysis of recent studies (Promotion of Teacher effectiveness. Annotated Bibliography, 2015) shows that the majority of university teachers use traditional systems of control and evaluation of students learning activities, experiencing difficulties in developing, adapting to the educational process innovative assessment tools aimed at assessing students' individual achievements and developed professional competencies.

Object of study are the competent activities of a university teacher in teaching and assessing students' knowledge as the result of joint efforts. Subject of research is (self) training of teachers for the development of assessment competence in the educational process of the university. The hypothesis of the research was made by the assumption that the proper preparation of the teacher for competent participation in the assessment activity will be successful if necessity of constructing an incentive mechanism for the university teacher education focused on developing their methodological and evaluation competence is justified. Various similar approaches have been proposed in (Kellaghan & Greaney, 2001; Gallagher & al., 2011).

Competency and competence. According to the definition variant presented in the EEF Glossary of Terms (Glossary of Labor Market ..., 1997), competency is defined as: “the ability to do something well or effectively,

compliance with the requirements for employment, the ability to perform special labor functions". It also notes that "... the term competence is used in the same meanings. Competence used in descriptive terms "(ibid., p.63). Historically, evaluation in higher education has served several roles (Postlethwaite & Kellaghan, 2008): the motive and result of educational activities; monitoring or ensuring accountability in the educational system; professional selection; certification confirming the completion of a standard course of study; competitive selection for admission to the school; improving the quality of education by diagnosing its results, etc. Among them, the role of evaluation as a means of improving the quality of education, as well as a method of reflexive control, is of particular importance for university teachers. In this article, by the example of the competence of test assessment, only those means of evaluating students' educational achievements, which, because of their effectiveness in improving the quality of educational activities, are most often used in university practice, will be considered.

The development of the assessment competence of the academic staff of universities in line with the requirements of sustainable education is important for several reasons:

1. Assessment competence is interrelated with other professional competencies of university teachers: a fall back in one area retards the development of other abilities and skills (Romiszowski, 1999);
2. Expansion of additional and distance education, various forms of self-study and self-development, puts forward the task of developing a modern fund of effective evaluation tools congruent to innovative educational technologies, including e-learning (Guasch & al, 2010);
3. Along with, instead of traditional forms of advanced training and retraining of teachers in the form of courses, schools, internships, innovative methods of self-development and self-education using the potential of information media are becoming more relevant and in demand (Minota, 2011; Bawane & Spector, 2009).

Assessment competence in the system of requirements for teacher professional qualifications for leading universities invariably plays an important role. Thus, in the system for determining the quality of higher education in Australia (Training and Assessment Qualifications and Competencies, 2018) in the section AQTF Essential Standards for Registration, Standard 1, Element 1.4. It is stated that people who have the competences of training and assessment given by the quality committee can teach at the university and if the teacher is obliged to carry out the assessment of students, he (she) should have the following three competencies: (1) planning and organization of assessment; (2) assessment competence; (3) participate in the validation assessment.

A number of authors (Shadrikov, 2007; Isaeva, 2014) propose not only to classify the term "assessment competence" as an element of pedagogical culture, but to single out a separate competence and include "knowledge of the functions of pedagogical assessment; knowledge of the types of pedagogical assessment; knowledge of what is to be assessed in teaching activities; proficiency in pedagogical assessment methods; the ability to demonstrate these methods with specific examples; the ability to move from pedagogical assessment to self-assessment".

Our approach develops this interpretation, considering that the possession of objective assessment methods not only goes beyond methodological competence (Buiskool & al., 2010), but also involves the mastering of knowledge and skills of subject-oriented teachers's self-assessment of the current and final level of subject knowledge and skills (Gibbs & Coffey, 2004). It is in the case of full-fledged participation of teachers in such work that reflexive motivation of professional self-development can arise (Erault, 1995), when a teacher can not only quantify the final results of his efforts, but also make adjustments to the educational process based on the results of the assessment, as well as focus students on elimination of gaps in mastered knowledge and skills. Finally, possession of the evaluation competence, going beyond the pedagogical process, helps teachers to correctly navigate in innovative technologies of teaching and assessment (Bawane & Spector, 2009)

An objective assessment tool widely used at Azerbaijan universities is a test method of knowledge assessment (SECRA, 2018). Many teachers have considerable experience in developing subject tests, however, there is a tendency to not participate in the assessment process, which leads to difficulties in timely updating the test task bank, even if the program content has been significantly updated.

In addition to expanding the composition and content of professional competencies of academic staff (Guasch & al, 2010), the need for continuous development of the system of competencies emerges. In this system, an important role is played by the teacher's assessment competence, which, in addition to being able to adequately assess the success of student learning, as a result of including teaching efforts, allows evaluative judgments to be held about the professional success and performance of teachers. Some institutional forms of development of teaching competencies (such as advanced training institutions or summer schools) do not quite cope with the development objectives due to inertia of response to educational innovations (Buiskool & al., 2010).

A number of authors (Desimone, 2009; Johnstone & Soares, 2014) believe that to improve the methodological approaches to the study of the development of teachers' professional competence and its impact on the effectiveness of student learning, as well as to establish the factors of reflexive self-development, it is necessary to conduct versatile multi-dimensional studies in which to maximize the extraction of useful information from both teachers and students. Generations of students change more often than generations of teachers, so teachers' self-development should, in a methodological and evaluative way, be ahead of the change in the typology of students' needs and expectations (Trigwell & al, 1999; Wyatt, 2011). In our situational survey, only a limited range of questions is put, aimed mainly at illustrating the possibilities and prospects of making more comprehensive research in the field of the formation and continuous development of professional competencies of the academic staff.

For purpose of study, the data obtained in the course of two surveys were supplemented with indicators of administrative data from Differential salary system (DSS) (<http://muallim.unec.edu.az/az/otherRatings>, 17.07.2019) for the same teachers, including student assessments of the success of educational activities. The goal of involving both rating indicators and students' opinions in the process of analyzing data was to try to illuminate the reflexive component of teachers' self-assessment by taking into account student participation in the formation of the average success assessment of teachers' annual pedagogical activity. Such feedback in the system of assessing the dynamics of competence and the annual scientific and pedagogical activity is proposed in Azerbaijan for the first time.

Method

The solution of the tasks of study led to the choice of research methodology: analysis of scientific, methodological literature and policy documents, observation during training, questioning, ranking, data processing and modeling (Theory and Method in Higher Education Research, 2015).

The research methodology is based on the presentation of the activities for development of assessment competence through sets of variables characterizing the status, impact factors, conditions and results of efforts to develop this competence in a stable mode of continuous (self) education. These variables are expressed in the survey data received from the teachers themselves, as well as administrative information from the DSS system. The collected and ordered data are analyzed to study the nature of the distribution of values and identify the main groups, establish relationships and dependencies of input and resulting variables, taking into account certain conditions. The study consisted of two stages: 1) identification of the development needs of the assessment competence and 2) assessment of the level of mastery of the test technology after the course. In the process of training and research of participants of training, the role of assessment activity as a feedback of the pedagogical process and objective certification, as well as the value of test competence in a variety of promising forms of adult education are noted.

Research concept. The main idea of our approach is that the development of the assessment competence of teachers creates an opportunity not only to improve the assessment tools and procedures in existing practice, but also to recognize and evaluate the suitability of new innovative technologies in relation to a specific educational environment. In the course of the study, one of the possible mechanisms is established with the feedback of development self-reflection based on the correlation with the student assessment of the pedagogical activity of academic staff. The author in his study relies on well-known classical and modern works on systems and processes of evaluation in higher education (McClarty & Gaertner, 2015; Hendrik & Yael, 2009; Morcke & al, 2013). In our opinion, assessment plays the role of the control and correction function of the educational process

management system; therefore, the role of the competent participation of teachers in this process cannot be overestimated (Johnstone & Soares, 2014).

The research question and hypothesis.

1. Question: How does the propensity for self-education of teachers in the process of sustainable lifelong education, along with other factors, depend on the level of their assessment competence?
2. Hypothesis 1: Status indicators and elements of competition in the form of more or less active participation in DSS affect the motivation for self-development and the development of new tools for assessing students' achievements.
3. Hypothesis 2. The reflection of one's own competence can be assessed using student assessments of teachers' professional qualities in relation to the objective indicators of the results of student learning success.

Limitations. Our study consider academic assessment competence, related only test sample as assessment tool, and d'snt consider other education assessment tools, however it may be expanded in future. The survey of a limited contingent of teachers, listeners of the Summer School, illustrates the approaches to the formulation of the research problem stimulating role of formation the modern skills of educational assessment for purposes of sustainable reflexive self-development of academic staff. At the same time, the limitations of indicators and data does not allow for setting detailed analysis.

The source of data for the study was the following sets of information:

- a) a sample of administrative indicators (DSS),
- b) data from survey of participants of the summer school "Needs assessment for the development of attestation tools" (May 2019). The survey data (52 participants of the summer school - UNEC employees) were obtained in 2 stages: a) an initial study of the needs for the development of evaluation competence; b) assessment of the impact of training - measurement of level of growth of competencies.

Description of the data. 16 men (30.8%) and 36 women (69.2%) took part in the survey and analysis. According to the status of the main university employment, of the 52 respondents, 40.4% were ordinary teachers, 13.5% were heads of departments leading selective teaching, and finally, 46.2% were an initiative group of teachers who made up a group of volunteers of the movement for developing competencies and improving the quality of education. 69.2% of study participants have a doctorate degree, the remaining 30.8% have a master's degree or are applicants. The modal group consisted of mature teachers with work experience of 10 and 20 years (42.2%), the other two groups of 28.8% are young teachers with work experience up to 10 years and the older group with a teaching experience of over 20 years.

Data analysis. The SPSS data-base file contains 52 entries of 40 variable values related to:

- A) status; B) experience; C) development needs; D) preferences; E) returns (self-) learning; F) assessment of student performance; G) student's assessment of the teachers; H) teacher rating (F, G, H all in DSS).

Table 1. Descriptive Statistics (n=52)

	Minimum	Maximum	Mean	Std. Dev.
Pedagogical experience (years)	1	28	14.46	7.565
How many subjects did you take to prepare test items?	0	3	1.79	1.143
Annual teacher's score	6.544	41.370	14.25	6.186
Students' activity (for teachers' assessment)	.02	.71	.2878	.165
Students' success	59.669	99.419	89.67	9.55
Students' score (for teachers' assessment)	43.65	94.64	79.82	9.83
How do you feel to increase your knowledge in the field of higher education testing method? (%)				
1. Test Concept	5	100	42.94	25.479
2. Test items/sets planning	20	100	50.22	22.900
3. Test preparation	5	100	50.00	25.140
4. Application of tests	20	100	60.52	28.737

Teachers in their professional activities and development of competencies seek to gain recognition of three main stakeholders: students, administration and colleagues (professional community). Therefore, confirmation of the applicability of data from various sources on their competence is appropriate. Baseline data were tested for reliability and suitability for analysis. Estimates for this variable are obtained: Cronbach's Alpha is within acceptable limits (.293-.325 and .539-.595).

Findings

The largest group of respondents (36.5%) has experience in preparation test items for at least three academic subjects. A quarter of the surveyed (25%) accounted for tests in two subjects. 10 respondents (19.2%) made up only one subject in the previous period. The same number of respondents previously did not participate in the design of tests. Despite the fact that the majority had experience in writing tests on the subjects taught, however, this work was carried out relatively long ago (8-10 years ago), and due to the lack of standards and guidelines, could not meet the classical requirements as testing theory (Crocker L. & Algina J. 2010), and the current education test rules for measuring students' knowledge. The developed test kits did not pass the procedures of approbation and validation, therefore their compilers could not judge the effectiveness of the assessment of students' knowledge.

Table 2 shows that in the judgments of surveyed teachers, the need to develop evaluative competence is mentioned less often than need to develop experience in preparing teaching materials, as well as other indicators of knowledge acquired by students (25.5% versus 51% and 43.1%). This is logical, since the preparation of quality tests is possible only on the basis of improved teaching aids.

Table 2. Needs assessment

11. Which area would you like to expand your methodological experience? (multiple answers)	%
11.1. teaching materials	51.0
11.2. testing and implementation of tests	25.5
11.3. other measurement methods of knowledge	43.1
11.4. another	39.2

Note: Tables 2-6 retain the original numbering of questionnaires.

Approximately only one in four expected to expand the experience of drawing up and applying tests in the learning process, which indicates sufficient awareness, and judging by the answers to the next question about sufficient experience in test development (86% of respondents have been doing this in the last 5 years).

Table 3. Experience in preparation of teaching, methodical and evaluation materials

7. Preparation of teaching and methodical and evaluation materials in the last 5 years	%
7.1. textbook, handbook, practical, scientific article	78.0
7.2. syllabus, terminology, translation work	80.0
7.3. methodical instructions, concepts and presentations	68.0
7.4. tests (including their correction)	86.0
7.5. exam questions, cases.	40.0

At the end of the Summer School, most of the participants believed that their expectations were largely met and were surpassed, since many participants in the previous two such schools had the opportunity to compare the returns from participating in them. From table 4 it is clear that with the possibility of choosing several answers to the question "Which terms of summer school?", teachers of humanitarian subjects, as well as those with work experience of 10-19 years, had more expectations. But the majority considered it more important (43.5 - 66.7%) to put the training materials in order first, and this is quite logical, since high-quality sources (programs, manuals, manuals and instructions) are needed to compile quality tests (63.5%).

Table 4. Expanding methodological experience across gender, subject profile and experience

Gender	Teaching subjects profile	Pedagogical experience

11. Which terms of Summer school would you like to expand your methodological experience? (multiple answers)	male	female	general	speciality	humanity	up to 10 years	10-19 years	20 years and more
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
11.1. teaching materials	56.3	48.6	43.5	54.5	66.7	53.3	50.0	50.0
11.2. testing and implementation of tests	18.8	28.6	26.1	13.6	66.7	20.0	31.8	21.4
11.3. other knowledge measurement methods	37.5	45.7	43.5	45.5	33.3	66.7	27.3	42.9
11.4. another*	31.3	42.9	43.5	40.9	16.7	40.0	40.9	35.7

* author's comment: the proposal to include other issues in the summer school programs.

Table 5 presents a comparison of the expectations of related groups from the summer school program activities. Increased interest in the development of evaluation competence in the format of test and other measures of student learning is more pronounced among female teachers than male teachers, and among young teachers with 10 years of experience, there is some skepticism about the test technology compared to its alternatives (20 % versus 66.7%). In addition, there are significantly more expectations (every two of three) of the development of test competence among humanities teachers than among general professional and special education teachers. The latter, in their answers, explain this by the laboriousness of mastering test technology and developing test kits in the absence of any incentives.

Table 5. Expectations across the gender, subject profile and experience

5. How come your expectations from the summer school program?	gender		Teaching subjects profile			Pedagogical experience		
	male	female	general	speciali- zation	humanity	up to 10 years	10-19 years	20 years & more
	%	%	%	%	%	%	%	%
1. Preparation of syllabus	50.0	75.0	60.9	72.7	71.4	53.3	72.7	73.3
2. Preparation of auxiliary means	25.0	33.3	30.4	31.8	28.6	26.7	27.3	40.0
3. Preparation of tests	75.0	58.3	60.9	68.2	57.1	66.7	50.0	80.0
4. The benefits of the Summer School	81.3	88.9	82.6	90.9	85.7	86.7	90.9	80.0

As can be seen from the table 6 presented on average self-assessments of the growth of the test competence level, on average, the highest increment of knowledge and mastered skills was observed in the technologies used in testing (55.9%). A noticeable increment is observed in other areas of the test technology (42-49%).

Table 6. Preferred Communication

8. Which communication format do you prefer as a continuation of testing technology training? (multiple responses)	1. regular methodological service (%)	26.5
	2. a special site organizing (page, forum, blog, etc.) (%)	53.1
	3. organization of a regular methodological seminar (%)	55.1
	4. specialized training, organization of workshops (%)	69.4
	5. network communities (%)	24.5

It is clear that according to table 6, all the preferences expressed by the teachers in the further form of communication for the sustainable continuation of the self-development of professional competence in the field of educational assessment can be implemented in the form of a professional network community.

Results

As a result of the frequency analysis of survey and administrative data, significant variables were identified for establishing pair wise relationships using the Correlation matrix, as well as regression modeling of the dependencies of the resulting variables.

Table 7 shows that there is a relationship between the level of assessment competence (Number of testing subjects) from the teaching experience and the position held: it is naturally higher for experienced and titled teachers. The annual teacher's score is weakly but positively related to the variables in lines 2, 3, 6, and 8, and is

not significantly related to the students' success (Students' success), as well as the Pedagogical experience. This provides the basis for conducting regression modeling.

Table 7. Correlation matrix

	1	2	3	4	5	6	7	8
1 Teaching subjects profile	1	.047	.268*	.088	-.076	.550**	.078	.221
2 Position	.047	1	.821**	.387**	.334**	.080	.059	.103
3 Pedagogical experience	.268*	.821**	1	.424**	.337**	.199	.001	.169
4 Number of testing subjects	.088	.387**	.424**	1	.245*	.039	.112	.163
5 Annual teacher's score	-.076	.334**	.337**	.245*	1	.261*	.016	.318*
6 Students' activity	.550**	.080	.199	.039	.261*	1	-.093	.598**
7 Students' success	.078	.059	.001	.112	.016	-.093	1	.038
8 Students' score (percent)	.221	.103	.169	.163	.318*	.598**	.038	1

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Let us evaluate the regression dependencies using SPSS mode: Automatic Linear Modeling (Information Criterion - Akaike Information Criterion Corrected (AICC), Model Selection Method- Forward Stepwise, Target -Annual teacher's score, Automatic Data Preparation- On). As a result of the calculations, we obtain the most suitable expression:

Table 8. Regression analysis

Model Summary ^b										
Change Statistics										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.337 ^a	.113	.096	5.882782	.113	6.401	1	50	.015	1.550

^a. Predictors: (Constant), Pedagogical experience (years)

^b. Dependent Variable: Annual teacher's score

Coefficients ^a						
Unstandardized Coefficients			Standardized Coefficients			
Model	B	Std. Error	Beta	t	Sig.	
1 (Constant)	10.264	1.773		5.787	.000	
Pedagogical experience	.275	.109	.337	2.530	.015	

^a. Dependent Variable: Annual teacher's score

Excluded Variables ^a						Collinearity Statistics
Model	Beta In	t	Sig.	Partial Correlation		Tolerance
1 Students' activity	.202 ^b	1.507	.138	.211		.960
How many subjects did you take to prepare test items?	.125 ^b	.846	.402	.120		.820
Position	.176 ^b	.749	.457	.106		.325
Students' success	.015 ^b	.114	.910	.016		1.000

^a. Dependent Variable: Annual teacher's score

^b. Predictors in the Model: (Constant), Pedagogical experience (years)

Thus, the relationship between the orientation of teachers towards more stable models of self-development and reflection on student loyalty in relation to the confirmed assessment competence of the teacher is confirmed in a general form. It follows that the more successful professional self-development of the academic staff as an element of lifelong education, (expressed in our case in a high position in DSS), in particular, is associated with the development of assessment competence, which is naturally reflected in student points given to their teachers. The aforesaid applies to experienced teachers with a degree and stable career to a greater extent than to their young colleagues, and can serve as a prototype of the lifelong model of professional self-development.

Discussion

From the answers to the question S7 " How did you participate in the development of teaching materials and assessment tools published last 5 years?", it can be seen that the majority of survey participants have been active for the last 5 years in the development of teaching materials, but because of none-systematic and episodicity of this work, it had little effect on the quality and learning outcomes of students, as well as on the growth of the methodological and evaluation competence of academic staff. Most likely, the development of competencies occurred due to the accumulation of teaching auditorial experience, rather than targeted training and retraining programs. Similar studies related to student reflection of teaching competence in various approaches are reviewed in studies (Mah & Ifenthaler, 2018; Leigh, 2010; Adel & Zitouni, 2017).

As can be seen from the correlation table between the student assessment and the teacher's annual total score in the DSS system, there is a noticeable dependence of the final grade on the average opinion of the students who have spoken about the teacher. The "students' success" indicator is significantly but weakly correlated with "Analysis of tests" (%) at the level of 0.257*. The indicator of relative "students' activity" (Share of student response about teachers competences) in evaluating their teachers also weakly correlates with the "annual teacher's score", apparently having a weak effect on the growth of the DSS rating of the teacher, who conducted training in this particular subject with this group of students. A stronger link (0.598 **) is found between the "students' activity" in the evaluation of their teachers, and the assessment itself (Students' score) in percentage terms. This means that there is a tendency: the more students evaluate a teacher, the more high a grade is given by them. Thus, a higher assessment of the teacher is a reflection of the recognition of his professional competence, which is also expressed in more active participation in the assessment of the teacher. Note that the ratio of students is selective depending on the profile of the subject (correlation -.550 **). Thus, the average grade for teachers in general subjects (77.2) is slightly lower than the average marks for teachers of special and humanitarian subjects (81.76 and 82.32).

Conclusion

The analysis and conclusions are made on the basis of data from the author's survey of the professional motivation of developing skills for designing and using objective test knowledge gauges for students. The study substantiates the important regulatory role of the development of professional assessment competence of a university teacher in the context of sustainable continuing education. As follows from the analysis (Yarmohammadian, 2011), universities should include continuous professional development of academic staff in their long-term strategies and consider pedagogical development as a systematic process with which academic staff interact throughout their careers.

Hypothesis 1 that status indicators (mainly position and pedagogical experience) and more active participation in the Differentiated Salary System (DSS) affect the motivation for self-development is confirmed in the preliminary approximation. Hypothesis 2 on the reflection of the teacher's own competence through student assessments of his professional qualities in relation to the objective indicators of the results of student learning success is confirmed as a trend, but is not detected as a pattern, requiring additional research beyond the scope of this work.

The possibility of continuing the study on the contingent of more than 700 academician with building models of relationship structure of variables, analysis of hidden factors and forecasting is being considered. It is also promising to study the dynamics of reflexive relationship by DSS indicators at 2015-2019 for such a contingent.

Recommendations

1. Develop and adopt a standard test tools for assessing the competence of the teaching staff of universities.
2. To qualify the work on the development of testing tools as a scientific and methodological project and include it in DSS system as an external incentive for the teacher's sustainable self-development in the field of assessment competence.
3. To recommend universities to stimulate the creation of specialized network communities with the union of teachers from different universities for continue exchange of latest achievements in the field of evaluation and development of assessment competence.

References

- Adel M., Zitouni F, (2017). Core Competencies of Academics from Students' Perspective. *International Conference on Sustainable Futures (ICSF)*. Applied Science University, Bahrain 2017.
- Bawane, J., Spector, J. (2009). Prioritization of online instructor roles: Implications for competency-based teacher education programs. *Distance Education*. 30(3), 383–397. doi:10.1080/01587910903236536
- Building a high-quality teaching profession: Lessons from around the world, (2011). Organisation for Economic Co-operation and Development. Paris, France.
- Buiskool, B., Broek, S., van Lakerveld, J., Zarifis, G., & Osborne, M. (2010). Contribution to the development of a reference framework of key competences for adult learning professionals. *European Commission, DG EAC*.
- Crocker L., Algina J. (2010) Introduction to the classical and modern theory of tests. 663pp,
- Desimone, L. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Education Researcher*. 38(3) 181-199.
- Erault, M. (1995). Schon shock: a case for reframing reflection in action. *Teachers and teaching*. 1995. (1) p.9–22.
- European Forum for Enhanced Collaboration in Teaching (EFFECT), Ten European Principles for the Enhancement of Learning and Teaching. (2018) <http://bit.ly/EFFECTprinciples> (accessed 21/02/2019).
- Gallagher, C., Rabinowitz, S., & Yeagley, P. (2011). Key considerations when measuring teacher effectiveness: A framework for validating teachers' professional practices. *San Francisco & Los Angeles: Assessment and Accountability Comprehensive Center*.
- Gibbs, G., Coffey, M., (2004). The impact of training university teachers on their teaching skills, their approach to teaching and the approach to learning of their students. *Active Learning in Higher Education*. 5 (1), p.87-100.
- Glossary of labour market terms and standard and curriculum development terms. (1997). European Education Foundation.
- Guasch, T., Alvarez, I., & Espasa, A. (2010). University teacher competencies in a virtual teaching/learning environment: Analysis of a teacher training experience. *Teaching and Teacher Education*, 26(2), 199–206. doi:10.1016/j.tate.2009.02.018,
- Hendrik, O., Yael, O., (2009). The Eight Key Competencies For Lifelong Learning: An Appropriate Framework Within Which To Develop The Competence Of Trainers In The Field Of European Youth Work Or Just Plain Politics? IKAB, September 2009.
- Isaeva, T. (2014), Evaluation Competence of a University Teacher: Content and Purposes. *High Education In Russiya*, № 10, 2014, 106-112.
- Johnstone, S., Soares, L. (2014). Principles for developing competency-based education programs. *Change: The Magazine of Higher Learning*, 46(2), 12– 19. doi:10.1080/00091383.2014.896705
- Kellaghan, Th., Greaney, V., (2001). Using assessment to improve the quality of education, *IIEP UNESCO*. 101p.
- Leigh, A. (2010). Estimating teacher effectiveness from two-year changes in students' test scores. *Economics of Education Review*, 29(3), 480–488.
- Lifelong Learning in the Global Knowledge Economy: Challenges for Developing Countries, (2003). *A World Bank Report*. 167pp.
- Little, A., Wolf, A. (1996). *Assessment in Transition: Learning, Monitoring and Selection in International Perspective*. Pergamon, Oxford.
- Mah, D-K., Ifenthaler, D. (2018). Students' perceptions toward academic competencies: The case of German first-year students, *Issues in Educational Research*, 28(1), 2018, 9-137
- McClarty, K., Gaertner, M. (2015). Measuring mastery: Best practices for assessing competency-based education. *Washington, DC: American Enterprise Institute*.
- Minota, M. (2011). Reflective teaching as self-directed professional development: Building practical or work-related knowledge. In T.Bates, A.Swennen & K.Jones (Eds.), *The professional development of teacher educators*. London, Routledge.

- Morcke, A., Dornan, T., Eika, B. (2013). Outcome (competency) based education: An exploration of its origins, theoretical basis, and empirical evidence. *Advances in Health Sciences Education: Theory and Practice*, 18(4), 851– 863.
- Postlethwaite, T., Kellaghan, Th.,(2008). National assessments of educational achievement. *Education Policy Series 9*. UNESCO, 40pp.
- Promotion the teacher effectiveness. Sources in Annotated Bibliography (2015). *LINCS. American Institutes for Research*, 80pp.
- Romiszowski, A., (1999). Designing instructional systems: Decision making in course planning and curriculum design. L.-N.Y., 1999. 416 p.
- Shadrikov, V.(2007). The basic competences of the pedagogical activity]. *Sibirskii uchitel'* [The Siberian teacher]. No. 6 (54), pp. 5-15.
- SECRA, 2018, *State Examination Center of the Republic of Azerbaijan*, <http://www.tqdk.gov.az/en/>
- Theory and Method in Higher Education Research (2015), volume 1-4, Jeroen Huisman J., Tight M. (eds), Emerald Group Publishing Limited, p. i. <https://doi.org/10.1108/S2056-375220150000001017>
- Training and Assessment Qualifications and Competencies (2018). Site of Federation University. Australia. URL: http://policy.ballarat.edu.au/tafe/teacher_qualifications_competence/ch01.php updated 24th October 2018.
- Trigwell, K., Prosser, M., Waterhouse, F., (1999). Relations Between Teachers' Approaches to Teaching and Students' Approaches to Learning. *Higher Education* 37, pp. 57-70. <https://bit.ly/2RNh9Qj> (accessed 02/03/2019)
- Wyatt, L. G. (2011). Nontraditional student engagement: increasing adult student success and retention. *The Journal of Continuing Higher Education*, 59(1), 10-20.
- Yarmohammadian M., (2011). Evaluation of quality of education in higher education based on Academic Quality Improvement Program (AQIP) Model. *Procedia Social and Behavioral Sciences*, WCES, 15, 2917–2922.



A few Aspects about the Scientific and Academic Research Ethics Legislation in Romania

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Abstract

Good conduct in research - development - innovation is ensured in accordance with relevant international and EU laws and the rules of ethics for research programs - development – innovation thereof. The application of the measures referred to above is the responsibility of the ethics committee belonging to the structures that run research, development and innovation, such as universities, research institutes etc. This paper presents the current provisions of the Romanian legislation on research ethics, formulating a set of proposals in order to improve the conduct in scientific research, technological development and innovation. It concerns, in particular, a better formulation of the definitions on deviations from the rules of ethics in scientific research, prevention and resolution of plagiarism facts, tasks of the bodies empowered by law to decide on ethical violations. Differences are noticed between deviations considered under the criminal law as crimes and those representing misbehaviors, formulating proposals on limitation periods for these facts, namely the lifting and removal of the sanctions. Also, provisions that are specified in law enforcement must be used of good conduct in research - development – innovation, too, the application of other laws, such as those relating to copyright, patents, industrial designs protection have to be made. Through concrete application of such provisions, there are some issues, like the lack of correlation with other regulations, insufficient definitions etc. This paper presents, also, some of the weaknesses of this legislation, formulating a set of proposals to improve conduct in scientific research, development and innovation.

Keywords: Scientific research, Ethics, Legislation

Introduction

It is well known that, in Romania, the conduct in scientific research, technological development and innovation is based on a set of rules of conduct and procedures for compliance, designated as such by the Law no.206 / 2004, as amended and supplemented by the Government Ordinance no.28 / 2011 and Law 1/2011 (National Education Law).



Compliance with these rules and procedures is mandatory for all categories of personnel engaged in research - development - innovation under Law 319-2003 and for other staff, in the public or private research receiving public funds - development - innovation. The rules of good conduct, and procedures designed to enforce them, are detailed in the Code of Professional Ethics, for the research and development personnel, provided by the Law no. 319/2003 concerning the Status of Research and Development Personnel.

Good conduct in research - development - innovation is ensured in accordance with relevant international and EU laws and the rules of ethics for research programs - development – innovation thereof. The application of the measures referred to above is the responsibility of the ethics committee belonging to the structures that run research, development and innovation, such as universities, research institutes etc.

For a certain category of authors of research - development – innovation works, such as executives of research - development – innovation institutes, universities, or people who occupy public positions, analyzing compliance with the rules of good conduct is the responsibility of the National Council of Ethics in Research, Development and Innovation (CNECSDTI), which operates under the coordination body of the Ministry of Education and Research.

Through concrete application of such provisions, there are some issues, like the lack of correlation with other regulations, insufficient definitions etc. This paper presents some of the weaknesses of this legislation, formulating a set of proposals to improve conduct in scientific research, development and innovation.

Rules of conduct in research, development and innovation, under current legislation include:

- rules of good conduct in public communication, publication, dissemination and popularization of science, including for the funding applications for projects submitted under the organized public funds;
- rules of good conduct for scientific work performance reporting;
- rules of good conduct in the assessment and institutional monitoring of research, development, monitoring and evaluation of research and development projects achieved by the actions of the National Plan for Research, Development and Innovation and assessment of individuals in order to obtain grant degrees titles, positions, prizes, awards, bonuses, attestations or certificated in research and development;
- rules of good conduct in leading positions in research and development;
- rules of good conduct regarding respect for human beings and dignity, avoiding animal suffering and protect and restore the natural environment and ecological balance.

Good Conduct research excludes:

- replacing results with false ones;
- deliberately distorted interpretation of the results and conclusions deformation;
- plagiarism results of other authors and publications;
- deliberately distorted presentation of the results of other researchers;
- incorrect or non-award of authorship of a work;
- introduction of false information in applications for grants or financing;
- non-disclosure of conflicts of interest;
- misappropriating research funds;
- non-registration and / or non-storage of results, and recording and / or incorrect storage of results;
- lack of information for the research team before the beginning of a project, concerning salary rights, liabilities, authors, rights to research results, financing sources and associations;
- lack of objectivity in assessment and breach of conditions privacy;
- repeated publishing or repeated financing of the same results as scientific novelty items.
- the concealment or the removal of unwanted results;



- production of artificial results and presenting them as experimental data, data obtained by calculations or numerical simulations on the computer, data or results obtained from analytical calculations or deductive reasoning;
- deliberate shortness, hindering or sabotaging research - development – innovation activities of other persons, including unjustified blocking access to areas of research - development - innovation, destruction or bad handling of experimental equipment, documents, computer programs, electronic data, organic or inorganic substances or living matter necessary for the conduct, performance, or completion of research - development – innovation activities of other persons;
- active participation in misconduct of others;
- the introduction of false information in applications for grants or funding, PhD coordination thesis, application files for research competitions or for occupying the positions in university teaching or research - development – innovation activities;
- non-disclosure of conflicts of interest in conducting or participating in assessments;
- assessment privacy violation;
- discrimination in assessments, based on age, ethnicity, gender, social origin, political or religious affiliation, sexual orientation or other types of discrimination with the exception of affirmative measures provided by law;
- obstructing the work of the ethics committee, a committee of analysis or CNECSDTI during the analysis of deviations from good practice in research - development - innovation;
- failure to implement the sanctions imposed by the ethics committee or the CNECSDTI;
- knowledge of misconducts made by others and non-notification of the ethics committee or CNECSDTI;
- abuse of authority in case of:
 - a) obtaining the authorship or co-author position of publications belonging to subordinates;
 - b) obtaining for himself, for the spouses, in-laws or relatives up to the third degree, including salaries, remunerations or other benefits from research - development – innovation projects led or coordinated by subordinates;
 - c) imposing to subordinated persons own theories, concepts or results.

Note that CNECSDTI has the power to apply to the shortcomings the following sanctions noted by the conduct in research - development - innovation:

- a) written warning;
- b) withdrawal and / or correct any published work made by violating the rules of good conduct;
- c) withdrawal of doctorate advisor certificate and / or habilitation certificate;
- d) withdrawal of doctorate;
- e) the withdrawal title university professor or research degree or demotion;
- f) dismissal from the management of the research - development - innovation institution;
- g) disciplinary withdrawal of the employment contract;
- h) prohibition access to public funding for research - development – innovation, for a specified period;
- i) suspension, for a period of time between 1 and 10 years, of the right of entry to a competition for senior management, guidance and control positions, or as a member of the competition committees-juries;
- j) removal of the persons concerned from the project team;
- k) stop financing the project, with mandatory return funds.

The law also provides that it is forbidden to occupy research - development – innovation positions by persons who are guilty of serious violations of conduct in research - development - innovation. Cancelling the contest for the position in research - development - innovation is mandatory and the work contract for the institution of research - development - innovation ceases according law, regardless of when was proved that a person has done serious violations of conduct in the field of research - development – innovation.



Method

A first reference criticism can be made to the definition of plagiarism which, by law, consists of: exposure in a work written or oral communication, including electronic, of certain texts, phrases, ideas, demonstrations, data, hypotheses, theories, results or extracts from works written scientific methods, including electronic, made by other authors without mentioning this, and without referring to the original sources;

Numerous complaints regarding the existence of elements of plagiarism in scientific works, including theses, they had the argument that "the reference to original sources" and citations, there have been mentioned but were not specified properly by inserting quotes, citations basement and so on.

The inclusion of public known figures in the list of authors could be an advantage in evaluating such works, but it will expose these individuals without their knowledge or consent, to the all penalties if it turns out that the work contained elements of plagiarism.

Also missing from the definition of plagiarism, we noticed terms like illustrations, drawings, and photographs. A frequent confusion in the wording complaints, made intentional or not, is between plagiarism and copied elements, treating them as plagiarized content items, even if the authors have stated that they have copied from the works listed in the bibliography. It should be stressed that the copied work is subject to the provisions of Law 64/1991 on Patents, Law 129/1992 on the Protection of Industrial Designs and Law 8/1996 on Copyright and related rights, while work plagiarized, so the copied elements without indicating the original sources, are subject to Law 286/2004, as amended and supplemented.

Discussions are controversial too, on the inclusion of self-plagiarism as a deviation from the rules of good conduct in research - development - innovation, especially when that self-plagiarism is punished like the plagiarism. The discussions converge to the idea that plagiarism should be excluded from the list of deviations, for which measures set out in the laws mentioned above, should be applied.

An improper definition of the Ordinance 28/2011 is related to falsification of results or data, as follows: "selective reporting or data, or the rejection of unwanted results, manipulation of representations or illustrations, or digital alteration experimental apparatus, to obtain the desired data, without reporting the alterations made", which has to be simplified and reconsidered.

Another critical discussion is within the scientific behave, in Romania, of law structures empowered to examine and to notify cases of plagiarism in scientific works of dignitaries or heads of universities and research institutes. The criticisms are directed primarily toward the National Council of Ethics in scientific research, technological development and innovation (CNECSDTI), suspected of political obedience in its analyses and decisions. The proposed solutions, such as, for example, the abolition CNECSDTI, are against relevant basic rights, because the decisions of local ethics committees could no longer benefit from challenging on appeal to a higher commission. The lively critical discussion aimed at resolving allegations of plagiarism elements existing in doctoral theses belonging to persons who occupy public office dignities such as ministers or senators and deputies of the Romanian Parliament. Note that in all cases brought before them, doctoral theses were sustained and validated many years before such persons to promote public dignity, indicating serious questions about the honesty and principled allegations. It can be inferred that many such complaints are a matter of political fights, detached from the academy. It is a common practice that complaints of plagiarism on the scientific work developed by people in leadership positions, to be supported by intense media campaigns, formulating anticipated sentences and demanding the penalties, exercising pressure on CNECSDTI with the clear intent to influence its objectivity.



It is debatable the proposition that resolving such complaints should remain at the level of universities with PhD graduate schools for those PhD diplomas because these universities would be placed in both position as players and arbiters.

May be subject to criticism and some formulations of Law 206/2004, respectively GO 28/2011, whereby some sanctions against persons who violated rules of conduct remain imprescriptible, generating further consequences for the whole activity, regardless of their performance and conduct.

For example, such persons are prohibited without specifying a period, for the positions of research and development, cancellation of competitions held for such a post, withdrawal didactic titles, the quality of doctoral supervisor, the title of doctor, etc.

There were also cases in which a list of authors of scientific papers suspected of plagiarism which included notorious people without them knowing it or to give consent.

It is noted that by such rules are protecting and even encouraging denouncement because on the legislation who does not provide any action against those who abuse of such provisions deliberately denigrating the work of certain authors.

Another criticism in the current legislation is the fact that the authors' names which detects cases of irregularities remain confidential, while the name of complainants came to the attention of the research units, harming their image and the careers of the applicants, even if the finally proves their innocence. Moreover, the legislation does not provide information about the content or claims to the claimed people and about the decisions of the ethics commissions.

With reference to authorized national structures to address violations of the rules of good conduct in research - development - innovation, there is a frequent confusion between CNECSDTI powers and those of the Board of Ethics and Management in Universities (CEMU). It should be stipulated that CEMU is also a structure of MECS introduced by Law 1/2011, the National Education Law, which has the next missions:

- monitoring the implementation of academic ethics policies in the system of higher education;
- auditing the ethics committees of universities and an annual report on the ethics in universities (public relation);
- elaboration and publication of a reference code of ethics and deontology in universities (public document);
- arbitration of disputes, based on principles and procedures developed by the National Education Law no.1/ 2011.

It is clearly presented that the duties of CNECSDTI and those of CEMU are complementary and not superimposed. The confusion between those tasks lead to the misdirection of complaints, induce a high volume of correspondence with the authors of referrals and increase the decision time of national organizations. Given all this, it is clear that legislation on ethics in scientific research, technological development and innovation must be reviewed and improved.

Findings

We consider useful to include in legislation governing good conduct in research, development and innovation to the following rules:



- 1) The Code of Ethics and Professional Deontology for research, development and innovation, provided by Law 319/2003, has to be prepared by CNECSDTI, together with the Board of Ethics and Management in Universities (CEMU), structures of the Ministry of Education specified in Law 1/2011 (Education Law).
- 2) Among the deviations from the norms of good conduct there should be included:
 - a) Hiding or removing unwanted results;
 - b) Inclusion in the list of authors of scientific publications of one or more persons without their written consent.
- 3) Breach of the rules of good conduct, as far as it is not a penal fact, would be considered as misbehavior. Disciplinary responsibility of the person who committed such offense is prescribed within 3 years from the time it was committed.
- 4) The persons disciplined for breaching the rules of good conduct in research, development and innovation, to the extent that they have not committed other offenses, are entitled to request authority that sanctioned within 3 years application, removal and cancellation penalty.
- 5) The definition of plagiarism, the must contain 'illustrations, photographs, drawings '.
- 6) The contents of ethics complaints and reports have to be communicated to the persons claimed and within a reasonable time from submission of the notification.
- 7) The application of the provisions of Law 204/2006, as amended and supplemented does not preclude application of the provisions of Law No.64 / 1991 on Patents, Law 129/1992 on the Protection of Industrial Designs and copyright Law 8/1996 and related rights.

Results, Conclusions and Recommendations

The proposals made in this paper, based on long work of authors in compliance with the rules of good conduct in research, development and innovation, can give a response and can provide better solutions for the treatment and prevention by law of violation of these rules.

The authors had in mind to complement existing gaps in legislation, gaps which leave room to discrimination, damage to the image created, making discredits or compromising careers.

At the same time, the paper expanded the cases that constitute violations of the rules of good conduct in research, development and innovation, and, there is defined more completely the concept of "plagiarism", distinguished from the "copy".

The authors refer the matter to the difference between the deviations that constitute crimes under the criminal law and the ones representing misbehaviors, proposing deadlines for prescribing facts, namely the lifting and removal of the sanctions.

Finally, the paper indicated correlations in law enforcement that must be used in order to obtain good conduct in scientific research with application of other laws, such as those relating to copyright, patents, and industrial designs protection



References

- ROMANIA, (2006). Law 204/2006, regarding the Conduct in scientific research, technological development and innovation.
- ROMANIA, (2006). Government Ordinance no.28 / 2011 for amending Law 204/2006.
- ROMANIA, (2011). Law 1/2011, National Education Law.
- ROMANIA, (1991). Law 64/1991 on Patents.
- ROMANIA, (1992). Law 129/1992 on the Protection of Industrial Designs.
- ROMANIA, (1996). Law 8/1996 on Copyright and related rights.
- ROMANIA, (2003). Law 319/2003 regarding the Status of Research, Development, and Innovation Personnel.



EEA Mobilities – an Important Factor in the Process of Internationalization of Higher Education. Case Study for Romania

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Abstract

Improving transnational student and staff mobility is one of the key objectives of the Bologna process and a core principle of European integration in general. The objective of these mobilities is to strengthen the cooperation between European universities and EEA institutions mainly through the promotion of academic excellence and institutional improvement, reduction of mobility obstacles, and internationalization at home. This paper presents a case study about the first stage of the EEA Program. According to the Romanian applications, the estimated number of students (both incoming and outgoing) who will go in mobility during the academic year 2014-2015 was of 292 (out of a target of 365 until Sept 2016). The number of staff (both incoming and outgoing) estimated to go in mobility in the academic year 2014-2015 was of 219 (more than the target established which is of 140). We consider that the results have met the objectives set in the Call for this Measure. The main outcome for the beneficiaries was the exchange of knowledge that will positively impact the academic staff of both donor and partner institutions, the possibility to compare the curricula in the host university while staff training beneficiaries experienced new working methods, contribute to the development of new practices that allow internationalization at home to the benefit of the academic staff as well as of the students. The projects outputs are reflected by the specific achievements of mobility beneficiaries.

Keywords: Mobilities, EEA Grants, Internationalization

Introduction

This Financial Mechanism covers several funding programmes aiming at reducing the economic and social disparities in the European Economic Area and strengthening the bilateral relations between the EEA states and universities.



The program provides funding for the following measures:

1. Preparatory visits.
2. Mobility of students and staff
3. Inter-institutional cooperation.

The main beneficiaries of the program are universities holding an Erasmus Charter approved by the European Commission, and the partners will be similar institutions or training/stage organizations from Donor States. Within inter-institutional cooperation projects, universities can associate with universities, research institutes, companies, NGOs, both from Donor States and from other countries that benefit from the EEA Financial Mechanism (Beneficiary States).

Donor Program Partners (DPPs) are institutions situated in the three Donor States (Norway, Iceland and Liechtenstein), that will cooperate closely with the Program Operator- PO for the implementation of the Program.

- The Norwegian Centre for International Cooperation in Education (SIU)
SIU's area of competence includes a knowledge bank about internationalization of education in Norway, extensive experience in program management of a diverse range of programs, at the national, European and international levels and expertise in the development and promotion of bilateral and multilateral cooperation programmes funded by EU, Nordic countries and home ministries including the Foreign Ministry and Norad. Among others, SIU is in charge with the implementation of the Lifelong Learning Program in Norway.
The website address is www.siu.no
- Icelandic Research Center (RANNIS)
The Icelandic Centre for Research (RANNIS) supports research, technological development and innovation in Iceland, across all areas of science and the humanities. RANNIS reports to the Ministry of Education, Science and Culture and cooperates with the Icelandic Science and Technology Policy Council with the purpose of providing professional assistance in the preparation and implementation of the science and technology policy in Iceland.
The website address is www.rannis.is
- National Agency for International Education Affairs (AIBA) in Liechtenstein
Competencies of the Organisation : AIBA, Agency for International Education Affairs, has been appointed by the Ministry as the official Donor Program Partner in the Program Scholarship.
Among others, AIBA is in charge with the implementation of the Lifelong Learning Program in Liechtenstein.
The website address is <http://www.aiba.llv.li>

Method

The project proposal was to increase the number of mobilities between universities from Partner Countries and Donor States. The overall objective was to increase the incoming and outgoing flows of mobility for students and academics.

The specific objectives are: the increasing number of bilateral agreements, the extend of the fields mentioned in the bilateral agreements and the increase in quality regarding the student and teachers mobilities.

The results obtained until now in exchanging students and teachers between universities underlined the need to focus more on developing and strengthening the cooperation. The expected outcomes were focusing first on the



direct beneficiaries (students and academics that participated to the program), and then on indirect beneficiaries (other students and academics that will be in contact with the results, because of the dissemination process).

The final results are: an increased number of flows, an increased number of bilateral agreements and the extension of the fields mentioned in the bilateral agreement.

The role of the donor and partner universities will be based on an equal partnership that will be the basic principle in establishing a qualitative scheme of mobilities, offering courses in English and sustaining the social and academic integration of the incoming students and academics.

The projects outputs are reflected by the specific achievements of mobility beneficiaries. Staff teaching mobility had the possibility to interact with international students and experience new teaching and learning methods, and also was able to compare curricula in the host university and to access new didactic materials while staff training beneficiaries experienced new working methods.

The number of staff (both incoming and outgoing) estimated to go in mobility in the academic year 2014-2015 was 219 (more than the target established which was of 140).

Starting with 2013 a number of 15 Romanian universities participated in the program, in 2014 a number of 17 universities and in 2015, a total of 14 universities applied for PM (project mobility). For cooperation projects, during 2013, a number of two universities were approved, and, during 2014, a number of 6 universities. During 2015, a total of 4 universities received funds for inter-institutional cooperation projects action.

In the case of inter-institutional cooperation projects, the main findings may be outlined, as follows:

- Certain lack of reliable information and supporting documents of the common activities – communication with partners, management documentations etc.
- A certain superficiality in advertising the program and in the respect of visibility requirements – published handbook without the specific logo;
- A certain superficiality in supporting documents of the common activities – activity reports, dates / period, content, participants selection partially transparent and documented etc. considering common practices in project management;

In the case of mobility projects, similar findings with those of the previous year may be identified, as follows:

- Use of formalized procedures specific for Erasmus and lack of drafting EEA grants dedicated procedures (motivated by the lack of efficiency to draw distinct procedures for too few participants in mobility);
- A certain superficiality in advertising the programme and in the respect of visibility requirements;
- Low number of participants and mainly students benefiting of mobility (of course, due to the limited budget);
- A certain inconsistency of supporting documents – differences in terms of dates and duration;
- Brief synthesis of participants report with several issues not addressed.

The interviewed students and the staff have expressed positive feed-back about their mobility experience in the EEA member states.

Findings

Internationalization is an integral part of a continuous process of change in higher education and became an important priority for many countries, for university leaders and other higher education stakeholders. Internationalization takes many forms, including co-taught courses and degrees, massive open online courses (MOOCs), collaborative research projects and student exchanges.



One of the most commonly used definitions of internationalization of higher education was initially elaborated and subsequently adapted by Jane Knight and Hans de Wit and in its most recent iteration (Knight 2005) reads as follows: “the process of integrating an international, intercultural and/or global dimension into the goals, functions (teaching/learning, research, services) and delivery of higher education”. There is no recipe or one set of indicators for an internationalized university. Internationalization is a process of change which is tailored to meet the individual needs and interests of each higher education entity.

Consequently, there is no 'one size fits all' model of internationalization. Adopting a set of objectives and strategies which are 'in vogue' and for 'branding' purposes only negates the principle that each program, institution, or country needs to determine its individual approach to internationalization based on its own clearly articulated rationales, goals and expected outcomes. This recognizes that the internationalization process is driven by an assessment of individual needs and priorities. In the past few years, internationalization has grown in scope, scale and importance. Recent national and worldwide surveys of university internationalization priorities and rationales show that establishing an international profile or global standing is becoming more important than reaching international standards of excellence. Capacity building through international cooperation projects is being replaced by status building initiatives to gain world class recognition and higher rankings. Awarding two degrees from institutions located in different countries based on the workload for one diploma is being promoted through double degree programs. At the same time, there are countless examples of positive initiatives which illustrate how collaborative scholarship, cross border education exchange, and campus based internationalization strategies contribute to the development of individuals, institutions, nations, and the world at large. The benefits of internationalization are many and varied, so are potential risks and unintended consequences.

In that context, the expansion of academic mobility schemes is a hallmark of internationalization today. The impact of new forms of international academic mobility on the recognition and promotion of indigenous and diverse cultures is a subject that evokes strong positions. Many believe that modern information and communication technologies and the movement of people, ideas, and cultures across national boundaries presents new opportunities to promote one's culture to other countries and to enhance the fusion and hybridization of cultures. An important benefit is a greater understanding of cultural diversity and hopefully stronger intercultural appreciation and communications skills. Others contend that these same forces are eroding national cultural identities and that, instead of creating new hybrid cultures, indigenous cultures are being homogenized which in most cases means Westernized. Because education has traditionally been seen as a vehicle of acculturation, these arguments focus on the specifics of curriculum content, language of instruction (particularly the increase in English) and the teaching/learning process in international education.

The expectations with regard to the benefits of internationalization are continuously expanding, as is the range of activities carried out in the name of internationalization. At the same time, institutional, national and regional policies remain highly focused on only one aspect of the process – *mobility*. Such a singular focus can overshadow numerous other ways that internationalization can improve the quality of the different dimensions of higher education, including curriculum, research, campus life, management, the third mission, etc. Indeed, no matter how much international student mobility flows may increase in the future, it is unlikely that they will ever include all learners in higher education. Thus it is likely that the impact with the greatest potential impact lies with the 'other' aspects/activities that promote internationalization.

Results, Conclusions and Recommendations

The development of all academic mobility schemes is a fact of internationalization today. A few years ago, anyone could anticipate that the international academic mobility both for students, as well as scholars and



professors, would have the potential to grow into a highly competitive multi-million dollar international recruitment business. Many countries are investing a lot in major marketing campaigns to attract the best and brightest talents to study and work in their academic institutions, in order to provide the 'brain power' for innovation and research projects. All aspects and challenges belonging to academic and research mobilities should not be quite underestimated. Nor should the real potential benefits also. It is almost impossible to ignore the contemporary race for recruiting international students and academic staff members for 'brain (work) power' and for 'income (profit) generation'.

The original goal of helping developing country students to complete a degree in another country and then return home to contribute to national development is fading fast as nations compete in the 21st century brain race.

It is impossible to predict, like in a crystal ball, the academic future, but if the processes of the last decade are clear harbingers of the short time future, it is very likely that the competition for the brightest of worldwide students and academics will obviously increase, bringing with it the benefits for some receiving countries and higher education institutions and major losses for the others. Perhaps all technology advances and social networking issues will bring some new opportunities for brain sharing, that will mitigate somehow the overall effect of winners and losers, but the current obsession with global rankings and the economic competitiveness agenda suggest otherwise. For better or worse, the great brain race through student mobility is likely to be in active mode for a while.

A recent trend has been the establishment of collaborative programs between institutions in different countries that lead to double (or multiple degrees) and in some cases joint degrees -although the latter face steep legal constraints.

All joint programs are mostly intended to provide a higher international and comparative academic experience for students and to improve their employment opportunities. But, with all these new ideas, questionable adaptations and unintended consequences are also appearing. For instance, in some cases, double degrees can be nothing more than double counting one set of course credits. Situations exist where two/three credentials (one from each participating institution) are conferred for little more than the work capacity required for one degree. While it may be very attractive for students (and potential employees) to have two degrees from institutions in two different countries, the situation can be described as the thin edge of academic fraud if course requirements for two full degrees are not completed or differentiated learning outcomes not achieved. It is important to point out that there are many excellent and innovative joint and double degree programs being offered, but one of the unanticipated consequences is the potential misuse or abuse of degree granting and recognition protocols.

The mobility activities between the universities, research institutes, companies, NGOs, both from Donor States (Norway, Iceland and Liechtenstein) and from other countries that benefit from the EEA Financial Mechanism (Beneficiary States) will contribute to the intensification of higher education student and staff mobility.

Direct beneficiaries of the project are expected to be the students and the teachers involved in the project.

The role of the Donor Partner is to cooperate and support the beneficiaries and the activities agreed and to respect the principles and conditions of the EEA Grants guidelines. In the same time, the partner is expected to provide insights on the benchmarks of quality mobility in higher education and coordinate the exchange of good practices inside the project

Thus, they will allow the training of both academic and administrative staff members in order to increase their performance level. They will also provide the appropriate framework for the modernization and internationalization of academic activities through experience and best practices exchanges that can be then implemented in partner institutions.



Mobility activities will also contribute to the improvement and development of academic programs, in terms of curricular area and of structure and content of the existing courses.

The professional development of the staff through inter-institutional mobility activities will lead to the development of new practices that allow internationalization at home to the benefit of the academic staff as well as of the students.

The main benefit for all the beneficiaries was, of course, the exchange of real knowledge, that will surely have a positive impact on the academic environment of both donor and partner institutions, as well as scientific benefits for all students and academics participating in this program.

The donor and partner institutions must insure the mandatory infrastructure for the project.

The project strengthened the collaboration between the institutions and encouraged the further development of new joint academic and research programs.

The partnerships will develop in further cooperation in research projects and common research articles.

The project activities will continue within another European financial scheme, ERASMUS+ or research projects (national or international).

The project's outcomes: a. for students: personal fulfillment, international competence, academic fulfillment in terms of progression, employment, international alumni, language competence; b. for staff: career advancement, language competence, collaborative research, curriculum development; c. for universities: international profile, quality enhancement.

The project will generate new and improved content of courses/case studies, full recognition of the study periods in Donor State and will facilitate the transfer of knowledge and expertise between partners.

On long term, the mobility project will assist the design of a platform for future scientific collaboration between partners and also a coherent strategy for addressing the sustainable quality in higher education, with impact on national level in Romania.

References

SEE. (2015) SEE final narrative reports for mobility projects, Bucharest, 2015.

www.see-burse.ro.

www.asistentasee.fonduri-ue.ro.

www.eeagrants.org.

<http://www.see-burse.ro>.

Knight, J. (2005). An internationalization model: Responding to new realities and challenges. In H. de Wit, I. C. Jaramillo, J. Gacel-Avila, & J. Knight (Eds.), *Higher education in Latin America: The international dimension* (pp. 1–38). Washington, DC: World Bank.

Knight, J. (2008). *Higher Education in Turmoil, The Changing World of Internationalization, Global Perspectives on Higher Education*, vol. 13, Sense Publishers, 2008.

Knight, J. (2009). *Internationalization of education*, Higher and Adult Education in OISE (Ontario Institute for Studies in Education), University of Toronto.



Smart Utilities for Smart Cities

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Abstract

The exploding growth of urban areas is a great challenge but also great opportunity to develop technologies and services which will change profoundly the way we see and perceive our society. Fortunately the exponential improvement in the fields of electronics, telecommunication and information technologies versus the production cost, we are able to solve this challenges and complexities of audacious leap of urban areas. The article is proposing a solution through integrated utilities solutions, to the challenges and complexities that come with large networks of utilities such as telecommunication, smart grid and water utilities in order to have economical, reliable and sustainable services. Over the few decades it is expected to millions of distributed energy production, storage and management systems that will be equipped with autonomous intelligence and automation to optimize economy, sustainability, reliability and security of the urban utilities. Our scope is to find through our research a way to erode many of the functional and organization barriers which exist between utilities companies and customers. A main issue in this relationship is that customers have no control over consumption except turning on or off the devices and no opportunity to fully generate locally their utilities. This has started to improve at the same time an intense focus on actionable intelligence, smart metering and smart grid. Utilities are following the wave of changes driven by the deregulation and privatization of renewable energy, raising industry sector and by the public consciousness of sustainability. We are currently entering a time in human history in which data and intelligence are becoming the key for long-term success. We propose a practical vision, basically a reengineering across all utilities systems for business and housing with continuity, reliability and safely.

Keywords: Integrated Utilities, Smart Grid, Information Technologies,

Introduction

Utilities are following the wave of changes driven by the deregulation and privatization of renewable energy, raising industry sector and by the public consciousness of sustainability. We are currently entering a time in human history in which data and intelligence are becoming the key for long-term success.



Our scope is to find through our research a way to erode many of the functional and organization barriers which exist between utilities companies and customers. A main issue in this relationship is that customers have no control over consumption except turning on or off of the devices and no opportunity to fully generate locally their utilities. This has started to improve at the same time an intense focus on actionable intelligence, smart metering and smart grid.

We propose a practical vision, basically a reengineering across all utilities systems for business and housing with continuity, reliability and safely.

First step will be to redefine the data-driven value chain. Understanding the chain is the key point to transform from utility to smart utility.



Figure 1. One direction data-driven flow chain

Till now the flow was one way and was clearly defined and delimited by functions. The first link between “Utilities Source or Generation” and “Trading” is the most important, it has the biggest impact in the price of utilities. This comes from the fact that the biggest margin from the utilities price is made from the cost of generation that is composed from cost of primary energy source (ex: gas, water price, coal, etc.), investment in the generation plant/installation and cost of maintenance and personnel. None of the less the price is dictated by trading and the well-known market rules of offer and request. Third element of the chain is the transmission system that has a smaller impact on the price of utilities but has an important role being a critical infrastructure in the utilities system. Usually there is only one network operator and can impact the price on different percentages depending on the level of development and maintenance cost of the utility system.

Distribution has the smallest percentage in utilities due to the fact that there are only maintenance activities and does not require a lot of personal. In the one way chain the link between customer and retailer (utilities provider) is very rigid. The customer is most of the time captive and has no alternative to try and reduce costs of his bill or there are no feasible solutions, being forced by contract to assume a certain quantity of energy to consume, even if the household has alternate energy sources.

The key word for the one way chain is rigid and without caring about the real need of the customer with complex interconnected system between market, transmission and distribution while clearly ignoring the need of distributed energy sources at the distribution level. This one way flow should become multi directional and interoperable flow.

Having the two ways chain will impact the price of utilities as well as making the client the center of the system instead of the system itself.



Figure 2. Bidirectional data-driven flow chain with smart utilities

Considering that customer will have smart appliances and local generation he will be able either to isolate himself from the system, be a generation node making part of the distributed generation system, or he can be a small smart consumer.

We can say that the last 3 pieces of the chain can be taken as one – a smart consumer.

Retail link will have two ways negotiations. One with the traditional trading market and one with the smart consumers that will want to produce energy and inject it directly in the distribution system with a good price or just reduce the cost of the monthly bill. This way the traditional utility generation transmission and trading will be in direct competition, that will have a positive impact for all the customers – smart and traditional, this will decrease the price of utilities. This will also have a good impact for the environment knowing that at global level the big energy producers have approx. 60% of the energy made from non-sustainable forms of energy (coal, gas, diesel) and on the other hand household produce energy through clean energy sources (weather, wind, solar) in a percentage of over 80%.

Comparing the two chains the advantages are clearly on the two ways chain:

1. Increases the competitiveness on the trading market
2. High impact on the marginal cost of energy production
3. The client becomes the center of the system
4. Environment impact, increasing the renewable source in distributed energy sources.

In our research we started by thinking about the customer that could be a commercial or civil, that would be able to consume and produce. It is well known that there are multiple ways to reduce utilities costs through locally installed energy generation, smart appliances and smart metering.

Method

The demand is the first step and the one that will make us to take in consideration if a customer can implement this and if it feasible or not. This will be decided by analyzing:

- a. Energy consumption
- b. Cost of implementing smart utilities
- c. Cost of implementing other energy sources (if needed)

After analysis, if we have an eligible customer, smart metering will be implemented.



Figure 3. Smart metering interactions

The main smart metering interactions are done with SCADA System and CRM Billing. SCADA stands for supervisory control and data acquisition and is a system meant to be used in industrial environment for remote monitoring and control to operate over different industrial protocols and communication channels.

This will deliver to the CRM all the data to analyze in order to optimize energy price at trading market level and influence the generation and transmission.

GIS is a technology used in all activities that need to manipulate, analyze, generate and present all types of spatial a geographical data. In our context this will be used in an integrated system with the supervisory system in order to provide accurate data for the maintenance team to increase the continuity of distribution of utilities.

The supervisory system side will be used to track the stability of the system and the reliability of this. While having trouble with generation or management of the smart metering using GIS, an improbable interruption of utilities would be urgently treated by the distribution maintenance department. Depending on the issues this could affect the monthly bill or not.

Smart metering refers to electronic devices that interconnect with SCADA and records consumption of utilities: water, gas, electricity. This equipment will help the customer to improve his overview for consumption/production and cost of utilities. On the other side of Smart metering the CRM Billing will provide clear view of the consumption production maintenance actions, data analysis in order to provide quality data and permanent optimization of cost production and energy price, trough that closing the system flow by recalculating at each moment of time the demand and offer.

Following the proposed chain there will be the following repercussions on the business of utilities:

- Active control of distribution and low voltage grid becomes a necessity.
- Distribution and manage by its own the utilities demand.
- The energy market becomes more flexible and dynamic
- Big leap in battery technologies

All these changes in the utilities chain will be reflected in the IT and data management systems. They will start to have a critical role in the utilities infrastructure and will bring a bigger part of the business value.

The business model for the utilities companies will not change overnight but they will have to be open-minded towards interoperability between IT Systems and utilities infrastructures in order to increase agility and performance to satisfy basic requests like:

- Precise statements of utility usage similar to ones telecommunication and banks deliver



- Tuning consumption for home and workplace setting ambiance temperature in anticipation of arrival
- Flexible rates depending on season and time of day

Findings

We are focused on energy solutions, utility processes and solutions that range from smart metering, smart grid, energy trading, big data, CRM and billing in order to solve the utilities chain. We have an overview of the interactions that take place between these technology domains, by which applying principles of interoperability and real-time analysis and data management we will help home and business to reveal new levels of utilities network operational intelligence. Through this research we have established a model that will help go from utilities to smart utilities. For our study we considered two types of consumers and the corresponding smart appliances and smart meters.

The smart meters will be used in order to obtain:

- Accurate invoice that has a clear view over consumption generation
- Understanding the consumer behavior
- Faster and easy energy switching from gas to electricity based on the dynamic costs or switching from consumption to production energy and injecting it into the grid.
- Data from the customers to have innovative energy tariffs so the suppliers can create a schedule with cheap prices for off peak use.

The considered smart appliances are containing the following additional components and design modifications compared to a non-smart-utilities

- Network connection to the network protocol and network interface technology used
- Control systems needed to be built in the process
- Components to demand and response for energy storage (electricity, heat, cold), measurements circuits and sensors
- Modifications for the control system programming to take into account the changes relevant for the appliance for altering the electricity consumption pattern.
- Additional power supplies to handle the voltage and power requirements by the electronics in a waiting signal mode in order to comply with the eco-design networked standby requirements and other regulative requirements.

The appliances will need very limited additions of electronic circuitry and other components, this is because in most of the cases the smart appliances already have network communication. Therefore the impact of the additions to the products to provide connectivity and smart functionalities on resources and energy used for the production phase is assumed to be marginal and no further assumed.

This assumption is made on a medium household located in 4 season climate with smart utilities and alternative energy production and with the following energy consumption.

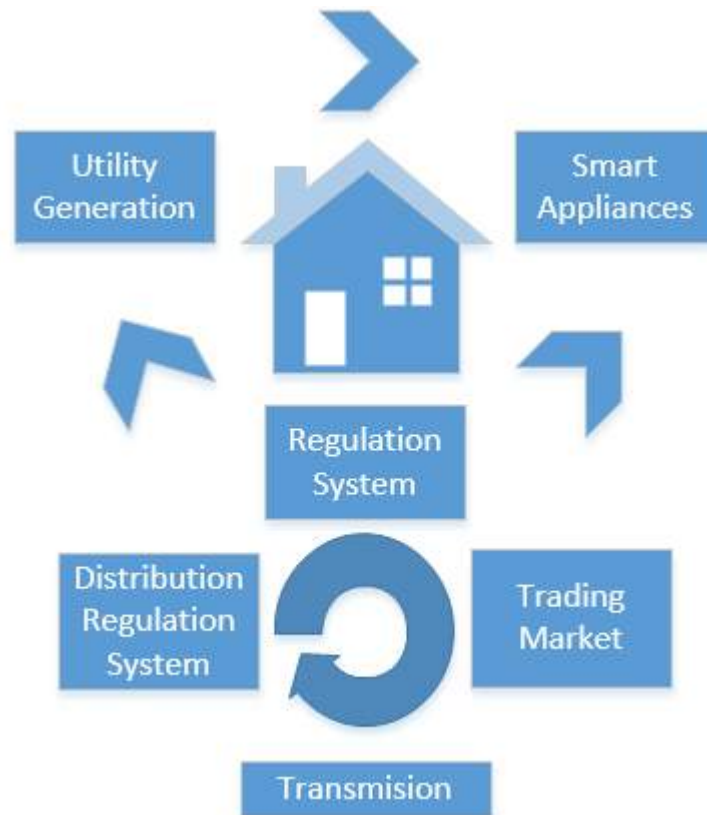


Figure 4. Regulation system modules

In Figure 4 are presented the main logical component of the Regulation system that has to equilibrate between demand from the transmission system and distribution system with distributed sources of energy. The regulator from the regulation system is a complex function that has to permanently calculate the constraints between transmission-generation and consumption-distributed generation.

The system will push the results once to the CRM billing system that is part of the regulation system and to the trading market in order to equilibrate the market in the demand offer side.

Results, Conclusions and Recommendations

All consumptions and power related issues are presented in next tables:

Table 1. Smart Utilities Components

Module Name	Components
Smart appliances	Dishwashers
	Washer-dryers
	Radiators
	Boilers
	Heat pump
	Air conditioner
Energy generation	Lightning
	Solar panel
	Windmill
Trading market	Heat pump
	Utility market



CRM Billing system	
Regulation system	The assembly of regulations systems that are based on laws and regulations in the utilities domains
Distribution system regulations:	Contains all the components to get the utilities from the transmission system to the consumer: physical (lines, stations, SCADA system)
Transmission	Made out of transport lines substations dispatch and energy management systems

Consumption higher limits are set on Table 2.

Table 2. Higher Energy Consumptions

Utility	Component	Average Consumption	Unit
Heating	Radiators	11800	kWh\year
	Heat pump	2200	kWh\year
Hot water	Boilers	4000	kWh\year
	Solar heater	0 (solar powered)	kWh\year
Cooling	Air conditioner	1100	kWh\year
	Heat pump	300	kWh\year
Other	Lightning	180	kWh\year
	Dishwashers	240	kWh\year
	Washer-dryers	280	kWh\year
	Other	100	kWh\year

The output of the model will be treated by the distribution control system and will become an entry for the CRM billing system.

The CRM will analyze this data and give input for the triple generation-transmission-trading and will ultimately optimize the utility price, balancing the demand for the offer.

Higher consumption limits are set on Table 3.

Table 3. Lower Energy Consumptions

Utility	Component	Average Consumption	Unit
Heating	Radiators	8800	kWh\year
	Heat pump	1700	kWh\year
Hot water	Boilers	1500	kWh\year
	Solar heater	0 (solar powered)	kWh\year
Cooling	Air conditioner	600	kWh\year
	Heat pump	200	kWh\year
Other	Lightning	180	kWh\year
	Dishwashers	240	kWh\year
	Washer-dryers	280	kWh\year



Other	100	kWh/year

Main consumptions details are set on Table 4.

Table 4. Main Power Consumer Details

Component	Input	UI	Output
Radiators	Power consumption	kWh	Ambient temperature
Heat pump	Power consumption	kWh	Ambient temperature
Boilers	Power consumption	kWh	Hot water temperature
Solar heater	None		
Air conditioner	Power consumption	kWh	Ambient temperature
Heat pump	Power consumption	kWh	Ambiental temperature
Lightning	Power consumption	kWh	Daylight savings
Dishwashers	Power consumption	kWh	Consumer habit
Washer-dryers	Power consumption	kWh	Consumer habit
Other	Power consumption	kWh	Consumer habit

The inputs and outputs of the transmission-generation-trading of energy are presented in Table 5.

Table 5. Main Power Consumer Outputs/Inputs

	Input for CRM	Output	Input for triplet
Utilities distribution	Electricity consumption	Peak Demand	Production threshold
	Gas consumption	Peak Demand	Delivery threshold
	Hot water	cm/h	Energy input
	Water	m/h	System parameters

We proposed a solution through out integrated utilities solutions, to the challenges and complexities that come with large networks of utilities such as telecommunication, smart grid and water utilities in order to have economical, reliable and sustainable services.

The CRM Billing will offer a clear view of the consumption production maintenance actions, data analysis in order to provide quality data and permanent optimization of cost production and energy price, through that closing the system flow by recalculating at each moment of time the demand and the offer.

This model is well suited for households located in temperate climate, with efficient energy use. It could be improved by taking in consideration more consumers and more utilities, for larger consuming units.

It is a proof of concept already applied in the utilities management of a small block of flats located in Timisoara, Romania, in order to optimize all power fluxes inside the consuming unit.

References

- J. C. Stephens, E. J. Wilson, T. R. Peterson, (2015). *Smart Grid (R)Evolution*, Cambridge University Press.
- M Rogobete, I Pintilie, V Scutaru, (2015). "A Means of Allocating MW Requirement in an Electrical Power System", *DAAAM International Scientific Book 2015*, Vol. 14, pp.229-310, ISSN 1726-9687, ISBN 978-3-902734-05-1, Vienna.
- Schamber, Kelsey L., (2010). *Smart Grid Technology and Consumer Call Center Readiness*.



- Dolga, L, Filipescu, H, Moldovan L., Alexa, F., Frigura-Iliasa, M., (2018). Computer Aided Design and Model of a Car Tire Pressure Module Antenna, *IEEE Radio and Antenna Days of the Indian Ocean (RADIO)*, Mauritius.
- Filipescu, H, Dolga, L, Moldovan L., Alexa, F., Frigura-Iliasa, M., (2018). Computer Aided Design and Model of a Remote Keyless Module Antenna”, *IEEE Radio and Antenna Days of the Indian Ocean (RADIO)*, Mauritius.



Key Economic Factors Affecting the Electricity Demand and Supply in Azerbaijan

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Abstract

Being an important utility service, electricity supply has virtually been the main driver in technological development in all countries including Azerbaijan. Affecting the everyday lives of people and operations of businesses and governments, any change in electricity supply can significantly affect the overall economic activities. The objective of this paper is to investigate and identify the key economic factors affecting the electricity demand and supply in Azerbaijan. Comparative economic analysis methods were used for electricity generation and consumption during this research. The key factors affecting electricity demand and supply were identified, and relevant recommendations were made accordingly.

Keywords: Electricity demand, electricity supply, power plant, electricity tariff, cost

Introduction

Electricity undoubtedly plays a crucial role in the daily lives of modern people in all countries including Azerbaijan. Electricity is not just a utility service for people. It is also one the main driver of countrywide and regional economic growth and their mutual integration, and any fluctuation in its supply can therefore seriously affect the overall economy and population. The countrywide massive blackout that occurred in July 2018 (TREND, 2018) showed that any risk to sustainable electricity supply can trigger harsh economic consequences.

The current structure of Azerbaijan's electricity sector is dominated by vertically integrated state-owned generation, transmission and distribution companies. Having 8 GW of installed generation capacity, Azerbaijan's power system possesses thermal (85%) and hydro (14%) power plants (Azerenerji, 2019; Ministry of Energy, 2019). Natural gas is used as the main fuel (99% of consumption) at thermal power plants (Asian Development Bank, 2017). The government owns and manages the electricity sector in Azerbaijan. Azerenerji OJSC is the vertically integrate state-owned generation, transmission and dispatch company. It oversees power generation (95% capacity-wise), transmission and dispatch functions (95%) across the country, with the exception of Nakhchivan Autonomous Republic (Azerenerji, 2019). The fossil fuel (natural gas and heavy fuel oil) based facilities of the state-owned Azerenerji OJSC dominate in the overall electricity generation mix (83%), followed by its hydro power facilities (7.9%), the generation by other public and private companies (9%), and renewable energy facilities of the State Agency on Alternative and Renewable Energy Resources (0.1%) (Ministry of Energy, 2019).

The above-mentioned description of the current electricity market in Azerbaijan indicates that the government has natural monopoly in the system, and there is no liberal electricity market. Thus, the electricity demand and supply in the country are more likely not driven by traditional market-based or demand & supply rules, but non-market factors. The objective of this paper is to investigate and identify the key economic factors affecting the electricity demand and supply in Azerbaijan through analysis of demand and supply data and estimation of actual electricity generation costs.

Method

This paper is based on the analysis of primary data and review of secondary data. The primary included the electricity generation and consumption data, and the data on electricity generation costs for various types of



power plants from State Statistics Committee and from studies on economic aspects of the electricity sector in Azerbaijan.

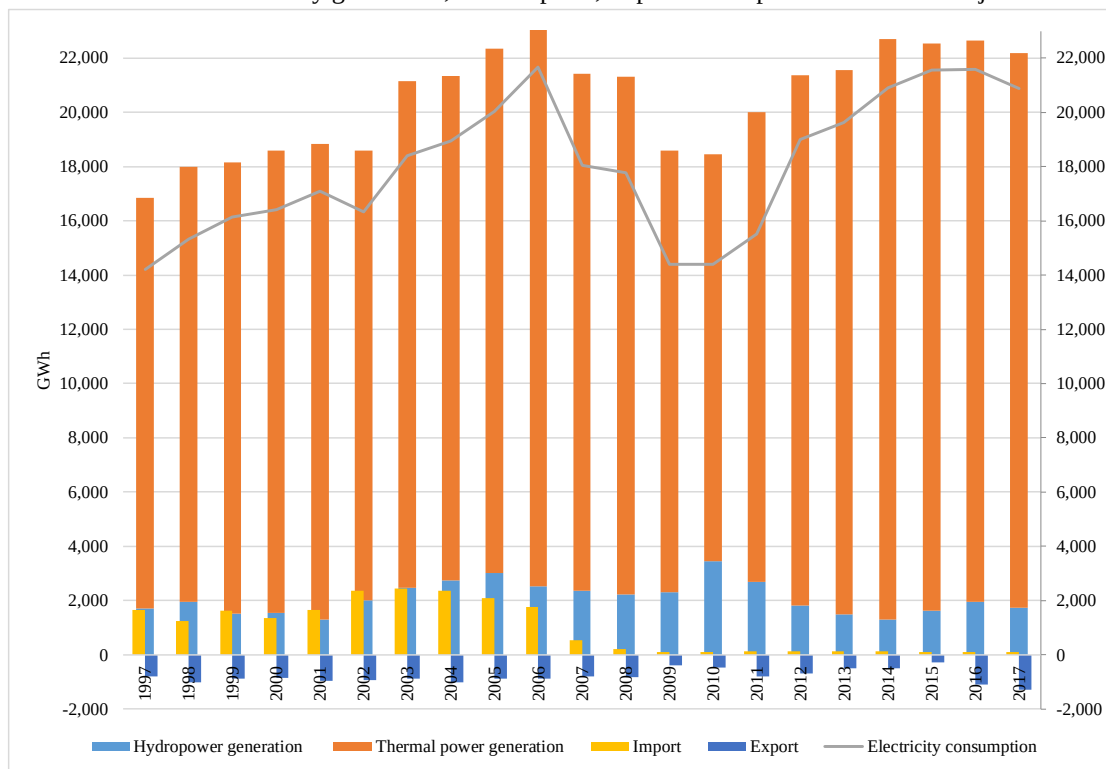
The secondary information included the Ministry of Energy and Azerenerji OJSC information, and the author's empirical research results on electricity demand and supply forecasts from his dissertation paper.

The primary data on demand and supply was analyzed by building various types of charts to trace their trends. The electricity generation costs of various power plants were aggregated, categorized by cost types, and analyzed in terms of unit cost of production to identify main cost drivers. The findings and results of primary and secondary data analysis and review were then examined to draw conclusions.

Findings

The electricity generation and consumption has almost the same change pattern in the period of 1997-2017, as depicted in the following chart.

Chart 1. Electricity generation, consumption, import and export trend in Azerbaijan

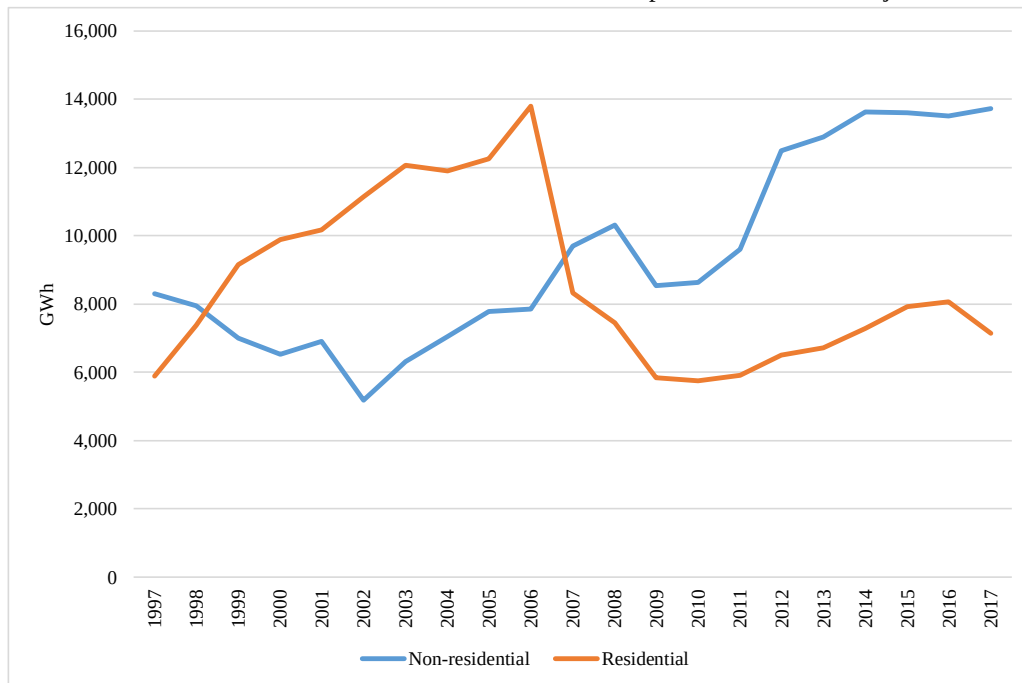


However, their trends can be grouped into several phases that are characterized with specific features. From 1990s until mid-2000s, the country was experiencing electricity shortage and even importing from other countries, as seen from the chart. With the government's large investments in construction and rehabilitation activities for electricity generation, the generation had significantly increased (Ministry of Energy). The generation and consumption had downward trend in 2008-2009 due to global economic recession, and then started increasing again.

To assess the electricity consumption patterns by various consumer groups, the general consumption trends and the time-of-day consumption patterns of residential and non-residential consumers were drawn via charts.

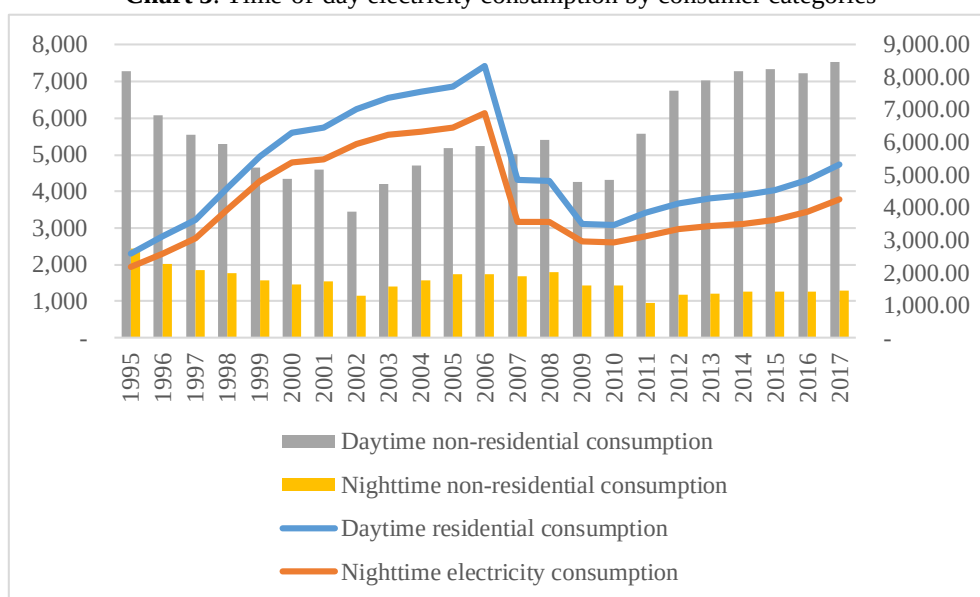


Chart 2. Residential and non-residential consumption trend in Azerbaijan



The electricity consumption pattern by residential and non-residential consumers has sharply changed since the country's independence in early 1990s (following the collapse of former Soviet Union.) As seen from the Chart 2, while the residential consumers had in average 60% share in the countrywide consumption by early 2000s, it later dropped to 40%, associated with significant industrial growth, improved metering and tariff increase.

Chart 3. Time-of-day electricity consumption by consumer categories



As seen from Chart 3 (F.Mammadov, 2019), there are high variance between day and night time consumption for both residential and non-residential consumers. Since consumption is closely interlinked with generation, the



results of the near-term electricity demand and supply forecasts from the author's dissertation paper were examined. These results suggest that the demand is projected to grow further from about 20 TWh in 2018 to 21.2 TWh in 2019, 22.3 TWh in 2020 and 23.4 TWh in 2021, while the supply is expected to reach 27.1 TWh, 27.8 TWh and 28.4 TWh in 2019, 2020 and 2021 accordingly (F.Mammadov, 2019).

Since consumption is closely interlinked with generation, such varied consumption pattern during day and night requires the examination of economics of electricity generation at power plants including analysis of their generation cost items. The relevant primary and secondary data were collected and aggregated (State Statistics Committee, 2018; Asian Development Bank, 2017; Vattenfall Power Consult, 2016).

Table 1. Electricity generation costs per power plant types

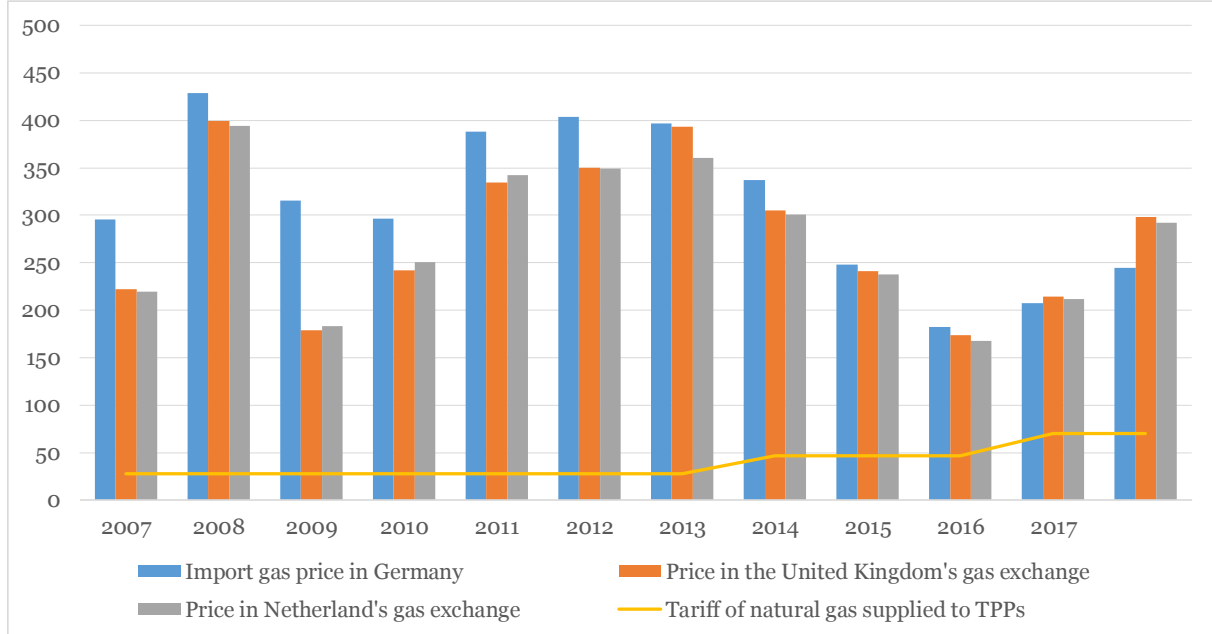
	Plant name	Fixed costs (thsd. AZN)	Variable costs (thsd. AZN)	Total costs (thsd. AZN)	Actual electricity generation for 2017 (GWh)
1	Azerbaijan TPP	41409	302939	344348	7,831,100.85
2	Shimal TPP	17962	53749	71711	2,070,424.65
3	Baku CHP	5876	11951	17826	366,329.06
4	Sumgayit TPP	21148	82949	104097	3,221,788.77
5	Janub TPP	81144	86522	167666	2,721,293.35
	<i>Total for steam boilers</i>	167538	538110	705648	16,750,225.30
1	Baku PP	5757	13453	19210	488,459.64
2	Sangachal PP	17775	35300	53075	1,169,592.17
3	Shaki PP	3890	7427	11317	208,318.50
4	Guba PP	5578	13573	19151	376,060.08
5	Khachmaz PP	15798	8933	24731	306,759.40
6	Astara PP	15180	7130	22311	195,288.43
	<i>Total for gas engine power plants</i>	63979	85816	149795	2,744,478.22
1	Migachevir HPP	12602	166	12768	629,958.43
2	Shamkir HPP	16085	58	16143	795,121.70
	<i>Total for large HPPs</i>	28688	224	28911	1,425,080.13
	<i>Total for Azerenerji's large power plants</i>	260205	624150	884354	20,919,783.65
1	Goychay HPP	524	4	529	2,708.72
2	Gusar HPP	388	0	388	186.20
3	Ismayilly-1 HPP	326	5	330	1,477.18
4	Shaki HPP	131	4	134	4,578.80
5	Mughan HPP	78	13	91	8,848.40
6	Balakan-1 HPP	65	0	65	1,038.97
7	Ismayilly-2 HPP	243	4	247	1,002.16
	<i>Total for small HPPs</i>	1754	29	1783	19,840.43
1	Babek Solar	2817.6	0	2817.6	31,313.00

The analysis of cost structure at power plants suggests that over 50% of the generation costs at thermal power plants are variable costs, and the variable costs of these power plants comprise mainly of fuel costs (F.Mammadov, 2019; Vattenfall Power Consult, 2016). As the thermal power plants are the main sources as mentioned in the Introduction section, fuel costs have material impact on the overall generation cost of electricity at thermal power plants, and the Government of Azerbaijan has set a privileged or subsidize tariff for the natural gas supplied to thermal power plants. The chart below illustrates the comparison between the natural gas tariff



for thermal power plants set by the government and the natural gas prices in various developed industries (Tariff Council; BP, 2019).

Chart 4. The price of natural gas supplied to TPPs in Azerbaijan vs. international market prices, USD/1000m³



Finally, based on the generation costs data, the author calculated the true cost recovery price levels¹ for power plants to assess whether power plants operate economically efficient at existing tariffs set by the government. The results of calculations are presented in the Table 2.

Table 2. True cost recovery unit generation costs per each power plant

	Plant name	Cost of 1 kWh electricity generation (AZN)	Calculated cost recovery tariff (AZN, VAT-exclusive)	Wholesale tariff set by the Government (AZN, VAT-exclusive)	Difference between the calculated cost recovery tariff and the tariff set by the Government (AZN)	Capacity factor ²
1	Azerbaijan TPP	0.0439719	0.0511	0.04831	-0.00277	0.38
2	Shimal TPP	0.0346360	0.0402	0.04831	0.00808	0.60
3	Baku CHP	0.0486621	0.0565	0.04831	-0.00821	0.40
4	Sumgayit TPP	0.0323102	0.0375	0.04831	0.01078	0.71
5	Janub TPP	0.0616125	0.0716	0.04831	-0.02325	0.40
	Total for steam boilers	167538	0.04213	0.0489	0.04831	
1	Baku PP	0.0393273	0.0457	0.04831	0.00263	0.54
2	Sangachal PP	0.0453792	0.0527	0.04831	-0.00440	0.45
3	Shaki PP	0.0543264	0.0631	0.04831	-0.01479	0.28

¹ It is the level of unit cost of generation at which all costs of the power plant are covered and the plant can also gain certain rate of return (i.e. surpass breakeven point).

² Secondary data from VPC report



4	Guba PP	0.0509245	0.0591	0.04831	-0.01084	0.41
5	Khachmaz PP	0.0806213	0.0936	0.04831	-0.04533	0.41
6	Astara PP	0.1142446	0.1327	0.04831	-0.08438	0.26
	Total for gas engine power plants	63979	0.0545804	0.0634	0.04831	
1	Migachevir HPP	0.0202682	0.0235	0.04831	0.02476	0.18
2	Shamkir HPP	0.0203024	0.0236	0.04831	0.02473	0.24
	Total for large HPPs	28688	0.0202873	0.0236	0.04831	
	Total for Azerenerji's large power plants	260205	0.0422736	0.0491	0.04831	
1	Goychay HPP	0.1951106	0.2266	0.04237	-0.18424	0.10
2	Gusar HPP	2.0810956	2.4171	0.04237	-2.37470	0.02
3	Ismayilly-1 HPP	0.2235814	0.2597	0.04237	-0.21730	0.11
4	Shaki HPP	0.0293308	0.0341	0.04237	0.00831	0.28
5	Mughan HPP	0.0102843	0.0119	0.04237	0.03043	0.25
6	Balakan-1 HPP	0.0626967	0.0728	0.04237	-0.03045	0.08
7	Ismayilly-2 HPP	0.2460286	0.2857	0.04237	-0.24337	0.07
	Total for small HPPs	1754	0.0898806	0.1044	0.04237	
1	Babek Solar	0.08998	0.10	0.0483051	-0.0562	0.22

The relevant calculation methodology for true cost recovery price levels is described below.

Azerenerji dominates in the electricity generation in Azerbaijan. Since the company is 100% owned by the Government, the electricity generation is under natural monopoly of the Government. As per the economic theory, natural monopolies are regulated by three groups of tools (Hooks, 1971):

- Direct determination of the prices of natural monopoly entities;
- Indirect regulation of prices by determining utter level of revenues or profits;
- Use of certain competition mechanisms to grant certain portion of production.

The regulation tools related to the second and third groups incorporate the indirect impact methods for existing prices. The first group tools covers the price setting based on the analysis of only costs. The Government of Azerbaijan prefers the first group tools in tariff setting process. This is due to the reason that the factors that might affect regulation in the second and third groups (i.e. fuel price, tax rates, wages) are relatively stable, and that the Government's firm goals on privatization initiatives are not sensible yet. It is therefore crucial for direct price determination for electricity in Azerbaijan. The key challenge in this area is that while it is plausible to determine the amounts of fixed, variable and total costs for certain quantity of generated electricity, it is troublesome to determine the rate of return that would meet the public interest and enable the perspective development. There are various approaches to handling this problem, however, these approaches use the cost of energy sales in calculation of electricity price. It is not possible to estimate the cost of energy sales without knowing price. In general, the widely used method for direct estimation of prices is the "cost plus" method. The concept of this method is the adding standard mark-up to costs. The general formula for calculation under this method is below:

$$\text{Price} = \frac{\text{total costs per unit of product}}{1 - \text{desired rate of return}}$$

The total costs per unit of product (TC) is calculated as below formula:



$$TC = VC + \frac{FC}{Q}$$

Where: VC- Amount of variable costs per unit of product, FC – amount of fixed costs, Q – quantity of product sale.

All parameters of these formulas can be calculated. However, it becomes challenging when it comes to the volume of production, because power plants do not always operate at full installed capacity. On the other hand, it is also important to surpass the critical point of production (i.e. breakeven point). It should be noted that the demand for electricity can be estimated quantitatively, and this demand is well considered during the construction of power plants. We can therefore assume that power plants will always have to generate electricity above the critical point of production. Thus, the key focus should be made to determination of desired rate of return – what would be the desired level of rate of return to be able to determine the unit cost of electricity?

As we noted above, two principles – ensuring public interest and perspective future development of the sector – should be taken into account during price setting for electricity. That is, prices should be affordable for consumers, while securing relevant rate of return that would enable future development of the sector. In this context, the interest rates on loans lent in national currency by commercial banks in Azerbaijan for 2017 (Central Bank of Azerbaijan) has been taken as desired rate of return. In other words, the profit from the operation of electricity generating company accumulated at certain period of time shall be equal to the book value of the electricity generating company, when discounting future interest return from the deposit in banks with amount equal the book value of the company. Since the price of this revenue is equal the interest rate on loan and since the Net Present Value (NPV) as per this interest rate is equal to the book value of the company, we can regard the interest rate as Internal Rate of Return (IRR) as well. All these relations are expressed in below formulas:

$$B_n = B_0(1 + r)^n \quad (1)$$

$$B_0 = \frac{B_n}{(1+r)^n} \quad (2)$$

$$B_n \frac{B_n}{(1+r)^n} - B_0 = NPV \quad (3)$$

Where:

B_0 – book value of the company (sum of main and working capital)

B_n – incremental value during n service years when the amount equal to the book value of the company is deposited in bank with r interest rate on deposits

r –loan interest rate

n – number of service years of the company

NPV – Net Present Value.

Formula (1) denotes the Future Value, formula (2) Discounted Future Value and formula (3) Net Present Value for investment projects. The rate of r making NPV equal to zero is called Internal Rate of Return (IRR). So, we can regard the interest rate of bank loan as an IRR in order to estimate electricity price, because the net present value equals to zero during future value is discounted with this rate.

$$B_n \frac{B_n}{(1+IRR)^n} - B_0 = 0 \quad (4)$$



Taken into account all above noted points, the formula for price determination can be expressed as below:

$$\text{Price} = \frac{\text{total costs per unit of product}}{1 - \text{loan interest rate}}$$

The interest rate on loans lent in national currency by Azerbaijani commercial banks in 2017 was taken as 13.9% (Central Bank of Azerbaijan Republic) during calculations.

Based on above data analysis and calculations, the followings findings were identified:

- The electricity supply in the country highly exceeds the demand, and will further exceed in near term future. This implies that the country's power system have excess capacity, and there is no economic rationale for building new generation capacities in near term future;
- The generation capacities are used at 30-40%. In other words, the average capacity utilization ratio is 30-40 which is extremely low for power plants;
- The existing wholesale tariff set by the government for power plants are not adequate to meet the true full cost recovery level of unit generation costs;
- The electricity consumption loads had high variances between day and night consumption patterns. High variance between day and night consumption patterns of consumers can be explained with the fact that consumer groups have single tariffs for day. This is why consumers are inclined to utilize more electricity during day time. Consumers have a single tariff that doesn't provide incentive for differentiated day and night consumption pattern which would ultimately optimize daily load patterns. On the other hand, with low capacity utilization ratios, Azerenerji's power plants have to incur same high variable and fixed costs during night time albeit the low demand. This certainly hampers cost optimization at large power plants
- Calculated true cost recovery unit prices show that the electricity generation capacities are not economically run in terms of cost efficiency, plant capacity utilization rate and electricity output, and that the unit cost of electricity generation at most power plants are not covered by the electricity generation tariff set by the Government. In other words, triggered by the lack of liberal electricity market and the Government's dominating market power and regulation, the country has excess electricity generation capacities beyond the required demand level and incompatible electricity demand and supply.

Results, Conclusions and Recommendations

The technical and economic findings of analysis and calculations point out certain factors that have high impact on electricity demand and supply in Azerbaijan:

- i. Inefficient use of electricity generation capacities – The current operation of power plants below the feasible capacity (i.e. at lower capacity factors) leads to new unnecessary new investments in the future for new capacities to meet growing demand. Instead, the optimal use of existing capacities would reduce their maintenance costs, and prevent unnecessary future investments. Application of unsubsidized fuel tariffs in association with optimal use of capacities would lead to more optimal energy consumption, and fuel savings could be exported to gain additional revenues.
- ii. Subsidized cost of fossil fuel (i.e. subsidized tariff of fuel by the Government) that is supplied to thermal power plants, which do not provide any incentive for cost efficiency in electricity generation and optimal use of generation capacities;
- iii. Lack of time of day type differentiated electricity tariffs that would provide incentives for electricity consumption by household and non-household consumers during both day and night, which would ultimately result in optimal electricity demand and supply.



These results suggest the following potential recommendations that could be considered to decrease the high variance between electricity demand and supply and achieve cost optimization for power plants:

- Application of time-of-day electricity, i.e. setting separate day and night tariffs for all residential and non-residential consumers – This would balance the variance between day and night time consumption loads, hence, enhance the generation loads of power plants;
- Mandatory requirement for power plants to operate at higher capacity utilization ratios (at least 50%), and gradually increase natural gas tariff supplied to thermal power plants – This would force power plants to optimize generation costs, whilst increasing electricity output. Moreover, the saved fuel from price increase could be exported to bring additional economic benefits for the country.

References

- Asian Development Bank (2017). *Azerbaijan: Cost Assessment Report. Preparing A Power Sector Financial Recovery Plan*, prepared by Corporate Solutions and DNV GL
- Azerenerji OJSC website information on power plants. <http://azerenerji.gov.az/index/page/12> (accessed in June 2019)
- BP Statistical Review of World Energy, 2019.
- Central Bank of Azerbaijan website. www.cbar.az (accessed in June 2019)
- F. Mammadov (2019). *Assessment of the Impact of Electricity Demand and Supply to Country's Economy* (PhD dissertation paper).
- Hooks D. (1971). *Monopoly Price Discrimination*. Hist. pol. Econ. Vol. 3, N 1.
<https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2019-full-report.pdf> (accessed in June 2019)
- Ilham Aliyev: *All those guilty in Mingachevir thermal power plant accident must be punished*. Posted on 04.07.2018. TREND NEWS Agency news. <https://en.trend.az/azerbaijan/politics/2924991.html> (accessed in June 2019)
- Ministry of Energy website information on power system. <http://minenergy.gov.az/index.php/en/33-energetika-slayders/82-electricity-energy> (accessed in June 2019)
- State Statistics Committee (2018). *Energy of Azerbaijan*. Statistical Yearbook
- Strategic Road Map for Development of Utility Services (electricity, heat energy, gas and water) in Azerbaijan Republic* (approved by the President of Azerbaijan Republic on 6 December 2016)
- Tariff Council website information on natural gas tariffs. <http://tariff.gov.az/?/az/content/66/>
- Vattenfall Power Consult (2016). *Diagnostics Report on Azerenerji OJSC*



Indicators of External Respiration and the Effectiveness of Underwater Phase in Swimming

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Abstract

Parameters of external respiration were searched, that determine the effectiveness of overcoming the underwater part of the distance and their relationship with the results of competitive activity. The subject of the research – 71 Latvian swimmers in the age group from 16 to 24 years. It's assumed that there is a high level of correlation between the selected parameters of respiratory system and swimming abilities of male and female swimmers. The data obtained shows that the competitive result (FINA points) correlates with the index of maximal expiratory pressure (p-value = 0, 16037*) and the index of maximal inspiratory pressure (p-value = 0, 4899*). It was determined that the high correlation between the selected indicators is observed in a group of female representatives between the index of maximal expiratory pressure and the competitive result (p-value= 0, 5631*). Statistically significant (p<0,05). As well as the inverse relationship was noticed between the index of maximal inspiratory pressure and the competitive result (p-value= 0,4594*) Statistically significant (p<0,05). In a group of men, the correlation between the index of maximal expiratory pressure and competitive result (p-value= 0, 0095). Statistically insignificant (p>0,05) However, the inverse relationship between the index of maximal inspiratory pressure and competitive result (p-value= 0,1211*) is statistically significant (p<0,05). The obtained results prove the existence of relationship between the speed of inhale and exhale and the high competitive result. Athletes with higher MEP (maximal expiratory pressure) are able to overcome the underwater parts of the distance more effectively that positively influences their competitive result (FINA points). The underwater distance and time strongly influenced the result in any style of swimming and for both genders.

Key words: Sport swimming, Underwater phase of the distance, Breathing parameters, Competitive result

Introduction

In a sport swimming, both in 25m pools and 50 pools, the rules (rule SW 5.3. International swimming federation) include opportunity to overcome 15 meters underwater, as after the start, and after every turn. A lot of researches all over the world are dedicated to the speed and efficiency of overcoming the underwater part. It's defined, that the speed sportsmen reach underwater is much higher than the speed of a "clear" swimming Videler (1993), Toussaint (2001), Lytle and Blansky (2000), Vorontsov и Rumjancev (2000), Hong, Y., Chu, P. K., (1999) and others.

The analysis of literature, and as well as of competitive activity shows that for overcoming of allowed 15 meters after the start and every turn, the technically right underwater wave moves are the necessity (Toussaint (2001), Videler (1993), Vorontsov and Rumyantsev (2000)), as well as the ability to fulfill lung with the necessary amount of air.



With increasing of swimming speed till 1,7 m/s , the inhale phase lasts in average of 0,3 seconds, the duration of exhale from 1,2 seconds to 1,5 seconds, at the same time the swimmer manages to inhale about 2-3 liters of air (Vikulov 2004) Cossor and Mason (2001) discovered significant correlations between the time of the start of 15 meters and the distance travelled under water after the turns in female and male groups of The Olympic Games 2000, in distances of 100 meters butterfly, backstroke, freestyle, 200 meters butterfly, backstroke, freestyle, breaststroke and the competitive result.

The authors stated that the underwater distance travelled after the start and every turn, had the greatest impact on a shown competitive result.

Formulation of research objectives. The aim of research – to identify the relationship of parameters and indicators of swimmer`s external breathing with an ability to overcome the underwater part efficiently, what in its turn influences the overall competitive result (FINA points).

Hypothesis: It`s assumed, that there is a high level of correlation between the selected parameters of the respiratory system and the ability to show high competitive results, due to the ability to overcome the underwater parts in a distance effectively.

Research methods and organization

The research involved 71 Latvian swimmer selected by the results of Latvian winter swimming championships 2017 to participate at the Baltic states swimming Championships, that was held in Riga from March 31 till April 1, 2017. According to the competition regulations, athletes were divided into two groups – Juniors: males and females at the age of 16-17 years and the “Open group” men and women from 18 years and older. The measurements took place at the end of competitive period. Using the standard measurement procedures, the height, weight and body weight were determined.

Spirometry: The method of studying external respiratory functions that includes the measurement of vital capacity of lungs and speed indicators of breathing.

The data collection was performed by the personnel and with the use of equipment (Micro medical USB with Spida program) of Riga Stradiņš University.

During the spirometry test the athlete is in a vertical position and he is given a spirometer, a mouthpiece connected to the breathing tube is inserted in athlete`s mouth, and a clip is put on his nose to avoid the air entering his nose during the test. A deep inhale is performed, after that the athlete exhales with a maximum power and as long as possible. After that the athlete is offered to make a deep forced inhale and a full forced exhale. At the same time the spirometer is measuring and recording the volume and speed of air, passing through the apparatus. The procedure is repeated two or three times to define the average value of characteristics.

The following characteristics of external respiratory were used in the research.

MEP – maximal expiratory pressure (cmH₂O)

EMRPD – maximal rate of pressure development in expiration (cmH₂O)

MIP - maximal inspiratory pressure (cmH₂O)

IMRPD - maximal rate of pressure development in inspiration (cmH₂O)

The analysis of competitive action (Videoanalyzer 50p fps HD video by Rein Haljand)

The level of competitive result was determined on the basis of the following indicators:

- The best result of the participant recorded at the Baltic States swimming championship that was held in Riga from March 31 till April 1, 2017 according to the FINA rules (2014). The time was measured electronically using an electronic system (OMEGA Ares 21), the competitive result was evaluated using FINA points (2017)
- For every experiment participant the video analysis was carried out, using Videoanalyzer 50p fps HD video by Rein Haljand. Data recorded: time of the start reaction, the time of passing separate parts of the distance, the time of turns and the finish. As well as the distance and time the swimmer spent underwater was recorded.

Mathematical statistics: The results of the research were processed using statistical analysis method and the RStudio version 1.2.0 (2017-04-26) program package. Evaluating the obtained data, the average group results of external



respiratory indicators and competitive results were calculated both for the group on the whole and separately for each gender. The evaluation of reliability of differences of average values was carried out using Shapiro.test ($p < 0,05$). To establish the relationship between the parameters of external respiratory and indicators of competitive results (FINA points 2017) the correlation coefficient was calculated.

Findings

The data obtained were processed and provided in the tables below. Table 1 shows the height-weight indicators of the group.

Table №1. Indicators of height and weight of participants of the Baltic States championships (Latvia)

Participants	Age, years	Height cm.	Weight, kg.	N
Juniors male	16-17	179 $\pm$ 5,8	67,75 $\pm$ 3,2	22
Juniors female	16-17	170,25 $\pm$ 6,1	59,51 $\pm$ 4,7	18
Adults, male	18-24	190,16 $\pm$ 8,7	83,83 $\pm$ 6,3	18
Adults, female	18-24	178 $\pm$ 4,3	67,4 $\pm$ 2,2	13

Table №2. Indicators of spirometry, of the Participants of the Baltic States swimming championships 2017(Latvia)

Adult female 18-24 years					Adult male 18-24 years			
27	195	168	181,5	MEP	252	207	257	50
33	199	166	182,5	MIP	180,5	154	207	53
758	2136	1378	1757	EMRPD	2743	1863	3623	1760
154	1107	953	1030	IMRPD	1202,5	1007	1398	392
Difference	Max	Min	Average	Parameters	Average	Min	Max	Difference
47	187	140	163,5	MEP	200	170	230	60
28	185	157	171	MIP	186,5	169	204	35
951	2075	1124	1599,5	EMRPD	2289	1483	3095	1612
255	983	728	855,5	IMRPD	1114,5	987	1199	212
Junior female 16-17 years					Junior male 16-17 years			

The participants had the different level of physical preparedness, competitive result and qualification, as well as the experience of competitive performances. The FINA points of Latvian team participants at the Baltic States championships are provided in the table №3.

Table №3. The level of competitive result in FINA points.

Participants	Average	Min	Max
Adult female 18-24 years	555,5	352	759
Adult male 18-24 years	645,5	437	854
Junior female 16-17 years	574	442	706
Junior male 16-17 years	533,5	399	668
Average value	577,125	407,5	746,75

The results of competitive activity, namely the time and distance the swimmers spent to overcome the underwater parts of the distance (after processing the video analysis using Videoanalyzer 50p fps HD video by Rein Haljand,) are provided in tables №4 and №5.

Table №4. Time and distance spent underwater after the start (m/sec)

Participants	Average	Min	Max
Adult female 18-24 years	10/5,6	6/3,1	14/8,1
Adult male 18-24 years	12/5,4	9/4,7	15/6,1
Junior female 16-17 years	8/4	6/3,1	10/4,9



Junior male 16-17 years	10,5/4,4	7,5/3,1	13,5/5,7

Table №5. The average time and distance spent underwater after the turns (m/sec)

Participants	Average	Min	Max
Adult female 18-24 years	8,75/4,5	4,5/3,1	13/5,9
Adult male 18-24 years	9,25/4,85	6,5/3,5	12/6,2
Junior female 16-17 years	5,75/3,15	4/2,1	7,5/4,2
Junior male 16-17 years	6,25/3,35	4,5/2,2	8/4,5

The correlation analysis carried out showed that the inverse relationship appears between the index of maximal expiratory pressure and the competitive result (p -value= 0, 16037). Statistically significant ($p < 0, 05$). As well as the inverse relationship was noticed between the index of maximal inspiratory pressure and the competitive result (p -value= 0, 4988). Statistically significant ($p < 0, 05$) (table № 3)

Table №6. Correlation of indicators if external respiratory and the competitive result. * $P < 0,05$

Indicator	MEP	MIP
FINA Points	0,16037*	0,4988*

For a deeper research of correlation dependences between the indicators of external respiratory and the competitive result, the separate analysis was carried out for men and women.

The obtained results are provided in the Tables №7 and № 8

Table №7. Correlation of indicators if external respiratory and the competitive result. Women * $P < 0,05$

Indicator	MEP	MIP
FINA points	0,5631*	0,4594*

Table №8. Correlation of indicators if external respiratory and the competitive result. Men. * $P < 0,05$

Indicator	MEP	MIP
FINA points	0,0095	0,1211*

Results, Conclusions and Recommendations

The level of competitive results of Latvian swimmers at the Baltic States swimming championships is measured by FINA points: Adult females (18-24 years) in average achieved 555, 5 points, for Adult males (18-24 years) the indicator was about 645, 5 points.

It its turn the average result for junior females (16-17 years) was 574 points that is higher than the average result for adult female athletes. However, the maximum indicator in an adult female group (759 points) is higher than the maximum indicator in a group of junior female swimmers (706 points). Junior males (16-17 years) reached average of 533,5 points, that is lower than the average result in a group of adult males (18-24 years). The average result in all groups was 577,125 points.

The time and distance spent underwater after the start:

Adult female (18-24 years) in average spent underwater 10m/5,6"

Adult male (18-24 years) - 12m/5,4", Junior female (16-17 years) - 8m/4", Junior male (16-18 years) - 10,5m/4,4".

Junior athletes are inferior on this indicator both in male and female groups of athletes.

The time swimmers spent underwater after he turns: Adult female (18-24 years) in average spent underwater 8, 75m/4, 5". Adult male (18-24 years) - 9,25m/4,85", Junior female (16-17 years) - 5,75m/3,15", Junior male (16-18 years) - 6,25m/3,35.



Comparing the data obtained with the results of the finalists of the European championships, held in Berlin 2014 (swim.ee by Rein Haljand), it was found that the Latvian athletes have a reserve in this parameter of competitive activity.

Athletes from Latvian team who were able to overcome the underwater parts of the distance more effectively had a higher competitive result (FINA points) and a high coefficient of correlation between the maximal expiratory and inspiratory pressures and the competitive result.

A deeper correlational analysis showed that inverse relationship appears in a group of female athletes between the index of maximal expiratory pressure and the competitive result (p -value= 0,5631*). Statistically significant ($p < 0,05$). As well as the inverse relationship was found between the index of maximal inspiratory pressure (p -value= 0,4594*).

Statistically significant ($p < 0,05$)

In a group of male athletes, the correlational relationship between the index of maximal expiratory pressure and the competitive result (p -value= 0,0095). Statistically insignificant, ($p < 0,05$). However, inverse relationship between the index of maximal inspiratory pressure and the competitive result (p -value= 0,1211*). Statistically significant ($p < 0,05$). The results obtained prove that there is a relationship between the pressure created during an exhale and inhale and a high competitive result (FINA points). Athletes with higher indexes of MEP (maximal expiratory pressure) are able to overcome the underwater parts of the distance more effectively, than positively influences their competitive results. The underwater distance and time had a great influence on the competitive result in all swimming styles for both genders. The farther the distance and the longer the time spent in an underwater phase after the start and every turn, the higher is the competitive result (FINA points), especially in 100m and 200m distances of backstroke, butterfly and breaststroke. The obtained results prove, that there is a relationship between the pressure created during an exhale and inhale and a high competitive result (FINA points). The results of the research can be used by coaches to optimize the coaching process with an aim of forming functional abilities of external breathing for young swimmers, that will lead to a more effective overcoming of underwater parts of the distance that in its turn will improve the competitive result.

References

1. Bruce R. Mason and Jodi M. Cossor (2001). Swim turn performances at the Sydney 2000 Olympic games. Australian Institute of Sport Biomechanics Department, Canberra, Australia
2. Chu, D.P.K., Luk, T.C., & Hong, Y. (1999). Turning technique of elite swimmers in butterfly and breaststroke. In R.H. Sanders & B. J. Gibson (Eds.) Scientific Proceedings of the XVII International Symposium on Biomechanics in Sports (pp. 349-352). Perth, Australia: Edith Cowan University.
3. Cossor, J. M., & Mason, B. R. (2001, June 26, 2001). Swim start performances at the Sydney 2000 Olympic Games. Paper presented at the XIX International Symposium on Biomechanics in Sports. Proceedings of Swim Sessions, San Francisco.
4. Daniel J. West, Nick J. Owen, Dan J. Cunningham, Christian J. Cook, Liam P. Kilduff (2011). Strengths and power predictors of swimming starts in international sprint swimmers.
5. Dybinska, E., Kucia K., Czyszczon, Kaca M., Staron M., Chodnow W. (2012). Respiratory parameters efficiency in sports results among 14-year old male and female swimmers.
<https://cyberleninka.ru/article/n/respiratory-parameters-efficiency-in-sports-results-among-14-year-old-male-and-female-swimmers>
6. Lyttle, A.D., Blanksby, B.A., Elliott, B.C., & Lloyd, D.G. (1999). Investigating kinetics in the freestyle flip turn push-off. Journal of Applied Biomechanics, 15, 242-252.
7. Lyttle, A.D., & Mason, B. (1997). A kinematic and kinetic analysis of the freestyle and butterfly turns. Journal of Swimming Research, 12, 7-11.
8. Platonow V. (1997). Competitive training in swimming. Structure and programs. Central Sports Centre [Centralny Ośrodek Sportu], Warszawa, 98-105.
9. Thayer, A.L., & Hay, J.C. (1984). Motivating start and turn improvement. Swimming Technique, Feb. Apr, 17-20.
10. Toussaint, H. M. (2001, December, 13, 2001). The Fastskin, hip, hype, but does it work? Paper presented at the FINA Coach Clinic, Antwerp.



11. Videler, J. J., Muller, U. K., & Stamhuis, E. J. (1999). Aquatic vertebrate locomotion: wakes from body waves. The Journal of Experimental Biology, 202(23), 3423-3430.
12. Vorontsov, A. R., & Rumyantsev, V. A. (2000a). Propulsive Forces in Swimming. In V. Zatsiorsky (Ed.), Biomechanics in Sport (1 ed., Vol. 1, pp. 205-231). Oxford: Blackwell Science Ltd.
13. FINA 2013– 2017 Swimming Regulation [FINA 2013 – 2017.]
14. www.swim.ee by Rein Haljand

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Economic Aspects of Functional Relationship of Financial Literacy and Sustainable Development

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Abstract

The main purpose of the article is to substantiate the necessity of increasing the financial literacy of the population, to analyze and evaluate the economic aspects of financial literacy and functional relationship, and to develop recommendations for further enhancement of reforms in this direction as one of the most important priorities of sustainable development in Azerbaijan.

For this purpose, the factors necessary for increasing the financial literacy in the context of global changes are analyzed and systematized, the means for implementation of basic financial literacy is identified and the global initiatives in the field of financial enlightenment is estimated in the article. Investigating the development of Azerbaijan in this field, the author emphasized the increasing financial literacy of the population as one of the main tasks of the state and financial market participants in the modern world and looked through ways to achieve this goal.

The implementation of the project on increasing the financial literacy of the population in Azerbaijan was considered and the National Strategy on financial literacy was considered worthy. According to the author of the article, all areas of financial literacy have been covered in the article and it is not only a social issue, but an economic one. The article also outlines the strategic goal of raising financial literacy in the "Strategic Road Map on Development of Financial Services in the Republic of Azerbaijan and highlighted the importance of financial literacy, and suggestions have been made on future measures to increase financial literacy in Azerbaijan.

Keywords: Financial literacy, Sustainable development, Market.

Introduction

In the context of global changes, there is a need to acquire more new information and skills to help people communicate efficiently, self-fulfillment and well-being. These important skills of the 21st century are included in financial literacy. Due to the rapid development of financial markets, crisis demographics, economic and political events, the importance of financial literacy as an element of the system of protection of consumers' rights of financial services as well as financial stability and the support of welfare of citizens has increased significantly over the last years.

Main part:

Financial literacy is the subject of scientific discussion. Factors increasing the financial literacy of the population are as follows:

- demographic factors.
- global changes in financial markets.
- Changes in the sphere of employment and retirement provision .
- having no additional knowledge for managing their debts, to provide their investment security, and protect the financial services of consumers who are unable to respond adequately to aggressive financial advertising.
- financial literacy is particularly important during the economic crisis, as it helps consumers to make effective decisions in difficult financial situations, using strategies for minimizing risks.

Financial literacy also increases financial discipline, which also shows itself in timely debt repayment and excessive debt prevention. This creates an initial basis for access to credit markets that are not accessible to consumers [8, p.3].



The level of financial literacy of people is very important in the economic development of the country. The lack of knowledge leads to negative consequences for both financial services consumers and the public, private sector and the entire society. For this reason, the creation and implementation of programs to improve the financial literacy of the population is one of the important directions of the country's state policy.

Directing people to the financial field on a high level, helps social and economic sustainability in the country. Increasing financial literacy decreases the risks such as excessive private debt of the citizens on consumer loans, fraud by unfair market participants or natural person's refusal to use tax deductions on income [4, p. 205].

Financially literate people keep track of their monthly income and expenses, live in accordance with their funds, plan their budget, acquire financial products and services through a well-chosen decision, and focus on financial issues. At the same time, they are well aware of their rights to receive various types of tax deductions [6, p. 430].

People should know the fundamentals and models of the financial market, understand the features and functions of financial institutions and instruments, have minimal financial insights, understand the differences between cash and non-cash payments. It is now more advantageous to use modern electronic education systems for this purpose [2, p. 89].

The introduction of such systems have significant potential for implementing innovative education products on the base of higher education institutions in the country [1, p. 158].

You also need to master certain skills. For example, to read the contract and understand the information contained there, to compare the offers of various companies, to make claims or complaints in case of a violation, to search and find information about the financial market [10, p. 27].

It is important to learn successful foreign experience and to apply financial literacy improvement programs intensively. Welfare of the citizens, as well as the growth of separate regions and the economy of the country as a whole depends on this [5, p. 622].

At present, the main task of financial literacy is to provide people with financial, economic and social-political security through increased knowledge and skills aimed at rational use of the financial resources of the population.

The task is realized through the following:

- Increasing the knowledge level of the population in the field of products and services of financial-credit unions (FCU);
- Strengthening the savings culture of the population;
- Seriousness of the population while working with the FCU;
- Identification and development of entrepreneurial potential of population
- Assimilation of knowledge and skills that would allow them not to be involved in fraud schemes and financial pyramids;
- Increasing responsibility for financial decisions;
- increasing the level of financial literacy of the population that allow them to use certain people as a means to achieve personal political goals;
- improving the welfare of the population [3, p. 39-40].



At present, the increase in the financial literacy of the population is one of the main tasks of the state and financial market participants. To achieve this goal, it is necessary to develop programs related to the financial knowledge, publish journals and books, and organize conferences on this subject.

The project on increasing the financial literacy of the population in Azerbaijan has been implemented for a long time, but lately the Central Bank has started a more coherent work and has started to prepare a National Strategy on Financial Literacy. Now, this structure identifies priorities in this area for all stakeholders. The Central Bank is developing this strategy and the World Bank supports it. The minimum amount is spent, where these programs are implementing. Public expenditure on their implementation is small and constitutes a small part of the budget. Basically, we talk about the more efficient utilization of these resources. For all this, the program is not only implemented by government agencies. The case also involves private structures and non-governmental organizations, as well as other stakeholders, particularly the media. In many countries, non-governmental organizations can often join and participate free of charge in these programs. But in any case, even if the activity is carried out in the public sector, costs are not so great. For instance, in order to integrate the financial literacy project in Central Asia into the education system, of course, the government needs to invest in it. In other words, the curriculum should be developed, teachers should be educated. As you know, after all the necessary information is reflected in the training course, the fundamentals of financial literacy in Azerbaijan will be included in the "Life knowledge" curriculum, after which the Ministry of Education will not need to have additional expenses.

As regards financial literacy, Indonesia can be considered as the only country which has the law that regulates this sphere. In general, financial literacy is not governed by laws, codes and other special rules. Another issue is the protection of consumers' rights and there is legislation in this area. That is, the adoption of legislation on this subject is not an advanced experience. This is not a matter of legal regulation and financial literacy is not manipulated by law. The Azerbaijani practice affirms above mentioned. There are no specific laws in this field in Azerbaijan, and are compensated by the normative acts of the Central Bank which successfully operates in this direction.

The World Bank has requested a special survey in this area. The survey was completed, but the results were not disclosed yet. We believe that the general community will be aware of the results by the end of 2019.

Unfortunately, the survey is only at the level of data analysis. The analysis is carried out with the help of a special program, and it is impossible to say exactly what the results are until it is done. Mathematical analysis is currently under way. We can say that this study was conducted in all regions of Azerbaijan. The survey was completed and information was received and now they are added to the computer.

Of course, it is very difficult to carry out comparison without the latest information. We can only guess. But a general tendency can be said that in many countries where an investigation has been carried out, and almost everywhere, even in developed countries, the level of financial literacy is absolutely inadequate and most people can not manage their own finances properly.

Financial literacy covers all areas. Of course, first of all, it is about people's personal finances, but at the same time if they can manage their money better, choose products and avoid mortgage lending, this is not a social issue anymore but an economic issue.

"Improving Knowledge and Capacity of Financial Market Participants" was stressed as a separate strategic objective and the importance of financial literacy was highlighted in "The Strategic Road Map on Financial Services



Development in the Republic of Azerbaijan” [7] with the Decree of the President of the Republic of Azerbaijan on December 6, 2016. In this document, strategic tasks for educating the population have been identified for the CBA as the main executor of the priority of increasing the financial literacy of the consumers and enhancing their rights protection. The contents of the “Financial Literacy” portal as well as the virtual educational platform are constantly enriched, measures are being taken for targeted groups, as in previous years such as, awareness raising, advocacy and campaign for increasing the financial literacy of the population, increasing public awareness on digital payments in these tasks, as well as in the President’s Decree approved on September 26, 2018, "the State Program on Expansion of Digital Payments in the Republic of Azerbaijan in 2018-2020",

The carried out works in this direction as well as institutional coordination on behalf of the CBA is carried out by a relevant structural division dealing with its economic enlightenment area, and for this purpose, it cooperates with other central banks, foreign and local training institutions of other countries, exchanges necessary information and creates mutual business relationships.

According to the definition of the Organization for Economic Co-operation and Development (OECD), financial literacy is a set of knowledge, skills and attitudes that is essential awareness level of the people for understanding the financial products and services, evaluating financial risk and opportunities, making information choices and doing other work efficiently. For this reason, financial literacy is important element for financial well-being of the population, as well as for the country's economic growth and financial stability.

There is a great need for financial education in Azerbaijan, but with the development of information technologies and the overall level of prosperity, there are more opportunities for self-education. In addition, self-study is the basis of financial literacy, which enables people to accept financial innovations that are presented to them and gain maximum benefit from them. The population tries to protect the interests that they interact with financial institutions, learn how to recognize fraudulent financial schemes, and escape from them.

One of the main goals of the country’s socio-economic development is to improve the welfare and quality of life of the population. This shows high levels of income and high standards of personal security, which determines the need for increasing financial literacy and financial security of the population.

Continuous work is needed at all levels with the participation of state authorities, local authorities, state extra-budgetary funds, educational institutions, public institutions and financial institutions. Extremely important conditions for the effectiveness of this work are the coordination of efforts on the basis of common goals in the implementation of various initiatives in the area of financial education.

Results, Conclusions and Recommendations

Recognition of financial literacy as an important skill of the 21st century created an initial ground for the development of initiatives both at national and international levels. The need for increased financial literacy is based on global trends: the aging population and, appropriately, increased financial burden for younger generations, complicated financial instruments, negative changes in employment and retirement, increased participation of the population in complicated financial transactions, and, respectively, importance of increasing the protection of financial services consumers.

By analyzing international experience, let’s note the more effective approaches to increasing the financial literacy of the population:



- Integration of financial education in secondary schools (mathematics, foreign languages, social studies);
- separate training programs for individual financial management for people of different social and age groups;
- co-operation of educational institutions with financial intermediaries (e.g. creation of a training bank in the school, creation of a special student branch by the bank in the educational institution where participants are working and serving);
- Creation of savings accounts for younger students;
- Creating training clubs for financial literacy;
- Creating free-accessible educating computer finance games and open mass online courses.

The initiatives undertaken in Azerbaijan are evidence of a certain development of Azerbaijan in the field of financial literacy. However, the mentioned progress relates primarily to the teaching of children based on financial knowledge (special subjects are included in the school curriculum, teaching materials and materials are being prepared). Relevant initiatives for the adult population are fragmental and contradictory. Therefore, in the context of pension reform, the reform of the medical and social security system, future measures to increase literacy in Azerbaijan should mainly relate to the elderly population who need new information to assess objectively the financial components of the reform.

The lack of basic knowledge about financial insights among the majority of citizens indicates the need for a preparation of the special document - the Strategy for improving the financial literacy of the Azerbaijani population. Implementation of this program will help to formulate the knowledge and skills necessary to effectively implement financial decisions by financial services consumers.

References

- Bondarenko T.N., Latkin A.P. Problems and prospects of the participation of the university sector of science in the production and realisation of innovative products // The territory of new features. Bulletin of the Vladivostok State University of Economics and Service. - 2009. - № 4 (4). - pp. 155-164.
- Izergina K.E., Koren A.V. Comparative characteristics of the main advantages and disadvantages of the e-education system in Russia // International Journal of Applied and Basic Research. - 2015. - № 3-1. - pp. 88-91.
- Khikmatov U.S. Principles of Financial Literacy: A Tutorial / Khikmatov U.S., Kochuyeva M.T. - B.: KRSU, 2015. - p.163.
- Koren A.V., Prochenko Y.A. Investment tax deductions as a tool to improve financial literacy of the population // International Journal of Applied and Basic Research. - 2014. - № 12-2. - pp. 204-207.
- Korneva E.V., Koren A.V. Factors affecting the business activity of the region // Modern problems of science and education. - 2014. - № 6. - pp. 622.
- Ponomarenko A.N., Koren A.V. Legal basis for the use of property tax deductions in the context of increasing tax literacy of the population // Successes of modern natural science. - 2014. - № 12. - pp. 429-432.
- “Strategic Road Map on Development of Financial Services in the Republic of Azerbaijan”, Decree of the President of the Republic of Azerbaijan of December 6, 2016
- The Case for Financial Literacy in Developing Countries Promoting Access to Finance by Empowering Consumers. - The International Bank for Reconstruction and Development/The World Bank. - 2009. - 25pp.
- "The State Program on Expansion of Digital Payments in the Republic of Azerbaijan in 2018-2020" Decree of the President of the Republic of Azerbaijan of September 26, 2018
- Zelentsova A.V., Bliskavka E.A., Demidov D.N. Improving financial literacy of the population: international experience and Russian practice. Publishing house: Yurayt - 2012. - pp. 25-28.



The Media Representation of People with Visual Impairment

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Abstract

Currently, mass media has a major influence on the life of the society and each of its members. In the context of the majority of members of society, the key aspect is the significance or 'credibility' of contemporary media, especially the television and internet, which makes it possible to transfer and maintain the viability of stereotyped messages about persons with health disability. In various mass media (newspapers, radio, TV, internet), one can find a rigid one-sided perspective of the issue of persons with health disability, including those with visual impairment. This media image has a significant impact on the attitude of the whole society towards persons with health disability and strengthens prejudices, stereotypes and rigid attitudes of the intact society.

What is the attitude of domestic and international media to persons with health disability, what sort of information do they present, and what image of persons with health disabilities, specifically visual impairment, do they create? The present paper attempts to cover the breadth of this topic in order to answer these questions through quantitatively oriented research with a poll survey character.

Keywords: person with visual impairment, media, media image, attitudes of the majority population, inclusion.

Introduction

Mass media have currently a major influence on the life of the society and each of its members. A significant feature of mass media communication is reciprocity. The recipient usually changes the way of thinking, attitudes and feelings, an internal dialogue is initiated, curiosity is encouraged, and 'it is easy to control the attractiveness dry neutrality, to exaggeration and a call for identifying oneself'. „Northrop Frye (in Postman, 1999) claims that each medium communicating with the public finds 'resonance' on the part of the recipients. A medium (book, photograph in a magazine, TV broadcasting), but also a mere statement or a map influence our ideas – for example about what is good and what is bad, about beauty; they influence the way we process (store) our ideas. After some time, certain information, concepts and topics are stereotypically (often without invention and thinking) associated with other fixed topics to form 'pairs'. According to the principle of paired associated learning, if one of the associated topics is mentioned, the other 'half' (unspoken) immediately comes up (Vybřal, 2009, p. 162). Today, the expression 'person with health disability' is subject to similar consequences.

The public tends to believe that mass media represent objective information resources, accurately reflecting the surrounding events. Most people have this attitude to mass media and their communications. Mass media are an institution, which stands between the recipients and the surrounding world and mediates contact with the social reality. At the same time, mass media have the ability to pass their communications off as a 'true picture of reality', which in turn adds to their credibility (Sedláková, 2007). According to contemporary media studies, a systematic presentation of these meanings to the audience is the most powerful effect of mass media. Then the audience, based on a certain consensus, incorporates (or does not) these meanings into their personal semantic structures (McQuail in Sedláková, 2007). Media contents represent constructed communications (pictures, messages) that transform an event from the social reality (which had been their model) and that bear the



dominant values of the society. “Especially in cases the audience does not have their own experience with a certain group, it is very likely that they will consider ‘reality’ what mass media tell about this group. In this way, mass media help stereotype various groups and help develop stereotypes.” (Jirák, Köpplová in Sedláková, 2007, p. 33).

Mass media are among the basic institutions that constitute the social order and confirm a given social arrangement as ‘natural’. From this point of view, media contents are bearers of ideology. There are topics that mass media inform about more frequently. “Emphasis is rather on the dramatic aspect than depth, on human interest rather than social significance, and on reporting procedures rather than sensitive analyses” (Bennett in Sedláková, 2007, p. 35).

According to McQuail (2002), mass media reflect and form the society and are the main source of information about the society. They not only create the social reality, but also form the features of normality for the needs of social life. Their power is ‘to serve as a crucial source of standards, models and norms’ (McQuail 2002, p. 87). McQuail’s perspective is shared by Burton and Jirák (2003), who state that the power of mass media lies in the fact that they are involved in the process of socializing an individual in the society and developing relationships and norms in the society. The authors also claim that mass media are so powerful that they can influence people’s behaviour and thinking.

Problem Statement

In various media (newspapers, radio, TV, internet), one can find a rigid one-sided perspective of persons with health disability, including those with visual impairment. This media image significantly determines the attitude of the whole society towards persons with health disability and strengthens prejudices, stereotypes and rigid attitudes of the intact society.

Stereotypes relating to persons with health disability are an integral part of our culture and continue their existence also because they are continuously reproduced through mass media. We learn about disability through mass media in the same stereotyped way. On the basis of this ‘normal’ learning process, these negative assumptions about persons with disability are transferred across generations (Barnes, 1992).

Giving publicity to the life of persons with disability includes very contradictory aspects. One end of the spectrum brings positives – the majority society learns about the situation of persons with disability and a reaction of the society is initiated. On the other hand, however, mass media often create an illusion of an almost seamless and professionally secured system of care and support of persons with health disability (Růžicková, Kroupová, Lopúchová, 2016; Růžicková, 2017; Růžicková, Kroupová, Vondráková, 2018)

Novosad (2011) emphasises the phenomenon of the so-called protective–generalising prejudices of the society concerning persons with disability, which in the eyes of the lay community manifest as unjustified or undeserved benefits. Unfortunately, the majority society is not objectively informed, there is a misbelief concerning the benefits of persons with disability, which in reality, however, represent only partial compensation for their disability.

Media image of persons with disability in research concepts

The text below outlines several studies concerning the media image of persons with health disability.

One of the studies of the Florida State University focused on the consequences of humour presented in the media concerning health disability. In line with the methodology of the study, students of a local business school watched one of two films, the objective of which was to decrease negative attitudes towards persons with health disability. The two films were of a different genre - one of them was humorous, the other one was serious. The



third sample of students did not watch any film. The results of the study showed a significant improvement in the attitudes to persons with health disability in the sample of students who watched the comedy oriented film. The findings of this study point to the fact that humour used in the context of persons with health disability might be an effective means of positive influencing of attitudes to persons with health disability (Smedema, Ebener, Grist-Gordon, 2012).

Giddens (in Zalkauskaite, 2012) highlights that the attitude to persons with health disability developed through mass media is very important for identity development of an individual with health disability. Mass media create a model that is used for comparing each member of the society. The information demanded in mass media can help identify an individual or exclude an individual from the society because such information does not match the 'standard'. According to the author, mass media represent a very influential means that creates the opinions of the members of the society in relation to persons with health disability.

Similarly, in her study, Ciot (2010) confirms the fact that mass media create the image of unlikeness of persons with disability and encourage a social stigma. The author (2010) conducted an enumerative analysis of messages in Romanian press between 1991 and 1999 relating to persons with health disability. The analysis primarily focused on the enumeration of stereotypes and prejudices regarding persons with health disability. At the beginning of the reference period, persons with health disability were projected in terms of negative aspects; these primarily included negative remarks concerning their physical disability.

According to Ciot (2010), mass media form the image of a person with disability as a white male, which is in contradiction with the incidence of disability among women. However, a 46% male dominance was observed in mass media. The author (2010) further focused on the existence of articles on health disability and their bearers. In this context, an interesting year was 1996, when the number of articles significantly decreased (from 64 articles in the previous year to 39 articles in 1996), on the contrary, in the last monitored year (1999), the number of articles was 98.

The study also focused on terminological aspects and their transformation in the monitored period. In this context, the author (2010) focused on an analysis of the terms used to describe persons with disability. Some of the terms disappeared completely after their first use (malformation, paralysed, weakness, etc.), some of the terms kept appearing for a period of one year (abandoned, invalid, institutionalised). A collocation that persisted in use was 'special educational needs' (continuously from 1994 to 1999). It appears that mass media were aware of the significance of this collocation and fulfilled their role in shaping the opinions of the lay community. Another monitored indicator was the tinge of the article and its positive or negative tuning towards persons with disability. Negative articles had an increasing tendency. Positive articles were quite the contrary.

In many respects, publicity strengthens negative attitudes towards persons with health disability. Sikorski, Schierl (2014) point to a paradox that news reporting is dominated by persons with health disability irrespective of the fact whether this health disability is relevant for the presentation and understanding of the topic. Similarly to athletes with health disability, persons with health disability are often depicted in a stereotyped way with negative connotations and specific (negative) allusions. These messages are usually of a negative nature.

Soffer et al. (in Zalkauskaite, 2012) performed a comprehensive survey of scientific literature that revealed the contradiction between the purpose of anti-discrimination laws and media response to disability, which creates the image primarily through words such as deviation, etc. In a research of opinions about persons with disability in Germany, 46% of respondents suggest that the situation of persons with health disability might improve if mass media actively create the image of a person with disability as a 'normal member of the new society'.



Randjelovic; Pirs, D.; Pirs, T. (...) emphasize that mass media have a tendency to use the medical model of health disability, while the individual with disability is unimportant in the media. Mainstream media do not acknowledge art and media culture of persons with disability.

The development of the image of persons with health disability in mass media is described by Riley (in Sewell, 2008). This development involves a shift from the medical model and the model of civil rights, to the contemporary media image of persons with health disability as consumers, as the 'heroes of assimilation' who overcome their limitations.

In her research study, Bajeroová (2012) focused on media content concerning persons with health disability with a focus on a qualitative analysis of information presented in selected Czech media. The objective of the research study was to answer questions concerning topics communicated in relation to persons with health disability, changes in terminology and the nature of the social role of an individual with disability. The author also focused on whether similar stereotyped images of persons with health disability also existed in other European countries and to what extent mass media used figurative (metaphoric and metonymic) expressions in connection with persons with health disability.

In terms of Czech mass media the research focused on the three most popular TV stations (CT 1, NOVA, Prima) and three major newspapers (MF Dnes, Právo, Lidové noviny). In these media, the issue of persons with health disability is communicated especially in the context of social and financial aspects; frequent terms include 'be confined', 'be dependent', 'to suffer'.

A similar research study was performed by Reichová (2010). To analyse selected reports in Czech mass media (TV, newspapers) the author used the embedded theory method (open and axial coding). The open coding procedure resulted in the following categories, which very aptly illustrate the current image of persons with health disability in television and printed media. The following categories were coded: 'employment', 'leisure time' (sport, culture), 'education', 'housing' (separate housing). The author further identified specific aspects of the issue of persons with health disability – attitudes of the society to persons with health disability, characteristics of persons with health disability (self-reliance, independence, freedom, equality, self-esteem), involvement of persons with health disability in the society, collaboration (interdisciplinary collaboration of involved experts + international context of the issue), assistance (with an emphasis on financial aspects).

In her research, Bajeroová (2012) focused not only on Czech media but also mass media in German-speaking countries, specifically on the three most popular TV stations and newspapers in 2011.

Television reports and other information about persons with health disability presented in mass media in Germany and Austria are usually more in-depth and include more philosophical and generally ethical issues. Specially emphasised issues include full inclusion (practicality, feasibility, advantages for all parties involved; representative headline: "The same is not equally good for everybody"), adequate terminology (importance of terminology for persons with health disability; umbrella headline: "We are not disabled people who play music but musicians with a certain disability"), aspects of everyday life with a focus on practical areas, issues of employment (illustrative headlines: "Can a job seeker be questioned about health disability?", "As a result of health disability the physician is much better professionally," "Fear and prejudice"). These mostly positive intentions are contrasted by the phenomenon of presenting 'hidden suffering' in cases where health disability is not obvious, visually apparent or undiagnosed.

Printed media have an apparent tendency to report on persons with health disability without emotional timbre ("Shoppers block three of the five places for the disabled", "Employment of the disabled still limping"). However, there are also reports from the opposite end of the spectrum with an altruistic tinge ("Light into the



dark – successful action day”). In general, however, all these media put an emphasis on using adequate terminology and a generally fair approach to persons with health disability. An illustrative example could be the following headline: “A man is not disabled but has disability”. A dominant tendency is not to project and perceive persons with disability as ‘miserable’ people.

The phenomenon of labelling of persons with disability according to the principle of ‘people first language’ has, according to research studies, not been fully adopted by mass media in our country or foreign countries (German and Austrian). Both in our country and in German-speaking countries the term ‘with disability’ is unfortunately used less than ‘disabled’.

It is also interesting to compare the use of opposites to persons with health disability. While domestic media commonly use the term ‘healthy’, a usual equivalent in German-speaking mass media is ‘non-disabled’ or ‘without disability’.

An illustrative fact is also the media space provided to experts concerning the issue of persons with disability. While in Czech mass media this issue is more frequently communicated by politicians and cultural celebrities, in the monitored German-speaking countries the discussion is led by professionals in the field.

Bajerová (2012) also performed a short questionnaire survey aimed at the attitudes of professionals to publicizing the issue of persons with health disability. The research sample consisted of 30 professionals from various institutions in the Czech Republic, Germany and Austria. Two-thirds of the respondents from the Czech Republic agreed that mass media did not inform sufficiently about the real potential of persons with disability and, as a result, the lay community was not provided with adequate information about the potential of persons with health disability. In comparison with the monitored German-speaking countries, this situation is totally inverse.

Purpose of the Study

The aim and purpose of this study is an analysis and description of the media image of persons with disabilities with an emphasis on those with visual impairment in the Czech Republic. In this issue we focus on selected mass media and their representation of people with visual impairment.

Research questions and aims

In the context of this problem we have established the following research questions:

- What is the attitude of domestic and international media to persons with health disability?
- What sort of information do they present?
- What image of persons with health disabilities, specifically visual impairment, do they create?

The answers to these and other related questions we tried to find through descriptive analysis of Czech media reports and other international research concepts. Secondly, we realized quantitatively oriented research.

Research Methods

A quantitative research study was performed among the general public focusing on the quality of life of persons with visual impairment. The research sample was formed on the basis of a public inquiry. Respondents from the lay community responded to a wide range of questions also involving mass media and their way of presenting the issue of visual impairment. The task was to recall the latest media report on the issue of persons with visual impairment.

Findings



A general exploration of internet search engines allows an assessment of the frequency that visual impairment is discussed in mass media but also the image of persons with visual impairment that mass media help create.

Table 1. Frequency of expressions related to visual impairment in Google full-text search

Expression searched	Frequency in full-text search		
	2013 / March	2016 / December	2019/ June
'zrakové postižení' (visual impairment)	104,000	168,000	911,000
'se zrakovým postižením' (with visual impairment)	261,000	278,000	1.230,000
'zrakově postižení' (visually impaired)	469,000	157,000	922,000
'nevidomost' (blindness)	641,000	417,000	1.030,000
'nevidomí' (blind persons, adjective, masculine or collective, plural)	756,000	231,000	1.240.000
'nevidomé' (blind, adjective, feminine plural or neuter singular)	629,000	414,000	1.030,000
'slepota' (blindness, synonym)	358,000	317,000	580,000
'slepi' (blind, synonym)	3,040,000	712,000	7.340,000
'slepci' (blind people)	207,000	131,000	164,000

We came across an interesting finding in the full-text search for the term 'slepec' (blind person). One of the first links was Slepec on Wikipedia: "Slepec (Spalax) is a genus of Rodentia from the family of Spalacidae. It includes a total of 13 species living in Eastern Europe, in the Near East and in North Africa". At the beginning of the article Wikipedia has the following note: "This article is about the genus of rodents. Visual impairment is described in an article called Blindness." (<http://cs.wikipedia.org/wiki/Slepec>). The fact that the term 'slepec' is not primarily associated with the issue of visual impairment is generally a good sign concerning the use of lay terminology. The table shows an increase in the number of concepts associated with visual impairment, which we regard as pleasing. Increasing awareness can be seen as a positive move towards social inclusion of visually impaired people.

A quantitative study was conducted to provide relevant answers to the research questions. Research was performed among the general public focusing on the quality of life of persons with visual impairment. The research sample was formed on the basis of a public inquiry. Respondents from the lay community responded to a wide range of question also involving mass media and their way of presenting the issue of visual impairment. The task was to recall the latest media report on the issue of persons with visual impairment.

Of the total of 210 respondents, more than a half could not remember or did not follow any mass media. Some examples of the other responses are below:

A person with visual impairment as a victim of crime or the system

"They robbed a blind on a wheelchair", "Ethanol affair, blinding of those who drank poisoned alcohol", "A trusting blind lady deceived" "Somebody stole a laptop from this kind of person"

Stealing was reported by more respondents (about 10), but the ethanol affair was mentioned by only one of them in the context of visual impairment.

Educational issues

"Probably integration of children with disability", "Probably inclusion of children with visual impairment in schools, this should be addressed by professionals and not by amateurs trying to make use of their xenophobic narrow-minded opinions", "Changing the Education Act - supporting persons with disability (education, counselling centres, ...)"



Inclusion has become a frequently discussed issue for the media, which was also reflected in the respondents' answers.

Social issues

"Looking for barrier-free living", "Adoption of a child, visually impaired wanted a child, adoption went wrong", "Documentary about a blind mother", "How do these people travel by train", "Married couple cannot bring up their child, both are blind", "Inappropriate behaviour of a Lidl employee to a blind citizen. In the end, everything turned out better than expected, the management of the store went to an exhibition of the blind". "About a special facility for the blind in Vlastovičky". "The organization that supports people with visual impairment received a special PC so that individuals with visual impairment can write, the PC reads out texts, simply they use the PC as people without visual impairment". "Story of the blind Martina. Her condition after she went blind, coping with the impairment, training of skills"

A significant ethical issue is self-reliance of blind persons in the role of parents. The respondents suggested problems of blind parents with officials if they want to bring up their child without visual impairment.

Foundations, collections, raising awareness

"Café in the dark", "Firefly", "Unstoppable", "This was a short advertising spot featuring several persons with various types of disability. A very nice life motivating spot. "Birell campaign to support the handicapped". "Help the children – Chicken". "Children's chance". "Walking people".

Visually presented campaigns received more attention of the respondents. The most favourite and most frequently mentioned campaign was 'Unstoppable' followed by 'Firefly' and 'Café in the dark'.

Sports achievements

"32-year-old runner to take part in a marathon abroad", "Blind runner on the Chinese wall", "Honza Řiha and his effort to climb the eight-thousander", "Sports possibilities". Athlete on skis with a guide". "Sports games for youth with disability"

The most astounding was a blind marathon runner, who ran on the Great Wall of China, followed by Jan Řiha, the blind climber.

Technical and medical achievements

"Bionic eye", "New stick for the blind", "Information about voice navigation using SW on the mobile phone, the control room provides instructions. The person is navigated also by means of the mobile phone camera", "This concerned the development of glasses adjusted for the visually impaired, which can capture and describe the situation", "Operation of a seven-month-old baby, who suffered from retinal haemorrhage. The child might see if the brain copes", "Visual therapy".

The influence of mass media was especially strong in relation to the launch of the new stick for the blind with navigation developed by specialists from the Czech Technical University – presentation in the media influenced the frequency of responses.

Miscellaneous

I don't remember any reports but yesterday I saw a Czech film called *Láska je láska*, where one of the characters was a blind girl playing the piano and longing for love". "About guide dogs". "About a performance of the musical band Tap Tap". "Opening of a gym attended by a blind secretary", "A scene from *Česká soda* called *Strike of the blind*". "Blind woman takes part in dog trekking". "Blind photographer awarded". "Training of



guide dogs”, “Singing couple – awesome experience”. “Report on a blind woman who walked barefoot and the police took her to the station”. “Report on reconstructed streets in some city, which were not suitable for persons with visual impairment”.

This category is mostly positive and presents the perspective of mass media and their coverages with a higher degree of heterogeneity.

The table below shows illustrations of the respondents’ associations related to media coverage of persons with visual impairment in Czech mass media.

Associations with the media image of persons with visual impairment

What is your first thought when you see a report about a person with visual impairment in the media (TV, internet, newspapers, etc.)? Please be honest and tick more responses if appropriate

Table 2. Associations with the media image of persons with visual impairment

Response	Number	Relative number in %
It’s good that persons with visual impairment are spoken about, people start considering them a natural part of the society.	151	71.9 %
Well, it’s hard for them...	78	37.14 %
It’s good that they show that people with visual impairment have a hard life!	57	27.14 %
This will be interesting.	30	14.29 %
Again, they only show the weak or bad sides of disability.	29	13.81 %
This will be another piece of heart-breaking news.	27	12.86 %
This will be another unprofessional coverage!	26	12.38 %
Again, they’ll play on affections.	19	9.05 %
I don’t like when they show those sad lives.	10	4.76 %
I’m sure they need something again, a donation or something...	6	2.86 %
Why don’t they show more important news?!	6	2.86 %
Oh no, again those disabled!	1	0.48 %
Hurrah! I hope they’ll film it well!	1	0.48 %
What was said before is more related to the media than to persons with visual impairment.	1	0.48 %
Our media (TV, radio) can’t handle a topic like this and end up with heart-rending rubbish... Therefore, these reports should be made by people who have personal experience with those with visual impairment and are not fascinated with every word or deed...		
I admire them coping with their situation.	1	0.48 %
It depends on what the report is about.	1	0.48 %
It depends on the kind of report	1	0.48 %
None of this – I don’t follow the news much, and definitely not because of whether it’s about somebody with disability or not.	1	0.48 %
It depends on what the report is about, if it’s only about that somebody is disabled, then “ok dear, it’s here again, there’s nothing better,” if it’s about something the person has achieved, ok I’m interested	1	0.48 %
I don’t follow the news and the media much	1	0.48 %
After all, they are no different from us, why don’t they make a report on my neighbour, it would be the same.	1	0.48 %
There are more interesting topics, aren’t there?!	1	0.48 %
There are not many reports on persons with visual impairment	1	0.48 %
Those that complain about trivial problems should watch this	1	0.48 %



The Czech system should work on better inclusion of disabled people in the society, I would like to hear more about the state supporting these people rather than just sketchy findings of media employees.	1	0.48 %
Media fuck up and make money on it. The bitch that tries to ingratiate her with the editor in chief should try it herself.	1	0.48 %
The state can't take care of them	1	0.48 %
The style of the coverages and their presentation help create a feeling of regret among the general public but I don't think they want regret	1	0.48 %
That is good!	1	0.48 %
They were, are and will be	1	0.48 %
My answer directly depends on the specific media concerned. I see a big difference between newspapers like Blesk and Můžeš.	1	0.48 %
I don't follow mass media	1	0.48 %
I don't care.	1	0.48 %

Over seventy percent of the intact population support the idea of publicizing persons with visual impairment in mass media and believe that mass media help better inclusion of persons with visual impairment in the society. A surprising fact is that 38% of respondents believe that “persons with visual impairment have a hard life” or even that “their fates should be shown”. Here we can trace a persistent stereotype of altruism, compassion and regret. A negative connotation is that 31% of respondents consider reports on persons with visual impairment ‘heart-breaking’, unprofessional, or ‘playing on affections’. To some extent, this proportion of respondents is a proof if increasing media literacy of the majority population. Another positive fact is the marginal expression of indifference to this issue (“I don’t care” – 0.48%).

Conclusion

In this context, the roles of various types of media are very variable, but public television should play a dominant role. Therefore, Czech Television adopted a code, according to which “it is committed to devote some of the programme space to issues and genres associated with the needs and interests of seniors, sick persons, persons with health disability, persons in a difficult social situation, young families and national or ethnic minorities living in the Czech Republic”.

A clearly positive fact is that the issue of persons with health disability is provided sufficient space in mass media, which is evidenced by the above mentioned examples of giving publicity to this issue. But the question that remains is to what extent this space is adequately used. With reference to the terminology used, we can conclude that this media space is unfortunately used in a stereotyped, rigid and usually unilateral way, which regarding the stereotyped perception of persons with disability by the majority society only strengthens the original attitude of the lay community.

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References

- BAJEROVÁ, Ž. (2012). Osoby se zdravotním postižením a jejich mediální prezentace v České republice a německy mluvících zemích. Brno: MU. Thesis. (Czech language)
- BARNES, C. (1992). *Disabling imagery and the media. An Exploration of the Principle sfor Media Representations of Disabled People*. Halifax: Ryburn Publishing.



- CIOT, M. (2010). Romanian media representations of disability. *Studia Universitatis Babes-Bolyai, Psychologia-Paedagogia*, 181-96.
- JIRÁK, J., WOLÁK, R. (ed.) (2007). Mediální gramotnost nový rozměr vzdělávání. Jihlava: Radioservis. (Czech language)
- Jirák, J.; Šmíd, M.; Čermák, M. et al. (2005). 10 let v českých médiích. Newton information technology, s. r. o. Praha: Portál. (Czech language)
- KODEX ČESKÉ TELEVIZE (2003). Zásady naplňování veřejné služby v oblasti televizního vysílání. Praha: ČT. Retrieved from: <http://img6.ceskatelevize.cz/boss/image/contents/kodex-ct/pdf/kodex-ct.pdf> [on-line] cited 6 Mar 2013. (Czech language)
- NOVOSAD, L. (2011) *Tělesné postižení jako fenomén i životní realita: diskurzivní pohledy na tělo, tělesnost, pohyb, člověka a tělesné postižení*. Praha: Portál. (Czech language)
- REICHOVÁ, P. (2010) *Obráz osob s postižením v Českých médiích*. Brno: MU. Thesis. (Czech language)
- RŮŽIČKOVÁ, V.; KROUPOVÁ, K. & LOPÚCHOVÁ, J. (2016). *The level of opinions of majority population on the quality of life in persons with visual impairment*. p. 1155 – 1162. In 3rd International multidisciplinary scientific conference on social sciences a arts SGEM 2016, Conference proceedings. Book1. Psychology a psychiatry, sociology a healthcare, education. Volume III. Sofia: STEF92.
- RŮŽIČKOVÁ, V. (2017) *Visual stimulation as one of the conditions for successful development of a child with visual impairment*. (p. 262 – 267) in ICLEL 2017 Proceeding Book. Sakarya: Sakarya University.
- RŮŽIČKOVÁ, V.; KROUPOVÁ, K. & VONDRÁKOVÁ, A. (2018) *Counselling for People with Visual Impairment in the Czech Republic* (254 – 260) in 4th International Conference on Lifelong Education and Leadership for all, ICLEL 2018, Conference proceeding Book. Sakarya: Sakarya University Faculty of Education.
- SEDLÁKOVÁ, R. (2007) *Obráz Romů v televizním zpravodajství – příklad mediální konstrukce reality*. Brno: Masarykova univerzita. Dissertation. Supervisor: PhDr. Jaromír Volek, Ph.D. (Czech language)
- SEWELL, E. H. (2008) Disability and the Media. *Journal Of Broadcasting & Electronic Media.*, 52(3), 506-507. doi:10.1080/08838150802205967
- Slepec. <<http://cs.wikipedia.org/wiki/Slepec>> [cited 06-12-2016]
- SMEDEMA, S. M., EBENER, D., GRIST-GORDON, V. (2012). The impact of humorous media on attitudes toward persons with disabilities. *Disability & Rehabilitation*, 34(17), 1431-1437.
- Syndikát novinářů. <www.syndikat-novinaru.cz> [cited 06-12-2016]
- VON SIKORSKI, C., SCHIERL, T. (2014). Attitudes in context: Media effects of salient contextual information on recipients' attitudes toward persons with disabilities. *Journal Of Media Psychology: Theories, Methods, And Applications*, 26(2), 70-80.
- VYBÍRAL, Z. (2009) *Psychologie komunikace*. Ed. 2. Praha: Portál. (Czech language)
- ZALKAUSKAITE, U. (2012). Crystallization of Disability Stereotypes in Lithuanian Media. *Social Sciences* (1392-0758), 75(1), 83-91.



Mentor's Support at the Initial Stage of Career Counsellors' Professional Activity

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Abstract

In Latvia currently there is no support programme developed for introducing the new career counsellors to their professional duties, promoting faster and more successful integration in the new workplace. Researching mentor's support to career counsellors for successful start of their professional activity, the answers were searched to the following research questions: 1) what support do career counsellors need when starting their professional careers, and in what areas; and 2) what type of experience is needed for a mentor in order to help a new career counsellor at the initial stage of his/her professional activity. As part of a phenomenological research study, 15 career counsellors were interviewed. The obtained data allowed to determine four main support areas for the initial stage of career counsellor's professional career: 1) mentor's professional experience (trust and cooperation between the mentor and mentee), 2) adaptation (length of the adaptation period and the adaptation period's plan); 3) work environment (understanding organizational culture and circulation of documents); 4) professional development (accumulation of experience and observation of the work of other colleagues).

As the result of the study, the recommendations were developed for new career counsellors and for experienced ones who are ready to be mentors to their new colleagues. The needs of career counsellors were identified and the problems explored also as part of the Nordplus Horizontal 2017 project „Reducing Teacher Drop-out Rate” (ReTeD), where the authors of this study are involved.

Keywords: career counsellor, inclusion, beginning stage of a professional career, mentor, mentorship (mentoring).

Introduction

In Latvia, the preparation of career counsellors began within the European Social Fund co-financed project „Providing Career Education Programs in Educational system” (2005/0002/VPD1/ESF/PIAA/04/NP/3.2.7.1/0001/0159), developing and accrediting a professional master's study program "Career counsellor" in five universities of Latvia. Currently the implementation of the programme continues in four universities.



Since 2009, when the graduates of the programme for the first time obtained qualification “career counsellor”, 330 professionals qualified to provide career guidance services (individual and group counselling) have entered Latvian labour market (Jaunzeme, 2017). This fact does not guarantee that a professionally trained career counsellor will continue working in his/her field and that the organization is happy with his/her work. When starting their professional career, young career counsellors not always are knowledgeable about their organizational culture, values, and interactions of their workplace.

In 2018, the Nordplus Horizontal Project “Reducing Teacher Drop-Out Rate (ReTeD)” (NPHZ-2017/10067) was launched with aim to look for solutions for reducing new teachers’ drop-out rates offering them mentor’s support. Within this project also the work of new career counsellors was analysed, as well as research conducted on how the mentoring activity can be related to introducing the new career counsellors into their professional activities.

The aim of this study is to research mentor’s support for career counsellors in the first stage of their careers. The research questions are the following: 1) what support do career counsellors need when starting their professional careers, and in what areas; 2) what type of experience is needed for a mentor in order to help a new career counsellor at the initial stage of their professional activity. As in Latvia it is not yet possible to speak about mentoring activities in career consultation, therefore, as part as Erasmus + internships, the good praxis examples were explored in Estonia, where mentoring of new career counsellors has been implemented already for 3 years. Thus, this study involves data from two Baltic States: Estonia, where a mentoring program for young career counsellors is in operation, and Latvia, where the situation was explored about the need for mentoring support.

Mentoring for providing support to the career counsellors

The professionalisation of the terms 'mentor' and 'mentoring' can be observed over the last decade, but it has not led to the development of a uniform definition of 'mentoring'. On his website, A. Gibbon (n.d.), a mentor and a coach, points to 16 definitions of mentoring. Initially, mentoring was an informal activity between an older and more experienced professional and a younger colleague. Nowadays mentoring has a more structured process where both – the mentor and the mentee are the winners. Mentoring is a non-judgmental relationship between two people in which one person volunteers time for the other person for his/her support and encouragement. The relationship between the mentor and the mentee is usually developed and maintained over a sustained period of time during which the mentee is in some transitional phase of life (Urdze, 2007; Gibbon, n.d.). This is a long-term relationship that meets the need for development, helps to develop potential, and brings benefit to all partners: the mentor, the mentee, and the organization (Futures Mentoring Program, 2014). In dictionaries the term 'mentor' is interpreted as an experienced advisor who is trusted by someone without the relevant experience (Oxford Advanced Learners Dictionary, 2013) or a trusted teacher or advisor (Chambers English Dictionary, 2014). Thus, it can be summarized that mentoring develops between an experienced person (mentor) who agrees to provide help and support to another less experienced person (mentee), with the aim to facilitate his/her growth and success. However, it is not the role of the mentor to change the mentee's point of view or directly transfer his or her skills. By suggesting, supporting and asking, the mentor guides the mentee to independently seek and find solutions. Mentoring has an informal structure, and the main task of mentor is to build a good relationship.

The first organizations that developed mentoring in Latvia were established in business after year 2000, such as association "Leader", founded in 2003 (Leader. Mentoring, n.d.) and SSE Riga Mentor Club, founded in 2008 (Mentor Club, n.d.), but in pedagogy the concept of "mentor" became relevant in 2011, when the "teacher-mentor" profession was included in the Occupation Classification system (Noteikumi par pedagogu profesiju un amatu sarakstu, 2011). However, in Latvia, in the sphere of career counselling, mentoring is still an area to be developed, as



overall mentoring helps each organization to achieve its goals faster and more effectively (Tüliki, Tüla & Jari, 2005), reduces the risks of error and increases the effectiveness of the work of a new career counsellor.

Mentoring is directly focused on professional support and assistance to the employee during the first weeks of work and for on-the-job learning of the new employee (Urdze, n.d.), and is also considered as a support base for beginning of career consultant's professional activity. A mentor, like any experienced employee, with his/her managerial competencies and coaching abilities, provides feedback to the new employee as quickly as possible and provides training and induction for the new employee in a professional manner (Parsloe, 1992; Tüliki, Tüla & Jari, 2005; Ngang, Kanokorn, Prachak, 2014; Adaptācijas būtība, n.d.).

There are two people who interact in this knowledge transfer process, and both have specific needs arising from previously predictable and unpredictable everyday situations. The relationship between the mentor and the mentee can either have a fixed-term or it can be of indefinite duration (Fortino, 2006), but it is important that both persons act as equal and learn from each other, creating a mutual help/support-providing link. In career counselling the role of the mentor is to act in a way that improves the career counsellor's performance within a particular organization (Tüliki, Tüla & Jari, 2005; Fortino, 2006; Akopova, 2006). During this support process, the mentor not only responds to the needs of the new career counsellor and to the day-to-day issues, but also shares his/her experience, helps to perfect and develop the professional skills of the new colleague. In the early stage of a career counsellor's professional activity, both the mentor (support provider) and the new career counsellor as a mentee are co-responsible for what is happening throughout the mentoring process (Akopova, 2006; Futures Mentoring Program, 2014). Personality/character traits as well as the professional knowledge and skills needed for the mentor's work are important when analysing the specific competencies of mentors (Rokasgrāmata mentoriem, n.d.). There are four competencies essential to a mentor, namely active listening, the ability to form and maintain trusted relationships and communication, the ability to encourage and be aware of current reality and ability to set goals for the future (Phillips-Jones, 2001), and besides the versatility of mentor competencies, also attitudes, virtues and values are emphasized (Johnson, Ridley, 2018).

Research methodology

For this research a phenomenological method was selected, incorporating elements of hermeneutic and psychological phenomenology. Hermeneutic phenomenology focuses on the interpretation of data, while psychological one emphasizes participants' descriptions of experience (Pipere, 2016). Phenomenological research is based on research activities that examine people's experiences in relation to the phenomenon and how people interpret this experience in relation to the applicability of an existing system to the new situations (Pipere, 2011; van Manen, 2018). In this particular case study the career counselling experience of mentors and mentees' was explored in Estonia with the aim to transfer the good practice examples for mentorship development of career counsellors in Latvia. The research is designed following the characteristics of the phenomenological research, ie: 1) a specific research phenomenon is determined, 2) research questions are put forward, 3) research sources are determined, 4) data is collected and analysed, and 5) analysis is conducted on the results obtained (Pipere, 2016). The data is obtained using a semi-structured interview that allows to maintain a balance between openness and structural flexibility (Pipere, 2011), and expectations for information to be obtained (Kristapsone, 2014).

Attention was paid to the following aspects: (1) exploring the needed support for career counsellors at the beginning of their career; 2) reflections of career counsellors about professional opportunities and gains if support is provided by a mentor, 3) exploration of support provided by mentors to career counsellors at Estonian Unemployment Insurance Fund and in Latvia - in comprehensive schools and in the systems of State Employment Agency. The



study was conducted from July to December 2018 both in Estonia (EE) and Latvia (LV). Interviews were conducted in three languages - Russian, English and Latvian, choosing the language of communication in accordance with the respondents' knowledge and skills. Altogether 15 interviews were conducted, duration of one interview was approximately 45 minutes, which fit the timeframe of one consultation. Interviews were recorded in audio files using a mobile application Samsung Voice Recorder. The total time of interviews is 9 hours and 50 minutes, but the volume of transcriptions - 141 pages.

For the interviews the respondents were selected according to the following criteria: 1) those who have experienced mentor's support at the beginning of their professional activity as a career counsellor, 2) those career counselling specialists who themselves have been mentors to new career counsellors, and 3) career counsellors, who did not receive any mentor's support at the start of their professional activity, but who think it would have been beneficial. Only those career counsellors were interviewed who have started their professional activity within last three to five years, because those who have more than five years of professional experience might remember the beginnings of their career partially or incompletely, and some experience from more than five years ago might have changed significantly or lost its relevance. Table 1 shows the data of general experience of research participants and the characteristics of interviews.

Table 1. Characteristics of the interviews

Code, country*	Mentor's support received	Mentor's experience	Duration of the interview (h:mm:ss)	Volume of transcription (pg.)
CC1, LV	No	No	0:35:00	9
CC 2, LV	No	No	0:41:04	11
CC 3, EE	Yes	No	0:39:37	11
CC4, EE	No	Yes	0:35:12	11
CC5, EE	No	No	0:37:45	10
CC6, EE	Yes	No	0:28:30	7
CC7, EE	Yes	No	0:28:14	6
CC8, EE	Yes	No	0:37:23	8
CC9, EE	Yes	Yes	0:36:15	6
CC10, EE	No	Yes	0:35:09	11
CC11, EE	No	Yes	0:43:03	9
CC12, EE	Yes	No	0:36:28	8
CC13, EE	No	No	0:44:02	13
CC14, EE	Yes	No	0:37:50	10
CC15, EE	No	No	0:40:18	11
Together			9:10:50	141

(* LV – Latvia; EE- Estonia)

Data were summarized using content analysis method: (1) at the manifestation level, that is, a descriptive analysis was performed without analysing the content; and 2) at the interpretational level, that is, the meaning of the content was revealed and conclusions drawn with regards to the content (Geske, Greenfeld, 2006).

The findings and discussion on mentoring support for new career counsellors

The obtained data enabled to identify four key areas in the early stage of a career counsellor's career: (1) the mentor's professional experience, which provides trust and collaboration between the mentor and the mentee (2) adaptation by specifying the length of the adaptation period and its plan; 3) working environment with an emphasis on



organizational culture and circulation of documents; 4) professional development, meaning the need to accumulate experience and to observe the work of colleagues.

The mentor's professional experience. Studying the interaction/collaboration between the mentor and mentee, mutual trust and *"being on one wave"* (CC11) are recognized as primary elements. Constructive interaction between the mentor and mentee allows to avoid situations where a new career counsellor is *"thrown in the sea and must swim as he/she pleases"* (CC14). *"It is possible to manage without it [mentor's support], but then it is stressful. ... a person with work experience and education will cope. I don't doubt. But the question is - will it work for him/her. Will she do it with joy and gain satisfaction or will she be under such stress that eventually will say - why do I need all of this"* (CC14). Therefore, knowing his/her mentor, the new career counsellor can communicate with him/her finding out the needed information, and especially *"it is beneficial for more introverted personalities"* (CC7). *"If you have a mentor, you allocate a specific time to meet with him/her. And it also gives a rhythm to the mentor - allocating time to the mentee ... to explain why, where to find, answer the questions"* (CC12). Thus, mentor support is a planned process in which both parties - the new career counsellor and the mentor take time out for each other while performing their daily duties, and solve topical issues that arise on a daily basis.

The respondents, revealing their understanding of the concept 'mentor' say that: *"A mentor is there for you when you need it, especially if you are a newcomer, and teaches different things, gives advice. [...] if you get stuck or if you need help or some examples, the mentor is there"* (CC9); *"A more experienced employees who can share their experience. [...] He/she is already working in that position, and he/she knows the nuances I can face"* (CC14); *"A mentor is the one who [...] guides you in the profession"* (CC1), who *"supports, advises"* (CC5) and *"is a teacher and at the same time a pair"* (CC12).

Thus, the mentor is an experienced career counsellor, the first contact person in the cases when new career counsellors have questions or uncertainties, and he/she is part of introducing the new counsellor with his/her duties, i.e. helps to determine priorities and things to-do, introduces to other colleagues, participates in organizing work in the first few weeks. An experienced career counsellor is a professional, who has at least one year experience in career counselling and who is an employee of a given organization, because *"in any profession we choose, there are specific moments that may not be recorded in the theory and that can only be understood via experience. I believe it is very valuable if someone who is already working and has already encountered similar situations would share his/her experience and knowledge. I find it very practical. Absolutely."* (CC1) The mentor is also the one who informs the rest of the staff within the organization about the new employee and his/her responsibilities.

Referring to the competencies and character traits required for a mentor, respondents refer to the ability to be *"well-balanced, calm"* (CC5), *"organized"* (CC7), a member of the particular organization with experience that *"helps to get included,... adapt to the system and transfer all needed and important information"* (CC8); *"who asks if this office is too cold, or have you already asked for technical equipment, or have you asked your boss for your business cards, etc., introduces some people to you [...]. As a newcomer I don't know what I am due. This is what the mentor clarifies and provides"* (CC12), and *"gives feedback"* (CC1).

The interview data also reveal unsuccessful mentoring experience. This happens when: 1) there are several people identified as mentors, creating confusion about whom to ask; 2) a mentor is someone who has resumed his or her job following a long period of absence and is not yet in touch with the organization's current affairs and trends; 3) during the adaptation period, the mentor has taken annual leave; 4) good contact/cooperation has not developed



between the new career counsellor and the mentor due to sharply contrasting personality traits; 5) the mentor and the new employee have different needs; or 6) the mentor has not perceived the needs of the new employee.

Adaptation. The research data points to two dominant support aspects for new career counsellors when starting their career: the need for an adaptation time and an adaptation plan. *"We came up with a document that is basically for those who starting work. Why did we develop such a document? Because in everyday life it became clear that when a new person comes to us, it is difficult for him/ her to adjust due to the vast amount of information"* (CC7). When starting a job, the new employee must be familiar with and understand the organizational culture and traditions, organization's vision, goals, content of services provided and responsibilities related to the job, as well as written and unwritten values of the organization. This information cannot be perceived and understood in one or two days, therefore it is important to give the new career counsellor enough time to become acquainted and to understand it. The first days of work are described as full of stress and anxiety: *"I was thrown in the sea and had to swim as I please"* (CC14). On the one hand, young career counsellors demonstrate a desire to perform their job well and in good quality, but on the other hand, they lack information about the organisation's internal culture and requirements. The mentoring support received during the adaptation period reduces the risk for new career counsellors of not achieving their own and organizational goals, and allows them to maintain their employment relationships, as opposed to *"leaving the organization in a year's time or even less"* (CC11).

According to the opinion of respondents, the optimal adaptation period is from two weeks (20%) to six months (47%). The indicated average optimal adaptation period is between two weeks and one month. *"It's important just to watch at how things work and to understand the system, to orientate oneself, to get to know colleagues, to observe the relationships"* (CC9). *"It takes a couple of months to understand the system, the documents, the colleagues and so on"* (CC14). *"Adaptation time depends not only on the new career counsellor, but also on the organization and its size"* (CC5). Summarizing, the length of the adaptation period may have individual approach and vary in each case, but it should not exceed two months in total.

60% of respondents point to the need to develop a specific adaptation plan. The objective of the plan is to systematize the integration of the new career counsellor into a particular organization, gradually gaining the most important information for starting the job and fulfilling the duties. It is important to prioritize the content - *"not to overload with information, but to start by focusing on the topical issues"* (CC10). Respondents suggested that the first two adaptation weeks require a specific plan: *"a very detailed plan with specific tasks, times and dates, but later the plan can become more general"* (CC11). *"It would be great to come up with guidelines that would state – tasks: this and that; the first block: tell about this and that and that; the second block: show these and those normative documents providing the list of these documents; the third block: work with the programme, etc"* (CC11). Such adaptation plan not only helps the mentee, but also helps the mentor to remember the key issues that the new career counsellor needs to be communicated about, helps to set priorities and to organize all the information that needs to be shared according to importance and graduality. *"There is a great deal of information and if it is passed on all in one go, the head of the new career counsellor starts spinning"* (CC3). Career counsellors point out that in the adaptation plan there is no need to specify any specific completion dates. As the needs, knowledge, skills, abilities and personality traits of the new career counsellors are different, it is recommended that the plan is discussed and agreed upon together with the mentor for each subsequent appointment. The respondent, who had an adaptation plan when starting her professional activity, said it was easy for her to get started because the plan stated *"what needs to be learnt and done, and it clarified the tasks to be performed, but the ability to set the deadlines by myself increased the desire to prove myself at the particular workplace"* (CC12).



Work environment. The data point to two starting points concerning understanding of the work environment: firstly, understanding the goals, tasks, culture, responsibilities and available resources of the organization, and secondly, understanding the flow of the documentation within the organization. *“It is important that the new employee learns the specifics of the job and that the new employee learns the organizational culture, including unwritten norms”* (CC7).

In the first months, it is important to understand not only one's own areas of responsibility, but also those of other employees, and understand the relationship with the management, which can be a profound factor in a person's choice to join the organization: *“I agreed to work in this particular organization's branch because I liked the branch manager”* (CC4). For a new professional it is important to understand whether the management style of the particular organization is acceptable and whether he/she will be able to continue his/her professional activity under the certain circumstances. *“It is always important to have clear borders for professional activity. I always clarify what rules govern the activities of the organization”* (CC12). Organizations and companies offering career counselling services tend to be diverse, and as career counsellor is representing the particular organization to the clients, therefore it is important that personal beliefs and values do not conflict with the values and attitudes of the organization: *“Every organization has its own specifics, and there are nuances”* (CC5).

Another aspect stressed by the respondents is the need to know the resources available to the organization. It is important to understand the types of materials available to a career counsellor for using when working with clients, and understand how to work with these materials. *“The materials help, and in some ways support and complement the discussion part of the consultation”* (CC12). The available resources, such as stationery, office equipment, availability of computers etc. also determine the work environment.

In interviews, 40% of respondents talk about the need to get acquainted with the ways the documents are processed, circulated and stored in the organization, as within each organization there are certain rules governing the provision and circulation of reports, feedback and other documents related to career guidance. For example, in Liepaja (Latvia) Comprehensive School X, a career counsellor does not have specific guidelines for documenting clients' progress and for recording the nuances of individual career guidance sessions. The career counsellor creates a career folder for each client in his/her own way, in which he/she gathers the most important information. In its turn, the requirement of the Estonian Unemployment Fund organization is to record the initial purpose of each individual career counselling session, a summary of the counselling session and its main conclusions, as well as further tasks in the intranet environment of the organization. These two examples illustrate the practice of two different organizations in documenting the work of a career counsellor, demonstrating the fact that it is essential for a new career counsellor to understand the organization's position on the issue, and the nuances of the procedures for preparing and storing documents, if such procedures exist in the organisation.

“I used to run seminars in schools. I didn't write any descriptions, did not give feedback to each participant in writing. Now, at my work, career counselling is done differently, [...] every client gets a feedback” (CC5). As each client's individual progress, even if it is a group career counselling session, is captured on the intranet (digital environment), for a new career counsellor it is important to be familiar both with the organization's intranet system and the format and style of how the information and data should be entered from the very start. *“We have a description of how the whole system works, but there are so many pages and it is written in such complicated language. I sat for a very long time and I tried to understand, but the big plus was that there was a person [mentor] who explained the most essential things, and then in the work process we already looked at what is still needed”* (CC5).



Professional development. 73% of respondents point to the need for professional support and encouragement at the beginning of their careers. The need for professional development support is evident in two areas: in acquiring professional experience and competence in the early stage of professional activity (73%), and in acquiring a good practice or "peer shadowing" (67%).

The previous work experience of interviewed career counsellors (teacher, psychologist, journalist, etc.) illustrates their different backgrounds and professional interests, but anyway all point to a lack of experience and the need for professional development guidance in career counselling. These needs are individual and specific for a particular person: for some – to reduce stress (fear), for some – to reduce uncertainty about one's own skills in leading a group counselling session, etc. *"I don't know, I have no experience. I clearly remember being afraid of these group sessions. I was a little scared: the group and I. [...] I remember I was afraid"* (CC6). *"From the very beginning I felt uncomfortable when leading a group session. I think after about a fifth group I realized that I am managing it ok"* (CC10).

It takes time to understand and develop one's own working style, methodology and materials, and to perfect and adapt the materials available. This aspect corresponds to the adaptation time aspect described above. Only by trying, experimenting, making mistakes, and by changing strategies, methods and approaches new career counsellors can come to an understanding of how to work with the clients and what is an effective career counselling.

The greater are the resources for a career counsellor, the easier it is for him/her to choose the most appropriate approaches and methods at any given time. *"It is possible to sit down and learn the theory in the couple of days. To open the textbooks and read. The other thing is how you will put it into practice and how it will work for you, because only working practically can one develop the ability to respond appropriately and effectively to different career counselling situations, not to get confused and to find ways how to support the career decision making of clients"* (CC5).

According to the career counsellor's job specifics, there is always a need to follow the latest trends of the labour market, and it is important to clarify what is the position of the particular organization on the issues of future education and professional development. *"I want to say my employer always said 'yes' and supported me. I went to two youth seminars, and they [the organization] paid for one of them, but the other one was free of charge, but it took place during the working hours, thus I was out of work for a week. So they were really supportive in that regard"* (CC8). It is important that the management of the organization, together with the career counsellor, identifies the areas where there is a need for improvement, and that it would look for ways how to ensure the development and improvement in these areas for their career counsellors. *"Once a year we have conversations about my development and how I feel at work, what tasks I have, what are the needs. It's like a self-analysis"* (CC13).

Finding answers to the question about the necessary support for young career counsellors in the early stages of their careers, there was indications to the need of learning good praxis from colleagues or so-called "shadowing". *"Shadowing is something where you learn the most. You watch, write down the things that are important to you, take notes, ask questions"* (CC12). Observing the work of colleagues helps the new career specialist to understand the work organization, system, it is an opportunity to see different work styles, methods, materials used in practice, and to observe the consulting process itself.

"Shadowing can also be seen as a transfer of good practice, meaning that a new career counsellor has the opportunity to observe what is working well in the counselling process and then to continue using the information in



one's own professional activity" (CC2). Watching colleagues is a great way for exchanging experiences: "I listened to the tasks the career counsellor used, and observed how she does her consultation work. [...] I just felt the atmosphere. We also exchanged ideas - I told her some of my ideas and tasks, she told me hers" (CC5). Knowing the examples of best practice helps new career counsellors to develop their own basic model for both individual and group counselling, to develop their own style, as well as to gain insight into experiences that they do not own yet. "She showed me how to organize different types of seminars: how to work without a presentation in the case computer breaks down, how to lead a group with young people, and how to conduct a job interview group" (CC10). Observation of the colleagues, in addition to practical ideas, also helps to understand better oneself – what personality traits are advantageous for a successful career counsellor, and which not: "I took from her something that corresponded to my character, and also on the contrary - I looked and thought that in my work some things I would probably do differently" (CC5).

When shadowing colleagues, not only the values of the organization are passed on but also the information about the services offered and provided by the organization. "Shadowing helps to understand the system in which you need to work in" (CC6). The main areas of the adaptation period and their contents are summarized in Table 2.

Table 2. Characteristics of the mentoring support aspects

Mentoring field	Support aspects	Content, its organization
Mentor's professional experience	Trust	Planning the cooperation time. Agreement about communication and confidentiality. Choice of mentor and mentee. Expectations of the mentor and mentee. Identifying, understanding and meeting the needs of the mentee
	Cooperation	Mentor has at least 1 year of experience in career counselling in the particular organization. Constructive interaction between the mentor and mentee. Agreement on communication style and activities, frequency and length of meetings, relationship borders, responsibility and action if cooperation turns to be unsuccessful. Feedback, reflection.
Adaptation	Adaptation time	From 2 weeks to 6 month, optimum – 2 month, maintaining individual solutions
	Adaptation plan	Flexible plan for first two adaptation weeks, including objectives, tasks, and respecting possibility to determine the timetable individually, together with the mentor
Work environment	Organizational goals, tasks, organizational culture and values, duties and resources of employees	Clarification of areas of responsibility. Communication with the organization's management, understanding the management style. Coherence of personal views and beliefs with organizational values. Getting to know the physical environment and resources of the organization, their access. Understanding the communication at workplace, and getting to know the colleagues.
	Circulation of documents	Processing, storage, circulation of reports, deadlines, feedback, employee contacts and other documents related to career counseling. Learning work organization, requirements, normative documents and their circulation, as well as use of electronic programs used in the organization.
Professional development	Professional experience and competence	Identification of individual needs, development of individual work style, planning of further education and professional development
	Observation of colleagues "shadowing"	Development of a basic consulting model, self-understanding, organizational values, understanding the services and problem solving skills.



Conclusions and suggestions

When starting an employment relationship and becoming part of the particular organization's culture, the new career counsellor is developing his/her professional career. The study confirms the need for mentor's support in the early stages of a career, providing professional support for communication, receiving and understanding the information, ensuring immediate response to issues and problem situations that emerge at the workplace, and responding to the individual needs of each new career counsellor. The mentor assists the new career counsellor in developing the knowledge, skills and abilities necessary for the successful fulfilment of the duties, in addition to opening up the knowledge that is only available "in the heads of certain employees" (Tūliki, 2005) and which is not formulated in documents, instructions etc.

When choosing a mentor, one of the most important preconditions is mentor's ability to interact with mentees and build mutual trust. The mentor should have at least 1 year of experience in a particular organization, he/she must be competent in the current events and trends within the organization, and capable of understanding the needs of the new employee. It is the responsibility of the management of the organization to appoint such career counsellor - mentor who: 1) is willing and ready to be a mentor to a new career counsellor; 2) is ready to find and devote extra time to work and communication with the new career counsellor, in addition to his/her direct job responsibilities; 3) has not planned a period of absence for a longer period of time (more than three working days) during the adaptation period.

The mentor together with the mentee develops, reviews, edits, and adjusts the adaptation plan to the needs of the new career counsellor. One-month adaptation period for a new career counsellor is considered as optimum.

In order to start professional activity, new career counsellors need support in two key areas, namely, getting to know the work environment and in the area of professional development, meaning the need to accumulate experience while developing the existing competencies.

Getting to know the work environment includes: 1) understanding the goals, tasks, culture, values, traditions, communication styles of the organization; 2) acquisition of work organization, requirements, normative documents and their circulation, as well as use of electronic programs used in the organization. Professional development is also understood as the need to accumulate personal experience and learn good practice examples from colleagues by "shadowing" them. Observation of colleagues' work and learning from good practice is possible in cases when the young career counsellor has a flexible work schedule during the first 2 weeks of adaptation time. Then the new career counsellor has the opportunity to choose when and where to participate, what to observe, or when to respond to the employer's encouragement to observe other colleagues and the work within the organization.

Suggestions for new career counsellors:

- 1) The length of adaptation period should not be less than 2 weeks, during which the direct duties do not get performed in full. During the adaptation period one must get to know the organization as a whole, its culture, values, staff, regulations, requirements, resources available, and learn how to use the computer programs used by the organization, etc.;
- 2) It is important to express initiative and to observe the professional activity of other career counsellors during the adaptation period including individual consultations, group counselling, e-counselling, counselling outside the organization;
- 3) Ask the organization's management to allocate a mentor who helps to orientate within the organization as a whole, provides support and is ready to share his/her experience and materials;



4) Together with the mentor, develop an adaptation plan that outlines the activities within a certain timeframe, reaching a specific agreement on meeting times and receiving the feedback.

Suggestions for the mentors:

- 1) Be prepared, besides the direct responsibilities, to devote time for introducing a new career counsellor into the organization's culture, requirements, resources available to the organization, colleagues and their responsibilities, informing about the organization's existing but unwritten traditions, etc.,
- 2) Be prepared to share your experience, materials and knowledge, which can help the new career counsellor to start his/her professional career in a particular organization and to join the collective;
- 3) Coordinate an adaptation plan together with the organization's manager or other responsible persons, follow the adaptation process, providing feedback and adjusting the adaptation plan according to the specific needs of the new career counsellor for his/her successful adaptation in the organization.

The findings and conclusions are relevant to the Latvian context, as the focus of the study was on the work of career counsellors in an organization as a whole. The study focuses on improving career counsellors' work in their early stages of professional activity, identifying the difficulties the new career counsellors are experiencing and what might help to overcome them. Thus, there are no geographic, political, ethnic or other factors that would influence or question the transfer of research results to the Latvian context. On the contrary, keeping in mind the lack of mentor support for young career counsellors in Latvia as well as the fact that there are no adaptation programme/ plan developed for integrating new career counsellors into the work environment, the Estonian experience provides an opportunity to adopt good practice examples and recommendations for successful adaptation of career counsellors in the early stages of professional activity also in Latvia.

References

- Adaptācijas būtība un jauna darbinieka adaptācija organizācijā.* (n.d.) Available: <http://www.scripgroup.com/limba/letona/234/ADAPTACIJAS-BTBA-UN-JAUNA-DARB52863.php>
- Akopova, Ž. (2006). *Mentora palīdzība skolotāju komandai*. Rīga, RaKa.
- Chambers English Dictionary* (2015). Chambers, 5th Ed.
- Fortino, C. (2006). Sustaining Leadership Through Mentoring: Tracing the Cascade of Influence. In: *Education & Sustainable Development: First Steps Toward Changes*. Pipere, A. ed. Daugavpils universitāte, pp.118.-133.
- Futures Mentoring Programme. Handbook for Mentors and Mentees* (2014). The University of Sheffield. Available: <https://www.google.com/search?client=firefox-b-d&channel=crow&q=Suzanne+Faure>.
- Geske, A., Grīnfelds, A. (2006). *Izglītības pētniecība*. Rīga, LU Akadēmiskais apgāds.
- Gibbon, A. (n.d.) *Mentoring. Two pages of mentor and mentoring definitions*. Available: <https://www.andrewgibbons.co.uk/free-resources/mentoring/>.
- Jaunzeme, I. (2017). *Karjeras attīstības atbalsta sistēmas darbība Latvijā 2013. -2017.gadā*. Rīga, VIAA.
- Johnson, W. Brad, Ridley, Ch.R. (2018). *The Elements of Mentoring: 75 Practices of Master Mentors*, 3rd ed. NY: St.Martin's Press.
- Kristapsone, S. (2014). *Zinātniskā pētniecība studiju procesā*. Rīga, Biznesa augstskola Turība.
- Lidere. Mentorings* (n.d.) Available: <https://www.lidere.lv/mentorings/>
- Manen van, M. (2018). *Researching Lived Experience. Human Science for an Action Sensitive Pedagogy*. Second Edition 2nd Edition. The Althouse Press.
- Mentoru klubs* (n.d.) Available: <https://www.facebook.com/MentoruKlubs/>



- Ngang, T., Kanokorn, S. Prachak, B. (2014). *The Perspective of School Principals on Novice Teacher's Collective Work*. Available: www.sciencedirect.com/science/article/pii/S1877042814006478
- Noteikumi par pedagogu profesiju un amatu sarakstu. MK noteikumi Nr. 354, 2011.gads, 10. maijs. Available: <https://likumi.lv/doc.php?id=229913>
- Parsloe, E. (1992). *Coaching, Mentoring and Assesing: A Practical Guide to Developing Competence*. London: Kogan Page.
- Phillips- Jones, L. (2001). *The New Mentors and Proteges. How to Succeed With the New Mentoring Partnerships*. Coalition of Counseling Centers.
- Pipere, A.(2011). *Ievads pētniecībā. Stratēģijas, dizaini, metodes*. Rīga, RaKa.
- Pipere, A.(2016). *Kvantitatīvās, kvalitatīvās un jaukto metožu pētījuma stratēģiju salīdzinājums*. No: *Pētniecība: Teorija un prakse*. Martinsone, K., Pipere, A., Kamerāde, D. (zina. red.) Rīga: RaKa., 2016., 84.-117. lpp.
- Rokasgrāmata mentoriem* (n.d.) Pieejama: <https://skolas.lu.lv/mod/resource/view.php?id=20582>
- Tūliki, J., Tūla, L., Jari, R. (2005). *Mentoringa daudzās sejas*. SIA, Lietišķās informācijas dienests.
- Urdze, T. (n.d.) *Mentorings*. Available: <https://www.metodes.lv/raksti/mentorings>



The Role of Education in the Formation of Tax Ethics in Azerbaijan

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Abstract

This paper discusses the importance of tax ethics, as well as the impact of education on it. The impact of tax-oriented education on tax ethics was determined in the case of Azerbaijan. For this purpose, it was applied a questionnaire survey to 250 students studied at the Academy of Public Administration under the President of the Republic of Azerbaijan between 2017 and 2019 years.

The collected data were analyzed descriptively, and the hypothesis was tested using the Paired Samples Test. Cronbach's Alpha conducted to verify the validity of the research. Analyzes and tests were carried out electronically using the SPSS 16.0 software. As a result of empirical research, it turned out that the attitude towards taxation was higher after passing tax classes.

Keywords: tax ethics, taxation education, tax attitude, empirical study, Azerbaijan.

Introduction

The taxpayer's own consent and willingness to pay taxes, rather than the coercive power of the state, is one of the important factors in the economic and social sustainability of the state in the process of tax collection (Kalendiene and Pukeliene, 2011). There are too many variables that affect the collection of taxes in full. One of these variables is the tax attitude of taxpayers and their behavior towards tax. Tax perceptions and taxpayer attitudes towards taxation are formed in the process of social interaction and are passed on from generation to generation (Murphy, 2005).

State always wants to minimize the negative perception and behavior of taxpayers in relation to taxation and to ensure that they pay taxes with their own consent on time (Alm and Torgler, 2006). Providing proper tax returns by taxpayers and paying taxes on time is called "tax compliance" (Roth et al, 1989). The level of tax compliance in society is actually associated with the existing of tax ethics of citizens. Since non-compliance behavior among taxpayers can sometimes be a reflection of a low level of tax ethics (Torgler 2006). In order to increase tax ethics, each state can implement various regulatory or control measures. However, the success achieved with a particular method in one government may not have the same effect in another state. Therefore, in the literature, tax ethics and the factors affecting it may vary and the methods used to improve it may be different. In the literature, one of the widely discussed factors affecting tax ethics is education. Traditionally, education can be expressed in the form of actions and efforts aimed at achieving positive attitudes and behavior towards people and society. There is always a need for training programs that help to raise awareness of taxes and increase tax ethics, especially in societies with low tax compliance, to ensure a positive attitude of taxpayers towards taxes. Training taxpayers in financial matters can contribute to the positive development of tax behavior, contributing to tax compliance (Carley and Maxwell, 2006).

In general, education has two opposing functions, both to preserve and maintain cultural values, and to make changes (Ottoway, 1962). In order to ensure the optimal occurrence of these two conflict situations, the government should organize effective training in tax ethics. In order to increase tax ethics, training programs



should be conducted to protect the positive cultural values of taxpayers and decrease negative attitudes and behavior.

Considering the importance of education in tax ethics, the main question of the study is: “Does education affect tax ethics in Azerbaijan?”. Determining the correct answer to this question may contribute to shaping the state regulations and increasing the efficiency of taxation in the country. Based on the main question, we test the following hypothesis.

H – Tax-oriented education does not have a significant impact on tax attitudes.

The survey will show us whether the hypothesis of the study is true or not, and we will be able to determine the effect of education on tax ethics in Azerbaijan. In this context, first of all, tax ethics and the factors that influence it are considered, and studies examining the impact of education on tax ethics are analyzed. To assess the impact of education on tax ethics and to prove the research hypothesis in the last section of the study paper the survey results of 250 people among students were given. Since the influence of education on tax ethics in Azerbaijan has not been empirically investigated, this study will make a great contribution to the field.

Literature Review

Foundation studies on tax ethics was laid in the 1960s by the Cologne School of Tax Psychology, founded by German scientists under the leadership of Schmolders. The members of this school tried to connect economics and social psychology, and considered tax ethics as voluntary compliance behavior (Alm and Torgler, 2006). Schmolders defines tax ethics as the timely and complete discharge of duties and obligations related to taxation (Torgler, 2003).

Tax ethics is defined by many researchers as an intrinsic motivation to pay taxes. Here, tax ethics is intrinsically motivated without external pressure. Accordingly, it is assumed that people will either pay the tax voluntarily or not pay it, given the risk of being caught and punished (Aktan, 2006). Various factors affecting tax ethics are shown in the literature. Even if these factors are very broad, some of them can be systematized as follows (McGee, 1999; Alm and Torgler, 2012, Besley and Persson, 2014):

- sense of justice of taxpayers,
- social status of taxpayers,
- religious beliefs of taxpayers,
- simplicity and clarity of the tax system,
- justice in the tax system,
- believing in the necessity and transparency of government spending,
- democracy,
- quality of public services,
- the level of education of taxpayers.

All the above factors are important for establishing moral values forming attitudes towards tax ethics and indicate the need to regulate (if possible) these factors in order to collect the necessary tax revenues. As can be seen from the above list, education is one of the most important factors in the designing of a tax-compliant society. Extensive research is being conducted in both developing and developed countries on this subject and the direction of the relationship between education and tax ethics is tried to be determined.

Despite, Eriksen and Fallan (1996) mentioned that there may be people with a low level of education who have a high knowledge about taxation; one group scholars mentioned that there is a positive relationship between education level of taxpayers and tax ethics (Alm, Jackson and McKee, 1992; Torgler et al., 2008; Demir and Cigerci, 2016). In other words, as the level of education increases, the understanding ability to tax laws rises and compliance with legal changes accelerates. It is argued that such taxpayers are more aware of their obligations



(Lewis, 1982; Ipek and Kaynar, 2009). In this context, it can be emphasized that educated taxpayers will more consciously assess the benefits and services provided by the state, and, consequently, this will increase their tax compliance (Shahin, 2009). However, some studies have found the opposite and emphasize that a more educated person is no longer willing to pay taxes (Dubin, Graetz and Wilde (1990); Tauchen and Witte, 1992; Chan et al, 2000). The reasons for the differences in the research results are due to some behavioral factors that guide taxpayers' opinions in different directions. McGee (2012) explains these contradictory conclusions in a way that, wealthier taxpayers tend to be more educated than others, and they may be more prone to observing the law. On the other hand, the rich are taxed more than the poor, and paying a huge amount of taxes makes them consider tax evasion a more positive behavior.

Chan et al. (2000) observed a negative correlation between education level and tax compliance by examining 157 student surveys collected from universities in the USA and Hong Kong. Compared to surveys of students from six countries, McGee and Ross (2012) identified the relationship between education and tax compliance. In their studies, the results have changed by country. The most opponents of tax evasion were people with lower educational attainment from Brazil, Russia and China, while those with a highest level of educational attainment demonstrate a higher tax ethics in India and the United States. However, in Germany, people with medium level of education exhibited the lowest levels of tax compliance. Preobragenskaya and McGee (2016) did research on demographic study of Russian attitudes towards tax evasion, and found that opposition to tax evasion was less among the higher educated people. In spite of all, Milliron (1985) found no connection between the level of education and tax ethics.

The impact of taxation knowledge directly on tax ethics has been determined by various studies. Extensive research has been conducted in Turkey to assess the impact of tax education on taxpayers' awareness. For example, Saglam (2013) sought to measure tax perceptions and tax awareness as a determinant of students' attitudes and behavior towards tax. This study was carried out on the last year students of Hittite University in Faculty of Economics and Administrative Sciences. The study showed that the tax perception of students was high. On the other hand, it was stated that if the public is informed about where the collected taxes are spent, the taxpayers' awareness will increase. In 2016, Teyyare and Kumbashlı conducted a questionnaire on first- and fourth-year students studying in the finance department of three universities to identify the level of tax awareness and tax ethics, and to determine the impact of taxation education. As a result of the empirical study, it was found that the fourth-year students had higher tax awareness and ethics than the first-year students of the Finance Faculty. Chichek and Bitlisli (2017) aimed to measure the impact of education on tax awareness of students. The impact of education on tax awareness was assessed by observing the differences between the two groups of students (those with and without tax education). According to the analysis results it was clear that tax attitudes and tax awareness of the students who had education were more positive than the students who did not have education.

Analyzing the impact of education on tax ethics in Azerbaijan, it appears that this issue has not been widely studied. In other words, these questions can be approached only theoretically, without empirical research.

Methodology of Research

The survey method was applied as part of the study, and third-grade students enrolled in the specialties of Economics, Management and State and Municipal Administration at the Academy of Public Administration under the President of the Republic of Azerbaijan in 2017-2019 were included in the study. 250 students took part in this survey. Students were asked to answer three questions – “What is a tax?”, “Would you like to give part of your income to the government as tax?” and “Do you think that citizens who do not pay their taxes are guilty?”. In order not to guide students, open-ended questions were used in the questionnaire. Students' own



statements were emphasized in the analysis. The study was conducted in two stages. At the first stage, students were asked to answer questions before passing the tax class. At the second stage, the same students again answered the same questions after completing the course 'Taxes and Taxation' for one semester. Thus, students' attitudes towards taxation before and after training was evaluated separately and taken into account for comparisons. Since open questions were used in the questionnaire, after collecting the answers, expressions of similar values were combined into one group and Statistics Package for The Social Sciences was used for analysis. The hypothesis was tested using the Paired Samples Test. The reliability of the scales used in the study was measured using the Cronbach's alpha test.

Findings

First, students were asked to indicate their gender and religious beliefs. This information is summarized in table 1.

Table 1. Gender and religion of students

	Gender		Religion	
	Female	Male	Islam	Dualist
Frequencies	122	128	174	76
%	48.8	51.2	69.6	30.4

As shown in Table 1, 48.8% of the students participating in the study are women and 51.2 are men; while 69.6% of the participants are Muslims and the rest are Dualists.

Question 1

In order to evaluate the tax perception of students, they were asked to answer the question: "What is a tax?". When the students' responses were studied, it became clear that the concept of taxation has a positive meaning for some students. Some students said that *"it is a civil obligation"*, *"it is money that we pay for environmental protection"*, *"it is a fee for public services, especially for the provision of health, education and safety services."* The other part of students showed a negative attitude and gave different answers to this concept. These answers are *"it is money taken from our income"*, *"it is a heavy burden for a citizen"*, *"it is a debt"*, *"it is a payment that we don't know where it is spent"*, *"it is a mandatory payment, which reduces our well-being"* and *"it is a burden that I have always thought about how to avoid it"*. These answers show that some students perceive tax as a negative phenomenon. Thus, the responses received from the students participating in the survey are systematized in Table 2.

Table 2. What is a tax?

Positive approach		Before education	After education
Citizenship duty	Frequencies	22	38
	%	8.8	15.2
Money to protect our environment	Frequencies	25	23
	%	10	9.2
Public service fee	Frequencies	73	109
	%	29.2	43.6
Negative approach			
Money collected from income (money that reduces our well-being)	Frequencies	75	50
	%	30	20.0
Heavy burden and debt	Frequencies	29	19
	%	11.6	7.6
Unnecessary expense	Frequencies	26	11
	%	10.4	4.4



As can be seen from table 2, while the proportion of those who attached a negative value to the tax concept before education was 52.0%, this level decreased after education and was 32%. On the contrary, the share of those who had positive approach increased from 48% to 68%. In other words, there have been marked positive changes in students' attitudes towards taxes after education. Before education, 51.1% of women gave positive answers about the value of the tax, after education this indicator was 65.6%. Growth rates were higher among men. Namely, 46.3% of men had a positive attitude before education, while this figure rose to 70.4% after education. By the way, before the education, 42% of Muslims showed a positive attitude towards taxation, and after education, it rose to 64.3%, whereas for dualists this number was 61.8 and 76.3%, respectively (See Appendix 1 and Appendix 4).

Hypothesis testing

To prove the hypothesis of the study we use Paired Samples Test. Using this test, we can find whether the mean values of two metric variables are equal or not, and determine the p-value.

Table 3. The result of Paired Samples Test

Paired Samples Statistics										
		Mean	N	Std. Deviation	Std. Error Mean					
Pair 1	What is a tax? (before education)	3.57	250	1.355	.086					
	What is a tax? (after education)	3.09	250	1.264	.080					
Paired Samples Correlations										
		N	Correlation				Sig.			
Pair 1	What is a tax? (before education) & What is a tax? (after education)	250	.636				.000			
Paired Samples Test										
Paired Differences										
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T	df	Sig. (2-tailed)	
					Lower	Upper				
Pair 1	What is a tax? (before education) - What is a tax? (after education)	.480	1.120	.071	.340	.620	6.776	249	.000	

Table 3 points that the p-value is smaller than 0.05 and the “t” value is significant. In other words, there is a statistically significant difference between the mean scores before and after tax education with a probability of 95%. This shows that the research hypothesis is rejected and a relationship does exist between tax education and tax attitude.

Question 2

The next question asked to students was “Would you like to give part of your income to the government as tax?”. The question focuses on examining students’ attitudes towards voluntary tax compliance. The responses obtained are systematized in Table 4.

Table 4. Would you like to give part of your income to the government as tax?

		Before education	After education
Yes	Frequencies	106	148
	%	42.4	59.2



No	Frequencies	93	71
	%	37.2	28.4
I'm not sure	Frequencies	51	31
	%	20.4	12.4

According to Table 4, the number of students who answered “no” and “I am not sure” before education was 57.6%. After tax class, this ratio dropped to 40.8%. In addition, there were no students who changed their positive thoughts after learning. 46.7% of women and 40.0% of men wanted to give part of their income to the government as a tax before tax class. After education, this figure increased by 56.6% and 61.7% respectively. The same trend was observed between Muslims and dualists. On this question, 35.6% of Muslims and 57.9% of dualists said “yes” before education. The number of correspondents increased in both groups after class and amounted to 52.9% and 73.7%, respectively (See Appendix 2 and Appendix 5).

Question 3

The last question sought to explore the students’ opinion on tax evasion. They were asked to agree or disagree with whether citizens who do not pay taxes are guilty. The answer to this question is shown in table 5.

Table 5. Do you think that citizens who do not pay their taxes are guilty?

		Before education	After education
Yes	Frequencies	88	139
	%	35.2	55.6
No	Frequencies	118	80
	%	47.2	32.0
I'm not sure	Frequencies	44	31
	%	17.6	12.4

Table 5 reveal that the number of students who answered “yes” before education was 35.2%, while after tax class, this ratio increased to 55.6%. The results show that students are becoming tougher against tax evaders. Before education, the distribution of “yes” by sex was 40.0% and 32.5%, respectively, among women and men. After education, these figures changed and amounted to 54.1% for women and 57.0% for men. After the tax class, the number of “yes” among Muslims increased from 28.7% to 48.3%, and among dualists, from 50.0% to 72.4% (See Appendix 3 and Appendix 6).

Hereby, Independent Samples Test has been applied using the SPSS software package to determine statistical evidence between religious beliefs and tax attitudes. Since the probability value of t-statistics was smaller than 0.05, it was determined that there is a statistically significant relationship between tax education and religion with 95% confidence. However, such link was not determined by gender. Because the probability value of t-statistics was higher than the significance level of 0.05 (See Appendix 7 and Appendix 8).

Cronbach's Alpha test

At the end of the study, the Cronbach's Alpha test was conducted to verify the validity of this survey (Table 6).

Table 6. Cronbach Alpha Coefficient

Case Processing Summary				Reliability Statistics (before education)		Reliability Statistics (after education)	
				Cronbach's Alpha	N of Items	Cronbach's Alpha	N of Items
Cases	Valid	250	100.0	.892	2	.952	2
	Excluded ^a	0	.0				



Total 250 100.0

a. Listwise deletion based on all variables in the procedure

According to Cronbach's Alpha, the relationship between categorical variables is significant because it is above 0.7. The alpha value before education is 0.892, and after education is 0.952. Thus, a high value of alpha indicates that this survey is very reliable.

Discussion

As can be seen from the results, taxation education has had a positive impact on students' tax attitudes. This result was similar to the results of the analysis of Teyyare and Kumbashlı (2016) and Chichek and Bitlisli (2017). Considering that the students will be future taxpayers (even some of them are taxpayers), their attitude towards taxation is very important because it reflects their tax ethics.

As mentioned above, the duration of the tax class was one semester and during this period students collected a huge amount of information on taxation. Throughout the program, students acquired a solid theoretical base in the field of taxation. Students received information about the basic principles of taxation, especially equity. At the same time, the functions of taxation and their importance were discussed. Students read the materials and discussed the possible positive and negative effects of each function from different angles. In addition, they discussed the main features of a flat tax and a progressive tax, as well as their advantages and disadvantages. Possible impacts on taxpayer behavior were also discussed in the context of tax competition, tax evasion and tax justice. Moreover, while studying the tax system of Azerbaijan – tax code, tax rates, the form and time of collection, the rights and obligations of tax authorities and taxpayers, as well as the implemented reforms for effective tax administration; Students received general information about the tax systems of foreign countries. The share of income tax, consumption tax and property tax in the total amount of tax revenues and their rates were discussed for different countries. Social expenditures of these countries were also analyzed for international comparison using data from the OECD, WORD Bank and official websites of tax authorities.

Information about foreign countries was collected by a group of students as a subject of research paper. They could choose foreign tax systems that interested them. But they had to choose at least one developed country, one developing country, and one Islamic country. After analyzing different countries in different classes, students studied the tax systems of the USA, Canada, Norway, Sweden, Turkey, Russia, Germany, Italy, China, Japan, Australia, Saudi Arabia and Iran. At the same time, reading various articles on tax ethics, tax evasion and tax avoidance, students got acquainted with the main factors that influence these issues, as well as the impact of these issues on the economy and society.

In the light of the tax information received, the attitude of students towards taxation has changed significantly. The students were asked about the reason for the change. Students who would like to give part of their income as a tax generally said that *"we understood the functions and significance of taxes for whole society."* Those students who did not change their opinion and answered "no" and "I am not sure" generally said that *"I would like to manage my money myself"* and *"budget transparency is not satisfactory"*. After education, the total percentage of these students, who said they did not want to give their income as a tax, and they were not sure about this case, accounted for 40.8 percent. The majority of these students mentioned that they did not believe budget transparency. To summarize, some of the students' answers were as follows.

If I hide my income, I cannot get a bank loan when I need it. Therefore, I must correctly record my earnings.
(Student 1)



I am a person who is against the tax. If everyone fulfills the citizenship (social) responsibility properly, there is no need to collect money through taxes. (Student 2)

I personally would agree if I knew that the tax is used for the right purposes. As a brief example, I think it is enough to show people working in government bodies or tax authorities who drive cars worth hundreds of thousands of manats with low salaries. (Student 3)

The government is already implementing the necessary tax expenditures. I cannot understand those who hide their income and do not pay taxes. (Student 4)

If it is a well-organized government, I can pay taxes. Taxes should be properly used and serve the welfare of taxpayers. That is, if the law is respected, the tax must be paid. Because in legislation, the welfare of the people is preferred. If there is a bribe, I do not want to pay taxes. (Student 5)

I agree to pay if justice is achieved. (Student 6)

I received a free education, so I have to pay taxes so that others can get an education like me. (Student 7)

To be honest, if the tax payment would be voluntary, I probably would not have paid. Regardless of how much income is received, people's needs are non-exhaustive, and as income grows, individual needs also increase, so I prefer to meet my own needs, rather than pay taxes. But if everyone thinks so, the government will not have the necessary resources to carry out its functions. Because it is known that taxes are the main income of the state. However, in the current situation, few people think about the activities of the state. Some people believe that this is not their problem; it is a problem of the state. (Student 8)

Revenues must be fairly distributed in order for our society to develop. Therefore, everyone must pay taxes on time and in full. (Student 9)

We need to think about our world. We must pay taxes so that the state can protect forests, rivers and the sea. (Student 10)

The state takes a tax and spends it on the necessary directions, eliminates certain gaps and shortcomings. Some people may say that they do not want to pay taxes because they will spend them on useful issues. For example, giving money to a family in need or educate anyone using this money. But these words will remain just a word. The key role of the state here is to force people to pay. People have to pay part of the income to the state because it is obligatory payment, on the other hand state should benefit from it in the most efficient way. (Student 11)

Thus, during the discussion, it turned out that the attitudes of most students towards taxation will be positive if their discontent disappears. This result is similar to the result of a study conducted by Saglam (2013), which showed that if transparency of budget expenditures is ensured, taxpayer awareness will also increase.

Conclusions and Recommendations

This study clearly demonstrates the level and direction of the impact of education on tax attitudes, which are a reflection of tax ethics. The result showed that the research hypothesis was rejected. This result suggests that it is important to increase the tax ethics in society, giving education on the main issues of taxation, its functions and importance for students studying both in the field of economics and beyond. Implementation of "taxpayer training programs" for university students will have a positive impact on increasing tax ethics. In this context, it would be helpful to involve students in various social responsibility projects within the Ministry of Taxes and to ensure partnership between the Ministry of Taxes and universities.

Not only the Ministry of Taxes, but also various branches or institutions of the Ministry of Finance and the Ministry of Economy should support trainings to increase tax morale, and this should always be regulated by the state. For example, the Azerbaijan Export and Investment Promotion Foundation, Azerbaijan's Agency for the



Development of Small and Medium-Sized Enterprises should be more active in this issue, and various non-governmental organizations should be encouraged with grants to increase taxpayer awareness of tax education importance. On the other hand, on the basis of students' answers, other suggestions can be made to reduce the students' negative attitude towards taxation. They are:

- Implementation of financial amnesty. During this period, every citizen will declare their real wealth. After the financial amnesty, an annual income and assets declaration should be applied.
- Ensuring transparency and equal conditions in government procurement.
- Preparation and implementation of awareness raising activities (special courses at educational institutions, advertising companies, incentive and educational films, etc.) reflecting the importance of tax for the development of the economy and society as a whole.

There are some limitations in our study. To achieve high results, it would be useful to hold this questionnaire with a large number of students. It would also be good if the students had practical training in various financial institutions during the tax class period. Then we could observe and find more detailed information about the attitude of students towards taxation and identify suitable solutions to increase it.

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References

- Aktan, C. (2006). Vergi Psikolojisinin Temelleri ve Vergi Ahlakı, (Der.) C.C.Aktan, D.Dileyici ve İ.Y. Vural, *Vergileme Ekonomisi ve Vergileme Psikolojisi*, Seçkin Yayınevi, Ankara, 2006.
- Alm, J., Jackson, B.R. & McKee, M. (1992). Institutional Uncertainty and Taxpayer Compliance, *American Economic Review*, 82: 1018-1026.
- Alm, J., Kirchler, E., Muehlbacher, S. Gangl, K., Hofmann, E. Kogler, C. and Pollai, M. (2012). Rethinking the Research Paradigms for Analyzing Tax Compliance Behaviour, https://www.researchgate.net/publication/266318170_Rethinking_the_research_paradigms_for_analysing_tax_compliance_behaviour (20.04.2019)
- Alm, J., Torgler, B. (2006). Culture Differences and Tax Morale in the United States and in Europe, *Journal of Economic Psychology*, 27(2), 224-246
- Beron, K.J., Tauchen, H.V. & Witte, A.D. (1992). The Effect of Audits and Socioeconomic Variables on Compliance, In: *Why People Pay Taxes: Tax Compliance and Enforcement*, Ann Arbor: University of Michigan Press.
- Carley, K.M., Maxwell, D.T. (2006). Understanding Taxpayer Behavior and Assessing Potential IRS Interventions Using Multiagent Dynamic-Network Simulation,
- Chan, C.W., Troutman, C.S., O'Bryan, D. (2000). An expanded model of taxpayer compliance: Empirical evidence from the United States and Hong Kong. *Journal of International Accounting, Auditing and Taxation*, 9(2):83-103
- Chichek, U., Bitlisli, F. (2017). Vergi eğitiminin üniversite öğrencilerinin vergi bilinci ve farkındalığı üzerindeki etkisi: bir araştırma, *Muhasebe ve Vergi Uygulamaları Dergisi*, 2017-2
- Demir, I.C., Cigerci, I. (2016) Vergi Bilincinin Oluşumunda Eğitimin Rolü: İlköğretim Öğrencileriyle Amprik Bir Çalışma, *Yönetim ve Ekonomi*, 23(1), Celal Bayar Üniversitesi İ.İ.B.F.Manisa.
- Dubin, J.A., Graetz, M.J. & Wilde, L.L. (1990). The Effect of Audit Rates on the Federal Individual Income Tax: 1977-1986, *National Tax Journal*, 43(4): 395-409.
- Eriksen, K., Fallan, L. (1996). Tax Knowledge and Attitudes Towards Taxation; A Report on a Quasi-Experiment, *Journal of Economic Psychology*. Vol. (17), pp. 387-402.



- <http://www.casos.cs.cmu.edu/publications/papers/understanding-taxpayer-behavior.pdf> (09.04.2019)
- Ihsan Cemil Demir, İ.C. (2016). Vergi Bilincinin Oluşumunda Eğitimin Rolü: İlköğretim Öğrencileriyle Ampirik Bir Çalışma, Yönetim ve ekonomi, Cilt:23 Sayı:1 Celal Bayar Üniversitesi İ.İ.B.F. Manisa
- Ipek, S., Kaynar, I., (2009). Vergiye Gönüllü Uyum Konusunda Çanakkale İline Yönelik Ampirik Bir Çalışma, Yönetim ve Ekonomi, Cilt:16, Sayı 1, 173–190.
- Kalendiene, J., Pukeliene, V. (2011). Taxation and economic sustainability, Working Papers, n. 16, CIGE, legitimacy, and tax non-compliance. *Journal of Law and Society*, 32(1), 562-589.
- Lewis, A. (1982). *The Psychology of Taxation*. Oxford: Martin Robertson.
- McGee R.W. (2012) Education Level and the Ethics of Tax Evasion. In: McGee R. (eds.) *The Ethics of Tax Evasion*. Springer, New York, NY, pp 451-457
- McGee, R.W., Ross, A.M. (2012). Education level and ethical attitude toward tax evasion: A six-country study, *Journal of Legal, Ethical and Regulatory Issues*, 15(2):93–138.
- Milliron, V. (1985). A Behavioral Study of the Meaning and Influence of Tax Complexity. *Journal of Accounting Research*, 23(2), 794-816.
- Murphy, K. (2005). Regulating more effectively: The relationship between procedural justice,
- Ottoway, A.K.C. (1962). *Education and Society: An Introduction to the Sociology of Education*, London: Routledge
- Preobragenskaya, G. McGee, R.W. (2016). A Demographic Study of Russian Attitudes Toward Tax Evasion, *Journal of Accounting, Ethics and Public Policy*, Vol. 17, No. 1, 2016
- Roth, J.A., Scholz, J.T., Witte, A.D. (Eds.) (1989). *Taxpayer Compliance*, Volume 1: An Agenda for Research. Philadelphia: University of Pennsylvania Press.
- Saglam, M. (2013). Vergi Algısı ve Vergi Bilinci Üzerine Bir Araştırma: İktisadi ve İdari Bilimler Fakültesi Öğrencilerinde Vergi Algısı ve Bilinci. *Sosyoekonomi*, 19(19), 315-334.
- Shahin, A. (2009). Kayıtdışı Ekonomi ve Vergi Ahlakı Etkileşimi, Doktora tezi, Çanakkale On Sekiz Mart Üniversitesi Sosyal Bilimler Enstitüsü, Çanakkale.
- Teyyare, E., Kumbashlı, E. (2016). Vergi bilinci ve vergi ahlakının gelişmesinde maliye bölümü eğitiminin rolü, *AİBÜ Sosyal Bilimler Enstitüsü Dergisi*, 2016, Cilt:16, Yıl:16, Sayı: 4, 16: 1-29
- Torgler, B. (2003). *Tax Morale: Theory and Empirical Analysis of Tax Compliance*, Unpublished PhD. Thesis, Basel: Universität Basel
- Torgler, B. (2006). The importance of faith: Tax morale and religiosity, *Journal of Economic Behavior & Organization*, Vol. 61, issue 1, 81-109
- Torgler, B., Demir, I.C., Macintyre, A. & Schaffner, M. (2008). Causes and Consequences of Tax Morale: An Empirical Investigation, *Economic Analysis and Policy*, 38/2: 313-339.



Appendix 1

Gender * What is a tax? (before education) Crosstabulation

a			What is a tax? (before education)						
			Citizenship duty	Money to protect our environment	Public service fee	Reduces our well- being	Heavy burden and debt	Unnecessary expense	Total
Gender	Male	Count	11	15	48	49	22	15	160
		% within Gender	6.9%	9.4%	30.0%	30.6%	13.8%	9.4%	100.0%
		% within What is a tax? (before education)	50.0%	60.0%	65.8%	65.3%	75.9%	57.7%	64.0%
		% of Total	4.4%	6.0%	19.2%	19.6%	8.8%	6.0%	64.0%
	Female	Count	11	10	25	26	7	11	90
		% within Gender	12.2%	11.1%	27.8%	28.9%	7.8%	12.2%	100.0%
		% within What is a tax? (before education)	50.0%	40.0%	34.2%	34.7%	24.1%	42.3%	36.0%
		% of Total	4.4%	4.0%	10.0%	10.4%	2.8%	4.4%	36.0%
Total		Count	22	25	73	75	29	26	250
		% within Gender	8.8%	10.0%	29.2%	30.0%	11.6%	10.4%	100.0%
		% within What is a tax? (before education)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	8.8%	10.0%	29.2%	30.0%	11.6%	10.4%	100.0%

Gender * What is a tax? (after education) Crosstabulation

			What is a tax? (after education)						Total
			Citizenship duty	Money to protect our environment	Public service fee	Reduces our well-being	Heavy burden and debt	Unnecessary expense	
Gender	Male	Count	18	13	59	25	9	4	128
		% within Gender	14.1%	10.2%	46.1%	19.5%	7.0%	3.1%	100.0%
		% within What is a tax? (after education)	47.4%	56.5%	54.1%	50.0%	47.4%	36.4%	51.2%
		% of Total	7.2%	5.2%	23.6%	10.0%	3.6%	1.6%	51.2%
	Female	Count	20	10	50	25	10	7	122
		% within Gender	16.4%	8.2%	41.0%	20.5%	8.2%	5.7%	100.0%
		% within What is a tax? (after education)	52.6%	43.5%	45.9%	50.0%	52.6%	63.6%	48.8%
		% of Total	8.0%	4.0%	20.0%	10.0%	4.0%	2.8%	48.8%
Total		Count	38	23	109	50	19	11	250
		% within Gender	15.2%	9.2%	43.6%	20.0%	7.6%	4.4%	100.0%
		% within What is a tax? (after education)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	15.2%	9.2%	43.6%	20.0%	7.6%	4.4%	100.0%



Appendix 2.

Gender * Would you like to give part of your income to the government as tax? (before education) Crosstabulation

			Would you like to give part of your income to the government as tax? (before education)			Total
			Yes	No	I'm not sure	
Gender	Male	Count	64	65	31	160
		% within Gender	40.0%	40.6%	19.4%	100.0%
		% within Would you like to give part of your income to the government as tax? (before education)	60.4%	69.9%	60.8%	64.0%
		% of Total	25.6%	26.0%	12.4%	64.0%
	Female	Count	42	28	20	90
		% within Gender	46.7%	31.1%	22.2%	100.0%
		% within Would you like to give part of your income to the government as tax? (before education)	39.6%	30.1%	39.2%	36.0%
		% of Total	16.8%	11.2%	8.0%	36.0%
Total	Count		106	93	51	250
	% within Gender		42.4%	37.2%	20.4%	100.0%
	% within Would you like to give part of your income to the government as tax? (before education)		100.0%	100.0%	100.0%	100.0%
	% of Total		42.4%	37.2%	20.4%	100.0%

Gender * Would you like to give part of your income to the government as tax? (after education) Crosstabulation

			Would you like to give part of your income to the government as tax? (after education)			Total
			Yes	No	I'm not sure	
Gender	Male	Count	79	38	11	128
		% within Gender	61.7%	29.7%	8.6%	100.0%
		% within Would you like to give part of your income to the government as tax? (after education)	53.4%	53.5%	35.5%	51.2%
		% of Total	31.6%	15.2%	4.4%	51.2%
	Female	Count	69	33	20	122
		% within Gender	56.6%	27.0%	16.4%	100.0%
		% within Would you like to give part of your income to the government as tax? (after education)	46.6%	46.5%	64.5%	48.8%
		% of Total	27.6%	13.2%	8.0%	48.8%
Total	Count		148	71	31	250
	% within Gender		59.2%	28.4%	12.4%	100.0%
	% within Would you like to give part of your income to the government as tax? (after education)		100.0%	100.0%	100.0%	100.0%
	% of Total		59.2%	28.4%	12.4%	100.0%



Appendix 3.

Gender * Do you think that citizens who do not pay their taxes are guilty? (before education) Crosstabulation

			Do you think that citizens who do not pay their taxes are guilty? (before education)			Total
			Yes	No	I'm not sure	
Gender	Male	Count	52	82	26	160
		% within Gender	32.5%	51.2%	16.2%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (before education)	59.1%	69.5%	59.1%	64.0%
		% of Total	20.8%	32.8%	10.4%	64.0%
	Female	Count	36	36	18	90
		% within Gender	40.0%	40.0%	20.0%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (before education)	40.9%	30.5%	40.9%	36.0%
		% of Total	14.4%	14.4%	7.2%	36.0%
Total	Count		88	118	44	250
	% within Gender		35.2%	47.2%	17.6%	100.0%
	% within Do you think that citizens who do not pay their taxes are guilty? (before education)		100.0%	100.0%	100.0%	100.0%
	% of Total		35.2%	47.2%	17.6%	100.0%

Gender * Do you think that citizens who do not pay their taxes are guilty? (after education) Crosstabulation

			Do you think that citizens who do not pay their taxes are guilty? (after education)			Total
			Yes	No	I'm not sure	
Gender	Male	Count	73	43	12	128
		% within Gender	57.0%	33.6%	9.4%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (after education)	52.5%	53.8%	38.7%	51.2%
		% of Total	29.2%	17.2%	4.8%	51.2%
	Female	Count	66	37	19	122
		% within Gender	54.1%	30.3%	15.6%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (after education)	47.5%	46.2%	61.3%	48.8%
		% of Total	26.4%	14.8%	7.6%	48.8%
Total	Count		139	80	31	250
	% within Gender		55.6%	32.0%	12.4%	100.0%
	% within Do you think that citizens who do not pay their taxes are guilty? (after education)		100.0%	100.0%	100.0%	100.0%



Gender * Do you think that citizens who do not pay their taxes are guilty? (after education) Crosstabulation

			Do you think that citizens who do not pay their taxes are guilty? (after education)			Total
			Yes	No	I'm not sure	
Gender	Male	Count	73	43	12	128
		% within Gender	57.0%	33.6%	9.4%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (after education)	52.5%	53.8%	38.7%	51.2%
		% of Total	29.2%	17.2%	4.8%	51.2%
	Female	Count	66	37	19	122
		% within Gender	54.1%	30.3%	15.6%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (after education)	47.5%	46.2%	61.3%	48.8%
		% of Total	26.4%	14.8%	7.6%	48.8%
Total	Count		139	80	31	250
	% within Gender		55.6%	32.0%	12.4%	100.0%
	% within Do you think that citizens who do not pay their taxes are guilty? (after education)		100.0%	100.0%	100.0%	100.0%
	% of Total		55.6%	32.0%	12.4%	100.0%

Appendix 4.

Religion * What is a tax? (before education) Crosstabulation

			What is a tax? (before education)						Total
			Citizenship duty	Money to protect our environment	Public service fee	Reduces our well-being	Heavy burden and debt	Unnecessary expense	
Religion	Islam	Count	13	13	47	55	24	22	174
		% within Religion	7.5%	7.5%	27.0%	31.6%	13.8%	12.6%	100.0%
		% within What is a tax? (before education)	59.1%	52.0%	64.4%	73.3%	82.8%	84.6%	69.6%
		% of Total	5.2%	5.2%	18.8%	22.0%	9.6%	8.8%	69.6%
	Dualist	Count	9	12	26	20	5	4	76
		% within Religion	11.8%	15.8%	34.2%	26.3%	6.6%	5.3%	100.0%
		% within What is a tax? (before education)	40.9%	48.0%	35.6%	26.7%	17.2%	15.4%	30.4%
		% of Total	3.6%	4.8%	10.4%	8.0%	2.0%	1.6%	30.4%
Total	Count		22	25	73	75	29	26	250
	% within Religion		8.8%	10.0%	29.2%	30.0%	11.6%	10.4%	100.0%
	% within What is a tax? (before education)		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



Religion * What is a tax? (before education) Crosstabulation

			What is a tax? (before education)						Total
			Citizenship duty	Money to protect our environment	Public service fee	Reduces our well-being	Heavy burden and debt	Unnecessary expense	
Religion	Islam	Count	13	13	47	55	24	22	174
		% within Religion	7.5%	7.5%	27.0%	31.6%	13.8%	12.6%	100.0%
		% within What is a tax? (before education)	59.1%	52.0%	64.4%	73.3%	82.8%	84.6%	69.6%
		% of Total	5.2%	5.2%	18.8%	22.0%	9.6%	8.8%	69.6%
	Dualist	Count	9	12	26	20	5	4	76
		% within Religion	11.8%	15.8%	34.2%	26.3%	6.6%	5.3%	100.0%
		% within What is a tax? (before education)	40.9%	48.0%	35.6%	26.7%	17.2%	15.4%	30.4%
		% of Total	3.6%	4.8%	10.4%	8.0%	2.0%	1.6%	30.4%
Total	Count		22	25	73	75	29	26	250
	% within Religion		8.8%	10.0%	29.2%	30.0%	11.6%	10.4%	100.0%
	% within What is a tax? (before education)		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total		8.8%	10.0%	29.2%	30.0%	11.6%	10.4%	100.0%

Religion * What is a tax? (after education) Crosstabulation

			What is a tax? (after education)						Total
			Citizenship duty	Money to protect our environment	Public service fee	Reduces our well-being	Heavy burden and debt	Unnecessary expense	
Religion	Islam	Count	26	10	76	36	15	11	174
		% within Religion	14.9%	5.7%	43.7%	20.7%	8.6%	6.3%	100.0%
		% within What is a tax? (after education)	68.4%	43.5%	69.7%	72.0%	78.9%	100.0%	69.6%
		% of Total	10.4%	4.0%	30.4%	14.4%	6.0%	4.4%	69.6%
	Dualist	Count	12	13	33	14	4	0	76
		% within Religion	15.8%	17.1%	43.4%	18.4%	5.3%	.0%	100.0%
		% within What is a tax? (after education)	31.6%	56.5%	30.3%	28.0%	21.1%	.0%	30.4%
		% of Total	4.8%	5.2%	13.2%	5.6%	1.6%	.0%	30.4%
Total	Count		38	23	109	50	19	11	250
	% within Religion		15.2%	9.2%	43.6%	20.0%	7.6%	4.4%	100.0%
	% within What is a tax? (after education)		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total		15.2%	9.2%	43.6%	20.0%	7.6%	4.4%	100.0%



Appendix 5.

Religion * Would you like to give part of your income to the government as tax? (before education) Crosstabulation

			Would you like to give part of your income to the government as tax? (before education)			Total
			Yes	No	I'm not sure	
Religion	Islam	Count	62	71	41	174
		% within Religion	35.6%	40.8%	23.6%	100.0%
		% within Would you like to give part of your income to the government as tax? (before education)	58.5%	76.3%	80.4%	69.6%
		% of Total	24.8%	28.4%	16.4%	69.6%
	Dualist	Count	44	22	10	76
		% within Religion	57.9%	28.9%	13.2%	100.0%
		% within Would you like to give part of your income to the government as tax? (before education)	41.5%	23.7%	19.6%	30.4%
		% of Total	17.6%	8.8%	4.0%	30.4%
	Total	Count	106	93	51	250
		% within Religion	42.4%	37.2%	20.4%	100.0%
		% within Would you like to give part of your income to the government as tax? (before education)	100.0%	100.0%	100.0%	100.0%
		% of Total	42.4%	37.2%	20.4%	100.0%

Religion * Would you like to give part of your income to the government as tax? (after education) Crosstabulation

			Would you like to give part of your income to the government as tax? (after education)			Total
			Yes	No	I'm not sure	
Religion	Islam	Count	92	55	27	174
		% within Religion	52.9%	31.6%	15.5%	100.0%
		% within Would you like to give part of your income to the government as tax? (after education)	62.2%	77.5%	87.1%	69.6%
		% of Total	36.8%	22.0%	10.8%	69.6%
	Dualist	Count	56	16	4	76
		% within Religion	73.7%	21.1%	5.3%	100.0%
		% within Would you like to give part of your income to the government as tax? (after education)	37.8%	22.5%	12.9%	30.4%
		% of Total	22.4%	6.4%	1.6%	30.4%
	Total	Count	148	71	31	250
		% within Religion	59.2%	28.4%	12.4%	100.0%
		% within Would you like to give part of your income to the government as tax? (after education)	100.0%	100.0%	100.0%	100.0%



Religion * Would you like to give part of your income to the government as tax? (after education) Crosstabulation

			Would you like to give part of your income to the government as tax? (after education)			Total
			Yes	No	I'm not sure	
Religion	Islam	Count	92	55	27	174
		% within Religion	52.9%	31.6%	15.5%	100.0%
		% within Would you like to give part of your income to the government as tax? (after education)	62.2%	77.5%	87.1%	69.6%
		% of Total	36.8%	22.0%	10.8%	69.6%
	Dualist	Count	56	16	4	76
		% within Religion	73.7%	21.1%	5.3%	100.0%
		% within Would you like to give part of your income to the government as tax? (after education)	37.8%	22.5%	12.9%	30.4%
		% of Total	22.4%	6.4%	1.6%	30.4%
Total		Count	148	71	31	250
		% within Religion	59.2%	28.4%	12.4%	100.0%
		% within Would you like to give part of your income to the government as tax? (after education)	100.0%	100.0%	100.0%	100.0%
		% of Total	59.2%	28.4%	12.4%	100.0%

Appendix 6.

Religion * Do you think that citizens who do not pay their taxes are guilty? (before education) Crosstabulation

			Do you think that citizens who do not pay their taxes are guilty? (before education)			Total
			Yes	No	I'm not sure	
Religion	Islam	Count	50	87	37	174
		% within Religion	28.7%	50.0%	21.3%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (before education)	56.8%	73.7%	84.1%	69.6%
		% of Total	20.0%	34.8%	14.8%	69.6%
	Dualist	Count	38	31	7	76
		% within Religion	50.0%	40.8%	9.2%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (before education)	43.2%	26.3%	15.9%	30.4%
		% of Total	15.2%	12.4%	2.8%	30.4%
Total		Count	88	118	44	250
		% within Religion	35.2%	47.2%	17.6%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (before education)	100.0%	100.0%	100.0%	100.0%



Religion * Do you think that citizens who do not pay their taxes are guilty? (before education) Crosstabulation

			Do you think that citizens who do not pay their taxes are guilty? (before education)			Total
			Yes	No	I'm not sure	
Religion	Islam	Count	50	87	37	174
		% within Religion	28.7%	50.0%	21.3%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (before education)	56.8%	73.7%	84.1%	69.6%
		% of Total	20.0%	34.8%	14.8%	69.6%
Dualist	Dualist	Count	38	31	7	76
		% within Religion	50.0%	40.8%	9.2%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (before education)	43.2%	26.3%	15.9%	30.4%
		% of Total	15.2%	12.4%	2.8%	30.4%
Total	Total	Count	88	118	44	250
		% within Religion	35.2%	47.2%	17.6%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (before education)	100.0%	100.0%	100.0%	100.0%
		% of Total	35.2%	47.2%	17.6%	100.0%

Religion * Do you think that citizens who do not pay their taxes are guilty? (after education) Crosstabulation

			Do you think that citizens who do not pay their taxes are guilty? (after education)			Total
			Yes	No	I'm not sure	
Religion	Islam	Count	84	61	29	174
		% within Religion	48.3%	35.1%	16.7%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (after education)	60.4%	76.2%	93.5%	69.6%
		% of Total	33.6%	24.4%	11.6%	69.6%
Dualist	Dualist	Count	55	19	2	76
		% within Religion	72.4%	25.0%	2.6%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (after education)	39.6%	23.8%	6.5%	30.4%
		% of Total	22.0%	7.6%	.8%	30.4%
Total	Total	Count	139	80	31	250
		% within Religion	55.6%	32.0%	12.4%	100.0%
		% within Do you think that citizens who do not pay their taxes are guilty? (after education)	100.0%	100.0%	100.0%	100.0%
		% of Total	55.6%	32.0%	12.4%	100.0%



Appendix 7.

Group Statistics

	Religion	N	Mean	Std. Deviation	Std. Error Mean
mean_b	Islam	174	1.902	.6982	.0529
	Dualist	76	1.572	.6465	.0742
mean_a	Islam	174	1.655	.7225	.0548
	Dualist	76	1.309	.5352	.0614

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
mean_b	Equal variances assumed	.297	.586	3.513	248	.001	.3299	.0939	.1450	.5149
	Equal variances not assumed			3.621	153.591	.000	.3299	.0911	.1499	.5099
mean_a	Equal variances assumed	18.319	.000	3.748	248	.000	.3460	.0923	.1641	.5278
	Equal variances not assumed			4.205	189.788	.000	.3460	.0823	.1837	.5083

Appendix 8.

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
mean_b	Male	128	1.801	.6650	.0588
	Female	122	1.803	.7345	.0665
mean_a	Male	128	1.496	.6352	.0561
	Female	122	1.607	.7392	.0669

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
mean_b	Equal variances assumed	3.191	.075	-.028	248	.978	-.0025	.0885	-.1769	.1719
	Equal variances not assumed			-.028	242.757	.978	-.0025	.0888	-.1773	.1723
mean_a	Equal variances assumed	6.565	.011	-1.269	248	.206	-.1105	.0870	-.2819	.0610
	Equal variances not assumed			-1.265	238.641	.207	-.1105	.0874	-.2826	.0616



Social Entrepreneurship as a Tool for Civic Engagement in the Context of Smart Regional Development

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Abstract

The growing importance of the social sector in Europe determines emerging of a new concept - social entrepreneurship as an innovative non-standard business activity to solve existing problems and overcome challenges. A decade ago this concept was rarely mentioned but now it is included in the research agenda of all major world economy schools. This unexplored and potentially effective phenomenon is being discussed not only in the academic realm but it is also analyzed and integrated into national policies and implemented by innovative business practitioners. Social enterprises act as change agents for society, providing opportunities that traditional business misses, improving systems, creating innovative approaches, and providing solutions for societal change, making it better. However, traditional entrepreneurship can create completely new industries, it is still creating gaps being unable to address the societal challenges. Social entrepreneurship presents new solutions to solve social problems and then implements them in the existing industries or creates hybrid businesses that combine different types of economic activities or industries to find solutions that traditional entrepreneurship and the public sector were unable to provide. Social entrepreneurship and social innovation are part of the solution, as both have a clear goal to provide innovative solutions for unresolved social problems and emphasise creation of social values as a key mission to improve the individuals' and communities' lives, increase overall prosperity. Nowadays the most important task, which is also a kind of challenge for national governments, municipal authorities, policy makers and all economical stakeholders, is to help the weakest groups in society (the poor, people with disabilities, etc.) to adapt to new and changing situations. It is most important to provide this assistance in a way that promotes sustainable economic and social development. As social entrepreneurship is a relatively new area of research and it is not particularly developed in Latvia, the work will be devoted to the characterization of social entrepreneurship, the analysis of the situation in Latvia, identification of strategic elements and the development of recommendations for supporting social entrepreneurship development in Latvia more efficiently. The authors of the paper have developed a model of social



entrepreneurship reflection based on current economic actors as well as suggestions for social entrepreneurship projects development in Latvia.

Keywords: social entrepreneurship, civic engagement, smart regional development

Introduction

At the moment, an important task is to help the weaker groups of society (the poor, people with special needs, etc.) to adapt to new and changing situations, which are a kind of a challenge for the national governments, local authorities, policy makers and all national economic stakeholders. It is important to provide assistance in such a way that it would promote sustainable economic and social development, so that available benefits and economic and monitoring programmes will be widely available at all levels; unions, national, regional etc. Social entrepreneurship and social innovation are a part of the solution because both have clear objectives of submitting innovative solutions to the unsolved social problems and social values, as a key mission to improve the lives of individuals and communities, also to increase overall prosperity. Even if social entrepreneurship as a form of action and social innovation is rapidly developing around the world, it appears at different levels and is discussed frequently. They are relatively recent and studied very little. Research areas, practices and concepts are not clear or are often expressed in contrary views, especially in terms of social entrepreneurship. The term social entrepreneurship tends to overlap with terms such as social economy, third sector, non-profit sector and others. In addition, definitions are sensitive to geographical locations and the cultural context because the United States, Western European countries, Eastern European countries and Asia will distinguish them. That is why this work is based on the definition of social entrepreneurship, which has been published in the European Commission's Social Business initiative and will be used as a basis for the development of this sector in Europe.

The aim of the research was the theoretical analysis of social entrepreneurship, a public presentation of the characteristics of social entrepreneurship; analysis of existing examples and the dissemination of good practices of Latvia social enterprises to the interested parties. Work restrictions: lack of statistical data and gaps in existing information on social entrepreneurship; social benefits are difficult to measure in economic sizes, in specific units of measurement, author's subjective views on the most efficient development model.

Social environment as a pre-condition for formation of social entrepreneurship.

The social environment includes a persons' life and working conditions, the level of income, obtained education and the local society where they belong. (Nyssens, et al., 2006; Social environment, 2019)

All of these things affect a humans' well-being, their standard of living, and opportunities. There is a substantial difference in the country, between rural and urban populations, the wealthy and poor, another more striking difference is between the diverse Member States of the European Union. These differences are reinforced by the different working conditions, level of education, the membership of a particular ethnic group and other factors contributing to the inequality of the social environment. In order to improve the situation in the European Union, a number of mechanisms have been put in place to promote cohesion and help to address the challenges in certain regions. As an example, European Union initiatives to improve the social environment: better jobs, job security, economic development of areas and other activities have access to instruments such as the European Social Fund, EQUAL initiative and other programmes addressing cross-border social challenges, the modernization of the labour market and welfare systems etc. Latvia is also implementing both the national and the European Union policies to improve the social environment and to increase the welfare of citizens. The aim is to provide the most vulnerable groups of society with equal opportunities, or at least to bring them closer to the level of opportunities of privileged population groups. However, looking at publicly available resources, it can be concluded that the country is lacking an overall social environmental analysis. The general impression of the country is missing, so that social workers and



officials responsible for implementing the single development plan work together on a common basis and apply coordinate activities that complement each other rather than making small improvements, uncoordinated, fragmented and without long-term impacts. (Lešinska et al., 2012).

As it was mentioned above, the social environment is characterized by human living and working conditions, their income levels, education and local community. In Latvia, it is possible to distinguish between two fundamentally different social environments, which differ in all the elements that describe them, namely the social environment for urban residents and the social environment for rural residents. It also should be stressed here that not only residents of the Republic's 9 big cities are considered to be urban residents, but other cities of Latvia too, whose inhabitants have more scope for improving the quality of life compared to those who come from rural areas. Health care, entertainment, opportunities for education, etc. From all the above-mentioned factors, the importance of education in the creation of a social and an economic environment in rural areas has to be emphasized, educational institutions become cultural and rural areas, a center of local society, without which any possibility of normal living conditions would be lost in time, for a comprehensive life in rural areas. During the crisis years in Latvia, the political attitude towards all the sectors in the country have had a significant impact on education and rural schools are closing increasingly, essentially forcing people out of the rural areas. Many people move to the city where they are offered opportunities, in terms of both economic and social services. More about the nature of rural areas in the context of smart development can be read in other authors' works (see Jermolajeva, Rivža et al., 2017; Šipilova, Ostrovska et al., 2017a; Šipilova, Ostrovska et al., 2017b; Šipilova, Aleksejeva et al., 2016).

Why is social entrepreneurship necessary?

One of the answers is to address the economic and social challenges that have not been resolved until nowadays. The current situation shows that the system is not working; a new approach is needed because the rich are getting richer and the number of poor is growing every day. The modern economic system has forgotten about the beginning and the end of a man who is the center of everything, all we do, is it not focused on satisfying human needs? Then why is it allowed that each moment in the political, economic and social system leaves more and more people physically, mentally, socially unsatisfied? The current response to the development of the system is social entrepreneurship. Social entrepreneurship and social innovation have gained special attention of the past decade from policy makers, academics, practitioners and the society. Social entrepreneurship and social innovation are important instruments for tackling social challenges and responding to them if the market and the public sector have failed to do so or have failed to do it until now. The major and outstanding challenges at global, national and local levels require new strategies and tools to successfully address them. The markets and national forces are not able to regulate and resolve all problems. New approaches are needed to address key social challenges. In Europe, the recognition of the growing importance of social economy, along with a wider interest in non-traditional business opportunities to address current challenges, has contributed to the development of a new concept of social entrepreneurship. A few decades ago, the concept of social enterprise was rarely discussed but studies have been carried out and is an important topic for research and discussions in Europe and Asia and the United States and other places. The theoretical basis for social entrepreneurship was laid down in the United States, in 1980 Bill Drayton founded an organisation called "ASHOKA", which has now established social entrepreneurship programmes in more than 60 countries and has more than 2000 members (Social Entrepreneurship, 2019). Harvard Business School launched the inclusion of social entrepreneurship in the academic community, which published "Social Business Initiative" in 1993, since then, other major universities such as Columbia and Yale universities have included it in their programmes and various funds have established training and support programmes for social enterprises. The original concept of social entrepreneurship was a very broad and vague concept, mainly by referring to market oriented economic activity that serves social purposes. Social enterprises were seen as an innovative solution to the financial problems of non-profit organisations. The concept was also used to highlight innovative solutions in different types of projects, also to



describe the high financial risks inherent in new innovative projects (Alter et al., 2007; Austin et al., 2012; Nyssen, 2006). This broad concept is also used by Business Global Monitoring in its business development reports. Global Business Monitoring is an international research project involving 69 countries. It aims at research and analysis of the business environment. The Latvian study is carried out by researchers from the Baltic International Centre for Economic Policy Studies (BICEPS) and Stockholm School of Economics in Riga (SSE). Recent data. The latest data shows that 13.4% of the adult population in Latvia entered early stage business in the year of 2017, which is a higher rate than the average in Europe. Latvia ranks fourth in Europe behind the early stages in Switzerland, Croatia and France in terms of business forecasts regarding the potential growth of its business. In general, Latvians believe that they are fairly skilled and educated in business, but relatively less often than the average in Europe, they see business opportunities opening up at their place of residence. Thus, the Latvian share is continuing to grow, when they see good opportunities for business, it is not realized for the fear of potential failure, that is the data collected in the report. In the year of 2017, approximately 14% of Latvians aged 18 to 64 were involved in early stage business activities. This is a higher rate compared to the average in Europe, but there are a few people in business over the age of 55, with people aged between 55 and 64 they are starting to lag behind. It is noted that in 2017, 4.3% of Europeans aged between 55 and 64 were involved in early stage business activities while in Latvia this rate was 2.6%.

First of all, in general, elderly people have the least faith in their ability to start and run a business and more rarely in the circle of their friends and any acquaintance do they meet an entrepreneur, who, with their example, would be able to encourage them to think about the possibility of doing business. Secondly, if the highest level of participation in early stage business in European countries over the age of 55 is looked at, it is the United Kingdom, Switzerland, Sweden, Luxembourg, with relatively high levels of well-being, older people ‘‘can afford’’ to run a business’’, the data is described by the Baltic International Centre of Economic Policy Studies researcher Marija Krumina. She states that there are about six business women in Latvia. A similar situation is seen in Estonia and in Europe on average. In 2017, 23.7% newly developed wholesale and retail trade spheres started their work, start-ups, health, education, the fields of public administration and social services- 16.3%, production- 12.5% and agriculture- 11.5%. Despite the fact that after the year of 2012, forecasts of early stage Latvian entrepreneurship ranks fourth in Europe behind Switzerland (33.2%), Croatia (30.4%) and France (27.9%) in terms of early stage entrepreneur forecasts for its business.

In 2017, 27.5% of entrepreneurs in Latvia forecast the ability to create six or more jobs over the next five years. ‘‘Observed reduction in business forecasts regarding the number of potential employees in the company, policy makers are calling for serious attention to be paid to identifying restrictive factors: strict labour rules, skilled and educated labour shortages and limited access to business finance’’, stresses the co-author of the study SSE Riga rector Anders Palzovs (Anders Paalzow).

In recent years, the level of innovation capacity of Latvian entrepreneurs has been stable and very similar to that observed on average in Europe. In 2017, 28% of Latvian entrepreneurs introduced new or unique products for individuals or all customers. It is important to note that it is a subjective assessment of each entrepreneur. The European Commission published *European innovation scoreboard 2017*, Latvia is included in the group of ‘‘middle innovators’’, whose innovation performance is from 50 to 90% of the EU-28 average. According to the data compared to Europe (2.9%), percentage high (4.2%) was the number of Latvian businesses, who refused to continue their business in 2017. The increase in the business gap rate (3.4% in 2015, 3.3% in 2016 and 4.2% in 2017) shows that not all business attempts have been successful in recent years. In 28.9% of the cases with no profit, a decision was made not to pursue any further in the business. Although, over time the significance of this has decreased (in 2015 – 42.4%, in 2016 – 38.6%). Personal reasons (20.3%) and bureaucracy (24.6%) have been major reasons for breaking up businesses. In Latvia, bureaucracy is like a reason not to continue the business, compared to previous years (in 2015- 12.0%, in 2016 – 20.6%), has become more important.



Basic Business Environment Conditions (BBEC), which have been the most favourable for Latvia in the past three years, are physical infrastructures, commercial infrastructure, social and cultural norms. The state politics (mainly tax politics or regulations that should support small and medium sized enterprises (SME's)), research and development (R&D) transfer (to the extent that state R&D creates new commercial opportunities and is available to SME's), and the inclusion of entrepreneurship in the education programme at the basic level (primary and secondary school). These are the three most underestimated basic conditions of Latvian experts (the aspirations of Latvian residents..., 2019).

Characteristics of social enterprise

Social enterprise may be distinguished from other according to the non-commercial resources used in its operation. As it is mentioned above, both concepts, the non-profit sector and the social economy include the existence of the benefits of society or specific target groups and ensuring their existence. These "public benefits" often justify the payment of subsidies to third sector organisations. In addition, this feature applies to the majority of social enterprises financed both by funds derived from economic activities on the market and from non-commercial resources allocated by public authorities in the name of the public. Donations and non-monetary resources (for example, voluntary work) are used in the non-profit sector, in the social economy and in social enterprises. Social enterprises have specific organizational methods, which they use to run a business and differ from methods used in classical businesses. The non-profit and social economy approach is in agreement that the third sector organisations are autonomous bodies, with their decision making body. The social economy approach underlines the need for democratic decision-making processes. Such functions often exist in social enterprises, as they are usually based on the views of all stakeholder, employees, volunteers, clients and/or other partners representing, for e.g. the local community. These democratic decisions concern both the management and control structure in the organization or the company. Since the mandate of its members does not have to be proportional to the existing capital in each member's ownership, it can be clearly concluded that it is a property, which can be classified as social.

A social enterprise that is a member of the social economy is a company whose main aim is to implement social impacts and not to create benefits for its owners or partners. It operates in a market, in a specific business and innovative way of producing goods and services, uses income mostly for social purposes. These undertakings are managed responsibly and transparently, namely by involving its employees, customers and stakeholders in the economic activities of the undertaking. As "social enterprises" the European Commission considers these types of business.

- for which commercial activity it is social or a social purpose of general interest, often expressed as a high level of social innovation,
- who profits are mainly re-invested in the achievement of this social aim,
- the type of organization or ownership system that reflects the mission on the basis of democratic or participatory principles or with a view to social justice
- enterprises providing social services and/or goods and services that are intended for the vulnerable part of society (access to housing, care, assistance for elderly and disabled, including vulnerable groups, childcare, access to employment and education, addiction management etc.) and/or
- enterprises whose type of production of goods or services has social objectives (social and professional integration, providing employment opportunities for a group at risk of social exclusion due to their low qualifications, social or professional problems leading to the exclusion and marginalization). Their activity may not only be related to social but also to other goods or services (Alter et al., 2007).

Combining a number of factors directly affected by actions of different socially responsible customers, which are necessary in order to create a favourable environment and to promote the formation and development of the social



entrepreneurship sector, a wider picture of the environment for social entrepreneurship is proposed by the authors (see fig.1). As it can be seen in figure 1, traditional business doesn't overlap with social entrepreneurship, but those companies that include corporate social responsibility measures in their activities partly overlap with social enterprises, because they are already essentially designed to fulfil the principles of socially responsible businesses. Both traditional and social businesses, the main source of revenue is their activity on the market, the production of goods and services is distinguished by the relationship between the axis of main activity target, where in social businesses it's essential to create a general benefit and pursue the social aim. In traditional business, it's essential to serve in the interests of owners of the company and promote their ownership and value of their property.

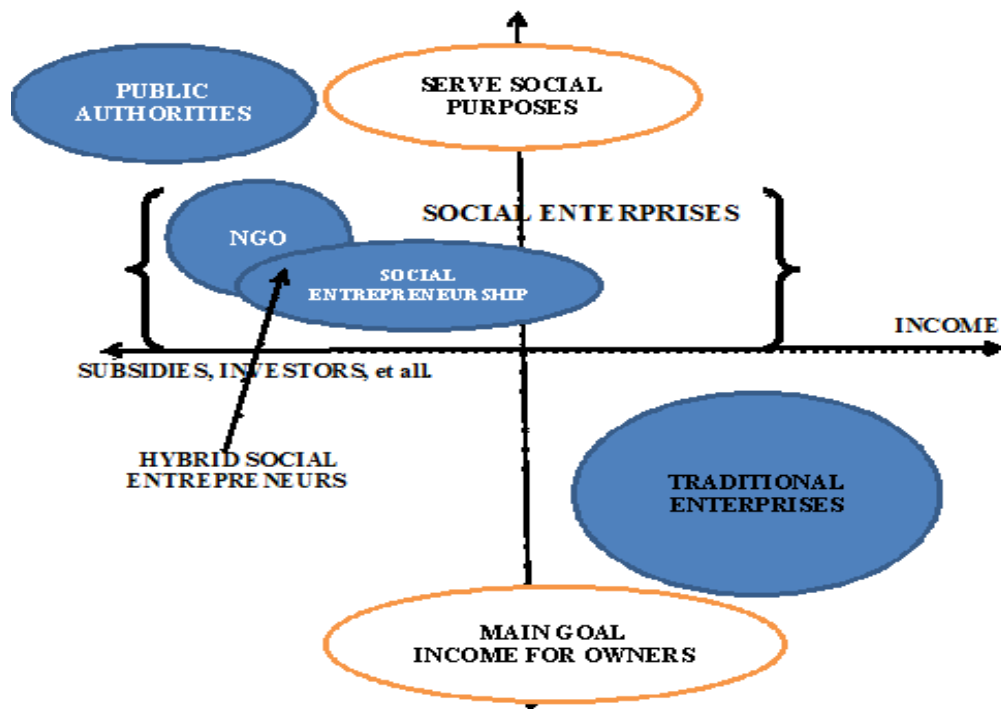


Fig.1. Social enterprise building environment (created by authors)

One of the strengths of Latvia is the developed sector of non-governmental organisations. This is reflected in fig.1, as part of the social economy that is forming, it overlaps social entrepreneurship and enables formation of new hybrid social enterprises, which also develops the social entrepreneurship sector by taking a specific form of social entrepreneurship or by continuing to develop into a new, highly hybrid social enterprise. As it is shown in the upper left corner of the figure, national authorities are positioned. Their revenues are directly made up of its members, all residents of the country, through their economic activities, paying taxes and fees. The aim of the state is the well-being of its people and the representation of its general interest. However, this figure does not represent national authorities as a combination of all elements, it must be seen as a monitoring and environmental correction element. In some cases, social entrepreneurs have insufficient capacity to start, develop and expand social enterprises. There are many reasons for this barrier, ranging from low-level investment in social entrepreneurship education and training, insufficient knowledge of proven business models, which face insufficient support and unordered infrastructure that cannot provide support for social entrepreneurship services and the exchange of good practices across Europe and outside of it. This barrier is closely related to the business environment, which largely lacks



awareness and recognition of social value for what social companies generate. The development of civil society, such as new forms of partnership, complementing the traditional business with socially responsible business aspects. It's very important to inform and involve the public, especially the local community in the development of its process.

The economic reason for the need of social entrepreneurship

Development of the social entrepreneurship sector and increasing public interest and support is highly analyzing the social return that social enterprises provide to local communities and the social economy as a whole. However, there is no single general recognition model as measuring the social return on investment; it is concise that the study should take into account a wider set of values than is sometimes mentioned in agreements, price analyses and benchmark return assessments. In order to fully assess the economic contribution of social enterprises, the basic aim of their activities is to develop social creation or social value; it has to be measured at an economically comparable size. Even so, it's important for a social enterprise to have an economic analysis, since different companies create a critical social value (How to choose..., 2015). Another important aspect is the creation of additional value, since an economic activity creates value for which social value comes, even though the enterprise considers these processes upside down and the economic value is a by-product. Thirdly, when calculating the economic contribution, it is obligatory to assess how much additional value is generated because the service is provided through social and not private or public enterprises. This is the key to understanding where social enterprises have a competitive advantage, which can be used to justify the need for the development of the social business sector (see fig.2)

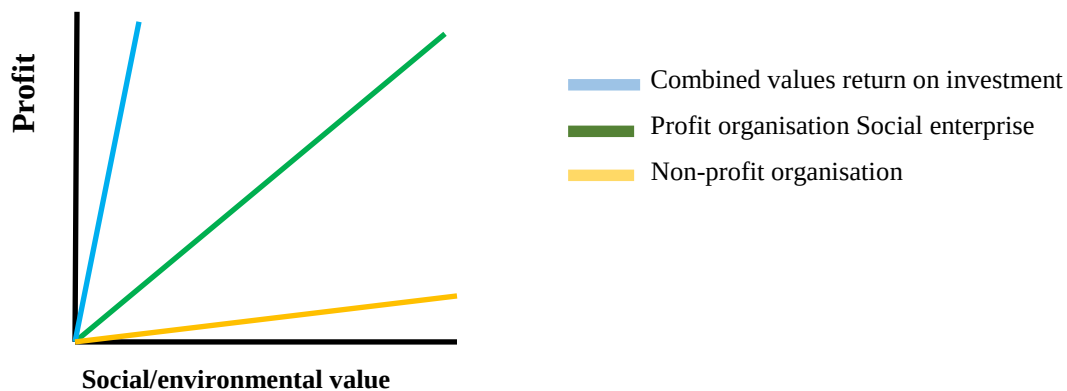


Fig.2. Combined value investment return (created by author Leikuma, 2012)

The ability to assess social value is essential not only for a general analysis of the sector but also for each social enterprise individually in order to manage social enterprise effectively and for board members, directors and management to have access to reports providing an overall overview of financial results, financial position, source and use of funds available. Such economic information helps to analyse the main resources of the company, create short-term plans, control everyday activities, and formulate long-term plans and all forms of decision-making. However, it should be recognized that the determination of social value is more subjective than an objective process, as a standardized method for measuring social value has not yet been developed. The most important feature of social enterprises- social value, some experts describe more than just financial investment returns(ROI), but refer to it as "double" investment returns (social or environmental and financial, or SROI) or also "triple" (social and environmental and financial), in order to not create discussions about the company's balance between profit and social goals. These are considered to be aspects of an enterprise of equivalent importance or the "combined value"



investment return (banded value ROI) [30]. A gap analysis approach will be used for the development of an investment return practice, developed innovation and the social business sector; a technique to describe the current situation at a given moment as well as the desired future situation. (see fig.3.)

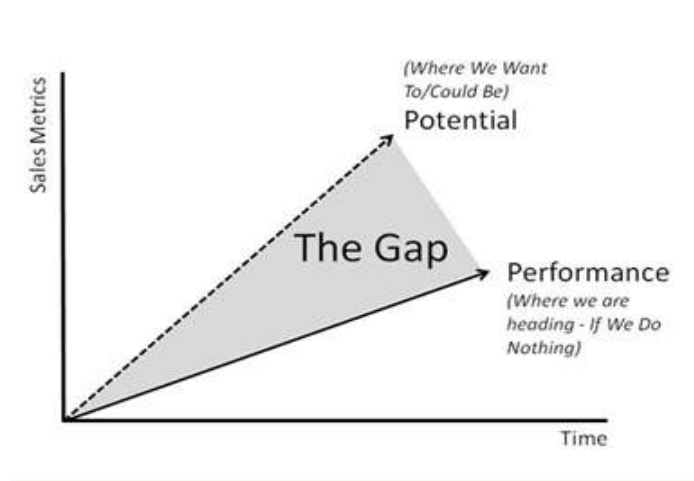


Fig.3.Interval analysis concept (Gap analysis, 2019)

The economic reason for the need for the development of the social entrepreneurship sector offers external financing of a social enterprise against revenue generated by business activities over time (see fig.4.)

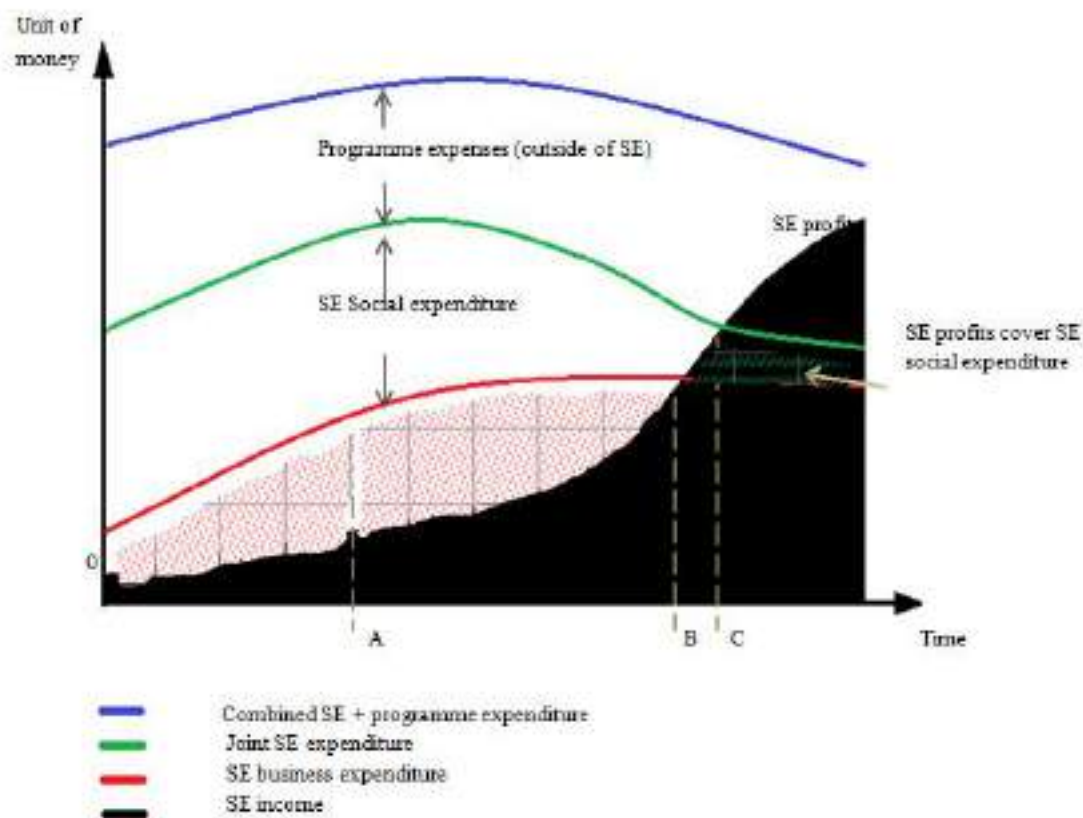


Fig.4. Economic rationale for the social enterprise (created by author Leikuma, 2012)



The total costs can be divided into three sub-categories (moving up the Y-axis):

- Professional expenditure of social enterprises, which includes all expenditure similar to traditional businesses, they are strongly oriented towards profit making, without remuneration for social impact and mission.
- Social expenditure of social enterprises, which include additional expenditure incurred in the process of achieving a social objective, such as adapting special jobs or other non-standard initiatives.
- The total expenditure of social enterprise and the expenditure of the programme is supported by the company outside its activities. For e.g. in the social enterprise models described they are programmes of non-governmental organisations that reflect the reinvestment of profits for social impact.

Time (moving by X-axis), starting from 0-A, the social company goes through the start-up phase of a business that requires a lot of outside funding. Spending is growing at a faster pace than revenue. Point A is a critical phase during which decision makers must carefully assess the company's costs on the basis of their potential to generate future revenues, since only more successful and more carefully planned operating models will be able to reach the company's growth phase. In point B, the economic activity of a social undertaking shall reach a point of balance where the revenue covers the costs. In the growing phase of a social enterprise, it still needs external financing, but incomes are growing faster than spending, this phase leads to the path of traditional financial sustainability. Point B achieves the first profit and loss threshold at which point the social enterprise becomes sustainable as a traditional enterprise; it does not create additional social costs through its activities. Between all business expenses and revenue from time 0 to B, the difference reflects the total amount of business investment (red dot area in the chart). In order to succeed and develop the business at this critical stage, it is appropriate to identify the external financing needs that will be needed within a given time period. It may vary significantly on the basis of a variety of factors (all of which are listed, both in the day-to-day business planning stage and in the other parts of the business plan) From point B to C, external funding is still necessary, but only to cover the share of social expenditure (additional costs of achieving social aims). Depending on the model, some social companies do not keep on developing a company, for example, when a social company is a short-term project, or its economic profitability is very low. Those undertakings, which continue to grow after this paragraph, may reach a second point of profit and loss balance, where its revenue covers all the expenses of a social enterprise and surpluses arise. The gains made after the business and social costs can be used to implement social programmes outside the company. The whole social enterprise has been promoted to contribute both directly to those involved in its activities and downstream to society as a whole. Not only jobs are created through the business, taxes are paid, public social expenditure is reduced, but a value that cannot be measured in units of money is created, but the usefulness of such companies is economically justified.

Conclusions

Countries where social entrepreneurship projects are a part of the market are more stable as social business organisations act as situation stabilisers during global economic crises, based on activity on local markets and less on global economic fluctuations.

The number of social and hybrid organisations in Latvia is very small and the sector they form is unexplored. Combining business principles with social aims is a new concept and in most cases, it depends on external impulses, such as the European social fund. The concept of social entrepreneurship projects is new and currently its development in Latvia can be described as the early stage of the sector formation, the conclusions on the future sector are theoretical and based on other countries' experience and academic studies. Social entrepreneurship projects can be a business oriented national economic policy tool for social services and for the welfare of all groups of society. The European Commission's social business initiative, explaining the definition of social enterprises, offers a business typology where three categories of social enterprises can be distinguished. In countries such as Latvia, where the sector is only starting to form, such a typology limits perceptions and more comprehensive sector development because it does not represent all sectors, it merely accounts for the most common and recognizable areas of social entrepreneurship. The lack of socio-economic and socio-political analysis, also the limited data of the



economic analysis of the sector, undermines the development of the sector. Therefore, new methods should be invested in the sector of research and development, since social benefit units are more difficult to express in specific, comparable units of measurement. A social enterprise may be recognized for the purpose of carrying out its business, for the resources involved in commercial activities and for the organizational structure, as well as for its multidimensional structure. Social enterprises are innovative variants of the existing economic mix and should therefore not be considered as a certain combination of organisations, companies, but should be aware of variations in their hybrid legal and economic forms. The role of different groups of society is essential for the realization of socially responsible business projects in Latvia. The importance of different consumer roles varies depending on the stage of the project. In creating a favourable environment for social entrepreneurship projects, the forward-looking and responsible action of politicians is essential in preparing a favourable environment for project making, allowing other groups of society to take part in planning the development, implementation and the implementation of specific project applications, as well as evaluation. In general, social inclusion contributes to the sustainable and smart development of the country and its regions, but local communities need to be informed and citizens needs to be involved.

References

- Alter K., Dawans V., Miller L. (2007) Social Enterprise Typology. Available: <http://www.4lenses.org/setypology/history>
- Austin J., Stevenson H., Wei-Skillern J. (2012) Social and commercial entrepreneurship: same, different, or both? http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-21072012000300003
- Gap analysis <https://www.clearpointstrategy.com/gap-analysis-template/>
- How to Choose Proper Business Model for Social Enterprise (2015) <http://socialinnovation.lv/wp-content/uploads/2015/07/Business-model-webam-small.pdf>
- Jermolajeva, E., Rivža, B., Aleksejeva, L., Šipilova, V., Ostrovska I. (2017). Smart Growth as a Tool for Regional Convergence: Evidence from Latgale Region of Latvia. Economics and Sociology, 10 (4), 203-224. doi:10.14254/2071-789X.2017/10- 4/16 http://www.economics-sociology.eu/?550,en_smart-growth-as-a-tool-for-regional-convergence-evidence-from-latgale-region-of-latvia
- Latvijas iedzīvotāju centieni uzsākt biznesu – vieni no augstākajiem Eiropā (2019) <https://bnn.lv/petijums-latvijas-iedzivotaju-agrinas-uznemejdarbibas-centieni-ir-vieni-augstakajiem-eiropa-313740>
- Leikuma L., (2012) Development of social entrepreneurship projects in Latvia, Riga, RTU
- Lešinska A., Litvins G., Pīpiķe R., Šimanska I., Kupics O., Bušēvica K. (2012) Latvija ceļā uz sociālo uzņēmējdarbību. [Latvia on the way to social entrepreneurship] Rīga: PROVIDUS.108 lpp. available: <http://providus.lv/article/petijums-latvija-cela-uz-socialo-uznemejdarbibu>
- Nyssens, M. et.al (2006) Social Enterprise at the crossroads of market, public policies and civil society <https://orbi.uliege.be/bitstream/2268/90482/1/Defining%20Social%20Enterprise.pdf>
- Social Entrepreneurship (2019) <https://www.ashoka.org/en-AT/focus/social-entrepreneurship>
- Social Enterprise in Europe Developing Legal Systems which Support Social Enterprise Growth (2015). European Social Enterprise Law Association. Prepared by Bates Wells & Braithwaite London LLP on behalf of ESELA © European Social Enterprise Law Association. https://esela.eu/wp-content/uploads/2015/11/legal_mapping_publication_051015_web.pdf
- Sociālā inovācija: izaicinājumi un risinājumi Latvijā (2019) Zin. red. Oganisjana K. Rīga: RTU. ISBN 978-9934-22-229-0 (pdf) file:///C:/Users/Lenovo/Downloads/9789934222290_Sociala_inovacija.pdf
- Sociālā vide (2019) ec.europa.eu/commission/index_lv myenvironment.eu/myenvironment/index_lv.htm



- Šipilova V., Ostrovska I., Jermolajeva E., Aleksejeva L., Oļehnovičs D. (2017a) Evaluation of Sustainable Development in Rural Territories in Latgale Region (Latvia) by Using the Conception of Smart Specialization. Journal of Teacher Education for Sustainability Volume 19, issue 1, 2017 Institute of Sustainable Education. Pp. 82-104. p-ISSN 1691-4147 e-ISSN 1691-5534 <https://doi.org/10.1515/jtes-2017-0006>
- Šipilova V., Ostrovska I., Aleksejeva L., Jermolajeva E., Oļehnovičs D. (2017b) A Review of the Literature on Smart Development: Lessons for Small Municipalities. International Journal of Economics and Financial Issues, 2017, 7(1), 460-469. <https://www.econjournals.com/index.php/ijefi>
- Šipilova V., Aleksejeva L., Ostrovska I. (2016) Testing the Approaches of Regional Development in Small Municipalities. IBIMA Publishing Journal of Eastern Europe Research in Business & Economics <http://www.ibimapublishing.com/journals/JEERBE/jeerbe.html> Vol. 2016, Article ID 677185, 17 pages DOI: 10.5171/2016.677185 <http://ibimapublishing.com/articles/JEERBE/2016/677185/>



Effective Utilization of Scientific-Technical and Innovative Potential as an Important Factor of the Development of the non-Oil Sector

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Abstract

It is substantiated in the article that in modern times, Azerbaijan has entered into one of the stages of economic development that its future dynamic and sustainable development will be largely depend on the development of the non-oil sector. The development, diversification and opportunities for raising the competitiveness of the non-oil sector will be determined by the efficient utilization of scientific and technical progress and innovation potential, taking into account the balance of resources, the degree of their use and the potential for action in the near future. In this case, taking into account historically formed structure of the country's economy, the formation and realization of the national innovation system, its potential absolute advantages, is of exceptional importance.

While forming the national innovation system according to the current scientific and technical innovation potential of our country: long-term availability of economic growth; the startup position of the development of the national economy; global trends in technical and technological development; the absolute advantages of the national economy; taking into account the existing level of infrastructure necessary for the development of the country's financial, scientific - technical, innovated experienced potential should be determined.

Keywords: Scientific and technical potential, Non-oil sector; Innovation system; Unity of education, Research

Introduction

Advanced development of the non-oil sector in Azerbaijan in recent years is conditioned by the sharp increase in investment through the oil and gas sector, the great potential of the scientific and technical potential of the country and the large financial resources derived from the activity of this field. It is precisely the result of that, at present more than 65% of the fixed capital invested in the country's economy accounts for 60% of GDP is the share of the non-oil sector.

As a result of the measures implemented in recent years for stimulating the introduction of innovative technologies into the non-oil sector in our country, numerous industrial parks, zones, neighborhoods, and agroparks meeting the modern standards of agriculture have been established. In order to ensure the innovative development of the agrarian sector, the works have been carried out in 193, 2 hectares of land in the 31 regions of the country amounted to 1.4 billion manats of 46 agro-parks, including 18 modern breeding complexes in 45.3 thousand hectares and 28 large-scale vegetable farms in 147.9 thousand hectares in 2018. Of which 18 agricultural grants were granted with a preferential loan of 114.3 million manats and the works have been implemented on the first stage of 17 agroparks.

Generally, for ensuring the innovative development of the agrarian sector within the State Program on socioeconomic development of regions in 2014-2018, the works have been carried out in establishing of agroparks and farmer ownerships in 257 thousand hectares in 33 regions, totaling 2.2 billion cubic meters. Of these, 17 agroparks and large farms are already operating, and 10 of them are expected to be in the operation in 2019.

In recent years, measures have been carried out for the effective utilization of natural resources, strengthening the activities of economic entities, establishing large-scale farms for the development of agricultural and food products from the field to the table of value chains. “Region Agaopark” in Goranboy, Gakh Agropark by “Ulu Agro” LTD, Ismayilly Agropark by “Buta Group” LTD in 2018 and 850 hectares of agricultural cooperative have been established in Sabirabad region.

Production of foodstuffs in the industry plays an important role in provision of the population with food products. We have constructed the Cobb-Douglas production function in Azerbaijan in 2005-2017 in our investigation, depending on the number of hired workers involved in basic foodstuffs and food production. For this purpose, the relevant statistical reports and information were used from the State Statistics Committee of the Republic of Azerbaijan.



It is known from the economic theory that the Cobb-Douglas function can be used to describe the dependence of the production volume on the basic funds and labor force. This function can be described as follows. (1)

$$\frac{Y}{L} = C \left(\frac{K}{L} \right)^\alpha \quad (1)$$

Here Y is the volume of production of food products (in terms of value), L is the number of hired workers engaged in the production of foodstuffs, and C is a fixed quantity, α - the coefficient of elasticity. If the time factor is taken into account, then it is possible to write the equation (1).

$$\frac{Y}{L} = C \left(\frac{K}{L} \right)^\alpha e^{\beta t} \quad (2)$$

(2) let's use the econometric package to determine the parameters of the model. The purchased model is described as follows.

$$\text{LOG}(Y/L) = 2.02385371968 + 0.673928203991 * \text{LOG}(K/L) + 0.0319938061912 * @TREND + [\text{AR}(3) = -0.883211175211, \text{UNCOND, ESTSMPL} = "2005 2017"] \quad (3)$$

Here @TREND - time (year), AR (3) shows the third compilation autocorrelation of the remains.

The equation (3) can also be described.

$$Y = 7,5674 K^{0.67} L^{0.33} e^{0.03t} \quad (4)$$

Its economic meaning is that the 1% increase in the volume of fixed assets in the food industry increases the volume of food products by 0.67% and the number of employees by 1%, increasing the volume by 0.33%. The coefficient of the time (t) variable shows that every year the production of products increases by 3% due to scientific and technical progress. The econometric statistics of the model is shown in Table 2.

Table 2. Econometric statistics of the model

Dependent Variable: LOG(YDIVL)				
Method: ARMA Maximum Likelihood (OPG - BHHH)				
Date: 05/23/19 Time: 15:36				
Sample: 2005 2017				
Included observations: 13				
Convergence achieved after 32 iterations				
Coefficient covariance computed using outer product of gradients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.023854	0.387507	5.222757	0.0008
LOG(KDIVL)	0.673928	0.110186	6.116292	0.0003
@TREND	0.031994	0.003970	8.058533	0.0000
AR(3)	-0.883211	0.136705	-6.460720	0.0002
SIGMASQ	0.001646	0.001317	1.249551	0.2468
R-squared	0.973918	Mean dependent var		4.719421
Adjusted R-squared	0.960877	S.D. dependent var		0.261461
S.E. of regression	0.051716	Akaike info criterion		-2.452897
Sum squared resid	0.021396	Schwarz criterion		-2.235609
Log likelihood	20.94383	Hannan-Quinn criter.		-2.497560
F-statistic	74.68048	Durbin-Watson stat		2.056420
Prob(F-statistic)	0.000002			
Inverted AR Roots	.48+.83i	.48-.83i	-.96	

Table 2 shows that each of the explanatory variables in the model is statistically significant at 99%, since Prob (C = 0) = 0,0008, Probe (K / L = 0) = 0,0003, Prob (@ TREND = 0) = 0.0000, probe (AR (3) = 0) = 0,0002. Determination coefficient was found as R-squared = 0.9739. This means that the change in the volume of



foodstuffs per employee is 97.39% dependent on the size of the main fund falling to each employee, ie, the level of labor funding.

One of the model adequacy indicators is that the residuals are not heteroskedasticity. The Breusch-Pagan-Godfrey test is used for this.

Table 4. Checking the heteroskedasticity of residuals

Heteroskedasticity Test: Breusch-Pagan-Godfrey				
F-statistic	0.054481	Prob. F(2,10)	0.9473	
Obs*R-squared	0.140124	Prob. Chi-Square(2)	0.9323	
Scaled explained SS	0.030102	Prob. Chi-Square(2)	0.9851	
Test Equation:				
Dependent Variable: RESID^2				
Method: Least Squares				
Date: 05/23/19 Time: 18:30				
Sample: 2005 2017				
Included observations: 13				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.004394	0.013935	0.315318	0.7590
LOG(KDIVL)	-0.000856	0.004006	-0.213765	0.8350
@TREND	7.15E-05	0.000218	0.327487	0.7501
R-squared	0.010779	Mean dependent var	0.001646	
Adjusted R-squared	-0.187065	S.D. dependent var	0.001825	
S.E. of regression	0.001988	Akaike info criterion	-9.404148	
Sum squared resid	3.95E-05	Schwarz criterion	-9.273776	
Log likelihood	64.12697	Hannan-Quinn criter.	-9.430946	
F-statistic	0.054481	Durbin-Watson stat	1.810597	
Prob(F-statistic)	0.947256			

It is shown from the table that Prob F (2,10) = 0,9473 and since the price is greater than 0,05, we conclude that the residuals are not heteroskedastic. Finally, let's check the normal distribution of the residuals. Let's carry out Jarque-Bera's normalization test.

As a result of the Jarque-Bera test, the mean and median values of the residuals are equal to 0.01 accuracy. Thus, Mean = 0.003931 ~ 0.000954 = Median.

The symmetry axis reads slightly to the right, meaning Skewness = 0,394519. Moreover, Kurtosis = 1,964642. Probability = 0.631953, and since the price is greater than 0.05, we conclude that the residuals are normally distributed by law. All the necessary tests of the econometric model were carried out and satisfactory results were obtained.

Finally, we conclude that the 1% increase in the volume of fixed assets in the food industry in 2005-2017 has increased the volume of food products by 0.67%, while the number of employees increased by 1% to 0.33%. It means that in the analyzed period, the volume of production was mainly due to the increase in the volume of basic funds, and thus, the labor stock accumulation. Considering that the share of machinery and equipment in the structure of industrial production funds increased from 36.3% in 2005 to 50.5% in 2017, then it can be concluded that intensive development on the basis of innovative factors tendencies have increased. Moreover, according to the econometric model research, the annual increase in food production by 3% on the basis of scientific and technical progress confirms our conclusion.



At the same time, it should be emphasized that, while the number of employees in the food industry increased 1.6 times in the analyzed period, then the volume of food products increased by 1.71 times for per employee, the increase in the number of employees did not play an important role in the growth of production.

As a result of these issues, the special value of the manufacturing industry has increased sharply in the structure of value added in the non-oil industry over the last decade. All this shows that in recent years, scientific-technical and innovation potential in the non-oil sector have widely used in the country.

Historically formed scientific-technical-technological and qualified personnel in the oil sector have given a strong impetus to the development of non-oil production in these areas in recent years in Azerbaijan. Thus, SOCAR Polimer, Baku NOH Ferrous and Foundry Company, Fobaterra plants which have great export potential in the past year, have been put into operation.

The analysis also shows that in the near future, our assessment in our country indicates that the development of the non-oil sector will largely depend on regional development. For this purpose, in the last 15 years, three regional development programs have been adopted and successfully implemented in our country. Researches reveal that improvement of the normative-legal and institutional framework of this process has an objective necessity to stimulate the scientific- technical and innovative development of non-oil sector.

Extensive coverage of both general and per capita expenditure on GDP to increase scientific and technical and innovation potential of our country, the sharp increase in GDP and the state budget, private enterprises and companies' financial resources, venture capital, direct foreign investments, loans and extra-budgetary funds require its utilization.

All these measures will eventually lead to the development of the non-oil sector and the implementation of the state budget to reduce oil dependence and, ultimately, to the sustainable and dynamic development of our country.

References

- Aliiev I, Soltanly I., Problems of modernization and provision of competitiveness of agrarian sector, Baku, "Europe" publishing house, 2017, p 428.
- Aliyev Sh.T. Strategic aspects of the development of agriculture and agrarian-industrial complex in Azerbaijan. // SILK Way, No.2, 2018, pp.23-32
- Report on the activities of the Cabinet of Ministers of the Republic of Azerbaijan in 2018. Baku: 2019, p.435.
- Industry of Azerbaijan 2005-2018. SSCAR. Baku. www.stat.gov.az



Econometric Analysis of Dynamics of Personnel Training in Tourism Sphere

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Abstract

According to the statistical data of recent years, tourism has been one of the ever-growing sectors in Azerbaijan. Thus, in the last five years, there has been a steady increase in the number of entrepreneurship subjects serving tourism in Azerbaijan and the number of foreign nationals traveling for tourism, correspondingly 4.5 and 8.5 percent. At present, the direct share of the tourism industry in the country's GDP and employment is 4.5 and 3.3 percent, respectively. In the article econometric analysis of the dependence on the relationship between tourism industry graduates and their development has been done. The regression equation of the dependence of the number of graduates studying tourism on the number of tourists in the country and the dependence of the tourism sector's GDP on the number of graduates in the tourism sector were estimated using the Eviews software based on 2008–2017 statistical data using the least squares method.

Keywords: Tourism, Econometric model, Personnel potential, GDP, Tourism education.

Introduction

The personnel potential of the tourism sector is organized and managed in accordance with its production program. Thus, the total volume of services and its performance is determined by the total workforce of each person. Training of personnel is formed in the educational system. Their use specializes in a specific touristic facility (Alirzayev, 2011). Classification of tourism is scientific and practical issue. It plays a role in understanding the essence of the world's tourism exchange and setting up knowledge. Changes in the volume and quality of tourist services, the emergence of new types and forms of tourism activities are always in the process of improvement and can not be considered a finished process. Accordingly, personnel improvement in this area is always actual (Kasumov R.M., 2012).

Azerbaijan is very popular with oil and gas resources. In the articles of Birdsall N., Pinckney T., Sabot R. (2001); Blanco L., Grier R. (2010); Corden W. M., Neary J. P. (1982); Davis G. (1995); Engerman S., Sokoloff K. (2002); Gylfason T. (2001); Gylfason T. (2008) use and exploitation of natural resources in some countries have been studied. Yadulla Hasanli, Nazim Hajiyev, Fail Kazimov (2019); Yadulla Hasanli, Simrah Ismayilova (2017). A number of investigations have been carried out in this regard in the case of Azerbaijan in the articles of Gorkhmaz Imanov, Yadulla Hasanli (2014).



The geographical location, natural and climatic conditions and rich historical monuments of Azerbaijan show that the development of the tourism sector is favorable. The development of the non-oil sector, including tourism, is a topical problem, with the use of oil revenues to ensure the country's sustainable development.

Julius Arnegger, Marc Florian Herz (2015), explored the impact of tourism on economic and cultural development of Azerbaijan based on the input-output model. Yadulla Hasanli, Sailau Baizakov, Sudabe Salihova (2019) published a comparative analysis of the influence of investment in tourism on the economic development indicators of these countries, using the INPUT-OUTPUT MODEL OF AZERBAIJAN, KAZAKHSTAN AND IRAN which is rich with oil and gas reserves.

Method

During the research, research methods like systematic approach, logical summarization, econometric modeling, statistical analysis, mathematical-economic modeling were used. The research database is compiled by the State Statistical Committee of the Republic of Azerbaijan, the Ministry of Education and its annual reports and indicators.

Findings

As noted already, tourism is not only limited to presenting the country's cultural, historical and natural resources to the country's visitors, but also the economic activity. From this point of view, opening up a few questions from the perspective of the research would increase the harmony of the research. These questions are mainly related to the impact of each tourist coming to the country on tourism personnel training and the impact of tourism personnel training on the gross domestic product of country. In this regard, the database provided in Table 1 will be used.

Table 1. Number of graduates who have studied tourism specialty during 2008-2017

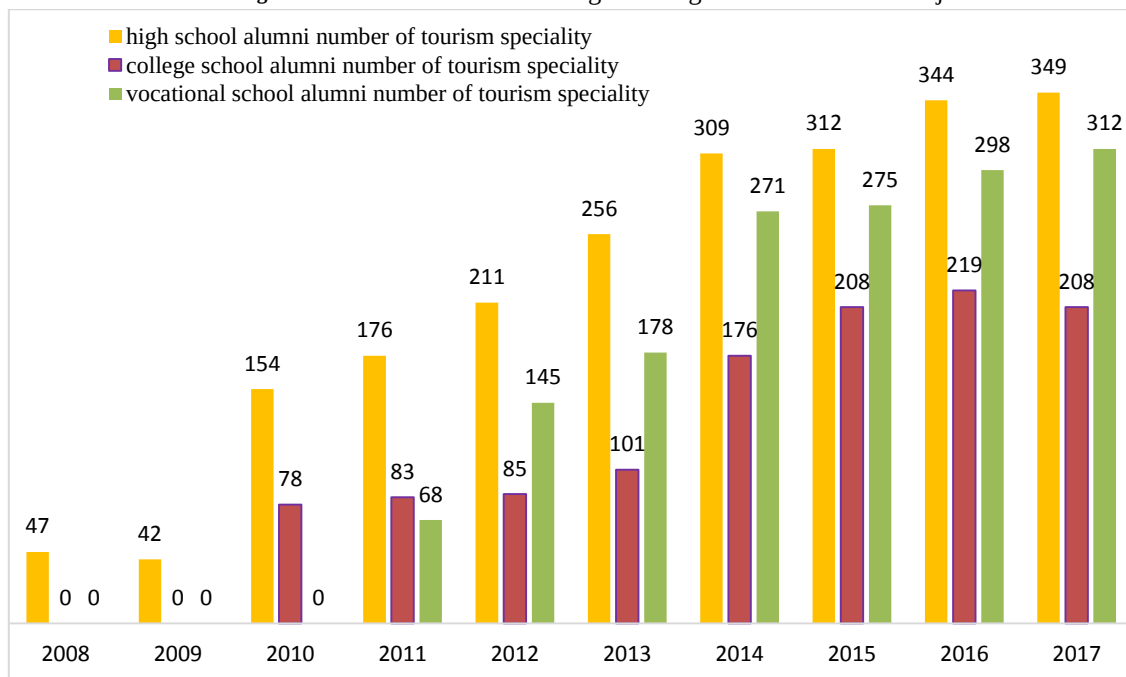
Years	Total number of graduates in tourism sector	Number of graduates graduated from high school on tourism	Number of college graduates who graduated from tourism speciality	Number of graduates graduating from vocational school in tourism area	GDP generated by tourism sector (mln. AzN)	Tourist number
	TGTS	High scholl	College	Vocational	GDP	TN
1*	2*=3*+4*+5*	3*	4*	5*	6*	7*
2008	47	47	0	0	560,2	1 898 939
2009	42	42	0	0	719,5	1 830 367
2010	232	154	78	0	881,5	1 962 906
2011	327	176	83	68	1300	2 239 141
2012	441	211	85	145	1549,6	2 484 048
2013	535	256	101	178	1828,4	2 508 904
2014	756	309	176	271	2106,6	2 297 804
2015	795	312	208	275	2362,2	2 006 176
2016	861	344	219	298	2 746,1	2 248 773
2017	869	349	208	312	3 151,0	2696745



As can be seen from the table, the integration of specialized tourism personnel into the labor market has been rising at an increasing pace since 2008. Undoubtedly, this is not a coincidence. Thus, starting from 2006, Azerbaijan has begun to allocate a special place in the field of tourism for its strategic development goals. Azerbaijan has the potential to attract a large number of international tourists. Tourism is increasingly becoming an important part of Azerbaijan's economy. In Azerbaijan, 2011 has been declared the "Year of Tourism." Today works are carried out to draw tourists from foreign countries. In addition, works are carried out to promote tourism opportunities of Azerbaijan abroad. Tourism is increasingly becoming an important part of Azerbaijan's economy. Tourism receipts account for 8.4% of the country's GDP and has the potential to contribute further to the non-oil diversification of the economy. The boom in the country's oil and gas industries has given a boost to the development of the tourism sector creating a demand for more and improved accommodation facilities, infrastructure and services. As Azerbaijan is establishing itself on the international arena, the country regularly hosts regional and international events and international exhibitions. The number of hotel establishments currently operational in Azerbaijan has increased from 320 in 2007 up to 527 in 2014, including such world famous brands as Hilton, Marriott, Four Seasons, Kempinski, Jumeirah and Fairmont (Azerbaijan Statistic Committee, 2015).

The successful oil strategy shows itself on non-oil sector in fast-growing Azerbaijan Republic. Tourism industry is one of the important fields of non-oil sector. Due to the potential of increasing incomes to the state budget, Azerbaijan Government targeted to develop tourism industry and make it the most sustainable and competitive part of the economy. Azerbaijan Republic is one of the countries with huge potential of tourism resources. Both natural geographic location and the position in the modern world made our country more interesting place for tourists. It is more important having professional and qualitative human resources for increasing the number of tourists coming to us. According to experts, the demand to tourism personnel will be more than 75000, until 2023. But now, professional cadre shortage on tourism is one of the main problems, preventing the development of perspective tourism industry of our country

Diagram 1. The number of students graduating in tourism in Azerbaijan



Source: The State Statistical Committee of the Republic of Azerbaijan, 2018



As you can see from the diagram, the number of students graduating in tourism has increased year by year and reached the highest level in 2017.

Now let's apply the economic mathematical modeling capabilities based on the given data and determine the forecasting models. Let's first of all highlight the impact every tourist who travels to the country on tourism personnel training. For this purpose, econometric models of mutual interaction have been studied in the following forms:

$$\text{LOG(TGTS)} = C(1) + C(2) * \text{LOG(NA)} + u \quad (1)$$

Here, the TGTS is the number of graduates studying tourism, the NA is the number of tourists coming to the country, and u is a random departure. $C(1)$ and $C(2)$ are the parameters of the model. (1) Finding parameters of the regression equations and checking the adequacy of the obtained models was made by the Eviews Applied Software Package with econometric modeling methods.

The regression equation of the semiconductor trend model (2) of the number of graduates studying tourism has been estimated econometrically based on the data in the table. The result of the Eviews system was as follows:

$$\begin{aligned} \text{LOG(TGTS)} &= -32.11 + 2.64 * \text{LOG(NA(-4))} \quad (2) \\ \text{s.s.} &\quad (1,49) \quad (0,06) \\ \text{t-test:} &\quad (3.78) \quad (4.53) \\ \text{prob.} &\quad (0.01) \quad (0.00) \\ R^2 &= 0,80 ; \quad R^{2*} = 0,77 ; \quad DW = 1,6 \end{aligned}$$

The model's statistical characteristics and relevant tests show that the model is adequate. (see Appendix 1) So, the standard errors of the parameters are considerably smaller than the estimate found by the smallest squares method. The determinant coefficient (R^2) and the modified determinant coefficient estimate (R^{2*}) are closer, and the F-statistic estimate is satisfactory, indicating that the determinant coefficient is significant. $R^2 = 0.80$ indicates that number people who is coming with tourism purpose to the country change graduates studying tourism (TGTS) 80% is explained. The remaining 20% of the change occurred at the expense of other factors that were not considered. Durbin-Watson statistics is 1.6 (2 is the ideal option), indicating that the remainder of the model is not the 1st compact autocorrelation. This shows that the model is also important for forecasting.

(2) suggests that the 1% increase in the number of tourists coming to the country to increase the quality of the personnel working in the tourism sector increases the number of graduates in the tourism sector by 2.64% four years later.

Now, another aspect of the research is to determine the economic effectiveness of the number of graduates studying in tourism. To do this we need to determine the impact of graduates studying tourism on the gross domestic product in tourism. For this purpose, econometric models of mutual interaction have been studied in the following forms:

$$\text{LOG(T\_GDP)} = C(1) + C(2) * \text{LOG(TGTS)} + u \quad (3)$$

Here, the TGTS is the number of graduates studying tourism, T_GDP - the gross domestic product generated in the tourism sector, and u - random departures. $C(1)$ and $C(2)$ are the parameters of the model. (1) Finding parameters of the regression equations and checking the adequacy of the models obtained was made by the Eviews Applied Software Package with econometric modeling methods.



The regression equation of the gross domestic product of the semiconductor trend model (4) generated in the tourism industry is estimated econometrically based on the data in the table. The result of the Eviews system was as follows:

$$\begin{array}{lcl} \text{LOG(T\_GDP)} = 5,03 & + & 0,42 * \text{LOG(TGTS(-1))} & (4) \\ \text{s.e.} & & (0,23) & (0,04) \\ \text{t-test:} & & (21.48) & (10.38) \\ \text{prob.} & & (0.00) & (0.00) \end{array}$$

$$R^2 = 0,94 ; \quad R^{2*} = 0,93 ; \quad DW = 1,7$$

(4) the model's statistical characteristics and relevant tests indicate that the model is adequate. (see Appendix 2) So, the standard errors of the parameters are much smaller than the smallest squares method. The determinant coefficient (R²) and the modified determinant coefficient estimate (R^{2*}) are close, and the F-statistic estimate is satisfactory, indicating that the determinant coefficient is significant. R² = 0.94 indicates that 94% of the total number of graduates in the tourism industry (TGTS) changes in the Gross Domestic Product (GDP) in the tourism sector. The remaining 6% of the change occurred at the expense of other factors that were not considered. Durbin-Watson statistics is 1.7 (2 is desirable), indicating that the remainder of the model is not the 1st compact autocorrect. This shows that the model is also important for forecasting.

Results, Conclusions and Recommendations

The beautiful nature of Azerbaijan, hospitality of its people, the country's capital with its super modern and ancient buildings draws the attention of all tourists visiting this South Caucasian country. In recent years, the creation of a diversified tourism infrastructure in Azerbaijan has increased the interest of foreign tourists to the country.

There are many opportunities for tourism in our country, including rural, health, environmental, cultural, social, commercial, sport and etc. Simplification of visa regime also plays a major role in the development of tourism in Azerbaijan. Currently, citizens of a number of countries get visas right at the Azerbaijani airports, while other tourists can visit the country by getting online tourist visas.

Model (2) shows that the 1% increase in the number of tourists coming to the country to increase the quality of the personnel working in the tourism sector increases the number of graduates in the tourism sector by 2.64% four years later.

Model (4) shows that the 1% increase in the number of students and graduates in tourism increases the tourism GDP by 0.42% in order to increase the quality of the cadres working in tourism.

References

- Alirzayev A.K., (2011), Economy and management of tourism. Baku: Publishing House of Economic University.
- Andriotis, K., & Vaughan, D.R. (2004). The tourism workforce and policy: Exploring the assumptions using Crete as the case study. *Current Issues in Tourism*, 7 (1), 66-87.
- Birdsall N., Pinckney T., Sabot R. (2001). Natural Resources, Human Capital, and Growth // *Resource Abundance and Economic Growth* / R. M. Auty (ed.). Oxford: Oxford University Press, P. 57—75.
- Blanco L., Grier R. (2010). The (Non) Effect of Natural Resource Dependence on Human and Physical Capital in Latin America. Mimeo.



- Brooks, C., (2002), *Introductory Econometrics for Finance*, Cambridge University Press.
- Bruff C., Dean., A. & Nolan J. (2005). Student perceptions of the educational quality provided by different delivery modes. 2nd Asia-Pacific Educational Integrity Conference, University of Newcastle: Australia.
- Corden W. M., Neary J. P. (1982). Booming Sector and De-Industrialization in a Small Open Economy // The Economic Journal. Vol. 92, No 368. P. 825 — 848.
- Davis G. (1995). Learning to Love the Dutch Disease: Evidence from the Mineral Economies // World development. Vol. 23, No 10. P. 1765 — 1779.
- Engerman S., Sokoloff K. (2002). Factor Endowments, Inequality and Paths of Development among New World // NBER Working Paper. No 9259.
- Imanov Gorkhmaz, Hasanli Yadulla (2014). Forecasting of oil and gas extraction in Azerbaijan on the basis of Hubbert's model. The journal of economic sciences: Theory and practice, pp.40-52, Volume 71, #1/2014, ISSN 2220-8739.
- Gylfason T. (2001). Natural Resources, Education, and Economic Development // European Economic Review.. Vol. 45, No 4 — 6. P. 847—859.
- Gylfason T. (2008). Development and Growth in Mineral-Rich Countries // CEPR Discussion Paper. No 7031.
- Gee, C.Y. (2002). Tourism Employment Issues: The PATA Viewpoint. In: WTO. Human Resources in Tourism: Towards a new paradigm. (pp. 71-77). Madrid: OMT.
- Hasanli Yadulla, Baizakov Sailau, Salihova Sudabe (2019). ASSESSMENT OF THE IMPACT OF TOURISM SECTOR ON THE ECONOMY OF AZERBAIJAN, KAZAKHSTAN AND IRAN USING INPUT-OUTPUT MODELS. 37th International Scientific Conference on Economic and Social Development - "Socio Economic Problems of Sustainable Development". pp.671-681.
- Hasanli Yadulla, Hajiyev Nazim, Kazimov Fail (2019). The Impact of Natural Resource Exploitation on Balanced Development with Modified Reproduction Scheme Based on Supply Chain Management. International Journal of Supply Chain Management, Vol. 8, No. 1, February. pp.438-443.
- Hasanli Yadulla, Ismayilova Simrah (2017). Econometric model of dependence between oil prices and the world's external debt level and oil production. Economic Annals-XXI, 166(7-8), p.11-15.
- Kasumov R.M., 2012, International tourism market, Monograph, Baku: Publishing House of Economic University
- Julius Arnegger, Marc Florian Herz (2015). Economic and destination image impacts of mega-events in emerging tourist destinations. [Journal of Destination Marketing & Management](#). 5(2).
- Mammadov J.A., Balalov B., (2014). Visiting tourism and ways of its development in Azerbaijan, Baku: Publishing House of Muterijim
- Witt, S. F., Song, H., Louvieris, P., (2003). "Statistical testing in forecasting model selection", Journal of Travel Research 42, p.151-158.
- Witt, S. F., Song, H., Wanhill, S., (2004). "Forecasting Tourism Generated Employment", Tourism Economics (forthcoming)

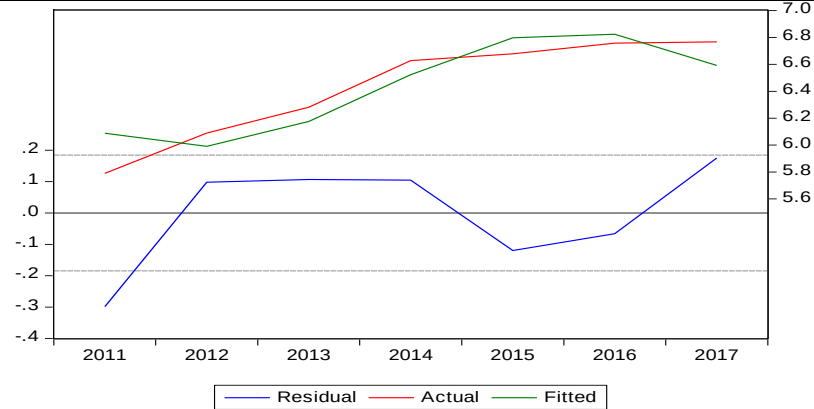
Appendix 1

Table A1.1. Main statistical characteristics of the Model (2) and appropriate adequacy tests

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-32.10824	8.499942	-3.777466	0.0129
LOG(NA(-4))	2.642113	0.582758	4.533810	0.0062
R-squared	0.804347	Mean dependent var		6.427585
Adjusted R-squared	0.765216	S.D. dependent var		0.380794
S.E. of regression	0.184512	Akaike info criterion		-0.307248
Sum squared resid	0.170223	Schwarz criterion		-0.322703
Log likelihood	3.075370	Hannan-Quinn criter.		-0.498260



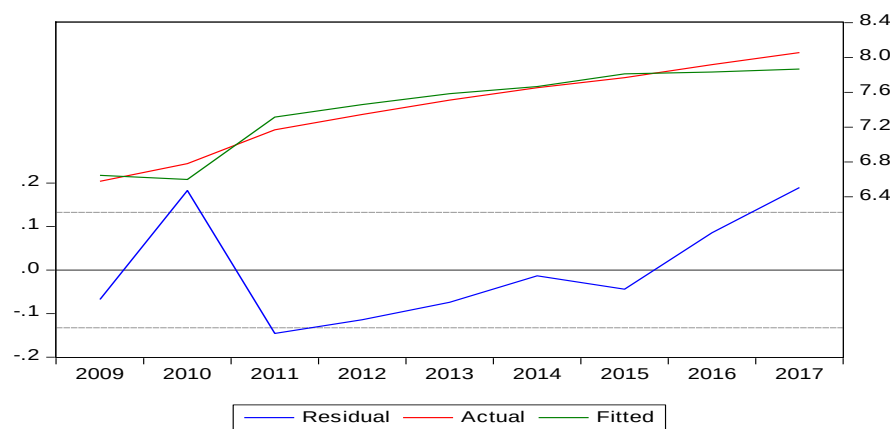
F-statistic	20.55543	Durbin-Watson stat	1.576824
Prob(F-statistic)	0.006204		
Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.931068	Prob. F(1,5)	0.3789
Obs*R-squared	1.098871	Prob. Chi-Square(1)	0.2945
Scaled explained SS	0.358115	Prob. Chi-Square(1)	0.5496



Appendix 2

Table A1.2. Main statistical characteristics of the model (4) and appropriate adequacy tests

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.031068	0.234255	21.47685	0.0000
LOG(TGTS(-1))	0.419452	0.040391	10.38484	0.0000
R-squared	0.939048	Mean dependent var		7.420093
Adjusted R-squared	0.930341	S.D. dependent var		0.502301
S.E. of regression	0.132572	Akaike info criterion		-1.010245
Sum squared resid	0.123028	Schwarz criterion		-0.966417
Log likelihood	6.546101	Hannan-Quinn criter.		-1.104825
F-statistic	107.8448	Durbin-Watson stat		1.668407
Prob(F-statistic)	0.000017			
Heteroskedasticity Test: Breusch-Pagan-Godfrey				
F-statistic	0.378677	Prob. F(1,7)		0.5578
Obs*R-squared	0.461884	Prob. Chi-Square(1)		0.4967
Scaled explained SS	0.120922	Prob. Chi-Square(1)		0.7280





Assessment Problems of Sustainable and Continuous Development the Potential of the National Economy

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Abstract

Complex research, study, synthesis, suggestions and recommendations for solving problems and principles related to the assessment of the potential for sustainable and continuous development of the national economy in modern conditions. Analysis of the current problems of assessing the sustainable and continuous development of the national economy, research and study the features of the main indicators of the development of the national economy and their synthesis. In addition to universal scientific methods, theoretical foundations and methodological features of sustainable and continuous development of the national economy, models of national economic development, concepts, strategies, publications on macroeconomic problems of sustainable development of the national economy, scientific works, statistical data, legislative acts, etc. are organized. In the review of practical examples of high efficiency in the context of global economic hazards to study more effective mechanisms for assessing the sustainable and continuous development of the national economy, difficulties were noted. The practical significance of the study is explained by the possibility of using existing mechanisms of action in the context of different approaches, taking into account the post-oil period, sustainable and continuous development potential of the national economy, re-modeling the potential of key indicators of sustainable development of the national economy, as well as the use of specific action programs and activities. The main group of mechanisms and performance indicators has been identified, which makes it possible to assess the sustainable and continuous development of the national economy, and shows the effective directions for the development of the national economy. On the other hand, the problems of diversifying the economy and improving its structure should be solved by maximizing the potential of the oil and gas industry in the interests of the sustainable and continuous development of our country. Azerbaijan should develop and apply economic development mechanisms that fully incorporate the principles of renewable and sustainable development of its economic development model, taking into account environmental factors in the near future. A serious assessment of the principles and orientations of sustainable development that are adequate to the characteristics of the transformation of global economic development processes and global economic challenges, making more efforts to solve global problems, contributing to global problems of food security, improving living standards, balancing society and living standards, human capital development and achieving sustainable development of the national economy and society as a whole, should be consistently addressed and measures which matured must be taken continuously.

Keywords: National economy, Economic development model, Resource potential, Sustainable development.

Introduction

A comprehensive research, study and summarizing of the criteria and principles of sustainable and resistant development of the national economy and adequate consideration of modern global economic challenges, assessment of development potential is of utmost importance. Pivotal points of the development and growth potential of the national economy of each country ought to be assessed based on the objective reality and development prospects for the continuous period should be identified. It should be noted that economic opinions and views on this issue in Azerbaijan are largely based on the forming the most productive development sources of the national economy from the country's resource potential through efficiently benefiting self-development features of the national economy, and advancing economic development model in this direction as a result of enhancing the non-oil sector. As it was mentioned in the beginning, the implementation processes of the relevant strategic targets have already intensified. However, Azerbaijan is persistent to get up to the level of developing countries, using the opportunities of its independence, and one can be proud of it not just as a researcher, but also as an ordinary citizen. In fact, nature and Allah (the God) have granted Azerbaijani people with sufficient natural resources - national resources, a wide range of hydrocarbon resources - oil and gas, minerals, ore and non-ore, fertile land resources, favourable climate conditions, colourful fauna and flora, biodiversity, lands, which are



suitable for the cultivation of important agricultural products to provide food security for the population, crops and pastures for breeding livestock. The growth dynamics of the population in our country is pretty favourable in terms of demographics and socio-economic development and it has a strong potential. Thus, the availability of the necessary labour resources provides for the acceleration of socio-economic development in all regions of the country, maximum efficient utilization of natural and economic resources of the regions, creation of enterprise network, development of agricultural fields, establishment of processing facilities, development of tens of thousands of family, peasant, and farmer businesses. The population of Azerbaijan is very loyal to agriculture and cattle-breeding, livestock and land; ancient and traditional employment characteristics in these areas are still in place, and most of the people are inclined to work effectively for the development of their farmlands in their native lands. So, in general, we will not be mistaken to highly assess the potential of the spheres of national economy throughout the whole country - from large industrial centres to the remote rural areas, in organizing and developing a broad network of economic sectors with added value and various services.

Analysis of theoretical, methodological and practical aspects of assessing the sustainable and continuous development the potential of the national economy

It should be noted that, due to the introduction of new mechanisms in the sustainable and resistant development of the national economy and the increasing role of modern technologies, it is important to provide a conceptual approach to the objective evaluation of the country's diverse natural resources and minerals of industrial importance, their disclosure and rational utilization conditions. The objective assessment of the natural resources of Azerbaijan, the efficient utilization of existing natural resources, raw material resources, climate resources, forest and water resources and biodiversity must be ensured. Our country is rich in raw mineral materials, fuel and hydrocarbon resources, useful ore and non-fossil resources, soil, forest, biological, water, preserves, greenery, resorts and recreational resources and etc [9]. The industrial importance of minerals extracted for ore processing is very high in our country and the main resources of these raw materials are in mountainous areas. There are many deposits in Azerbaijan to produce ferrous and non-ferrous metals, and their potential is sufficient for the establishment of strong industries in these spheres. Relevant examples may include aluminium, iron, cobalt, copper, gold, zeolite, and other deposits [13; 10]. For instance, the industrial value of iron resources is about 250 million tons in the Dashkasan district. For its resources, Dashkasan iron ore deposit is ranked the first in Europe and the second in the world following China. Furthermore, there are copper and gold deposits in Gadabay district of our country, and currently, processing these deposits and production are underway. But we have to admit that a small part of the existing potential is utilized here. The development of aluminium industry is considered to be one of the priority areas, large aluminium plants used to be operational in Sumgait and Ganja, and most of their products were exported abroad. In recent years, large projects are being implemented to restore the potential of the aluminium industry. The alunite ore deposits, which are very useful, are located in Zaylik - Dashkasan region. It should be noted that the total number of deposits non-ore reserves counted more than 300 in our country.

The resources of the chalk, which is a valuable raw material source and of high industrial value, are over 70 million tons. Additionally, the industrial reserves of bentonite clays are estimated around 85 million tons and gypsum, bentonite clays, stone-salt, construction materials and other deposits are of highest industrial importance amongst non-ore resources [4; 1]. In our country there is a tradition of widespread use of sawdust in the construction of buildings and facilities, and it should be pointed out that the sawdust stocks amount around 300 million tons.

It is worth mentioning that the role of land resources in the forming and assessment of sustainable and resistant development potential of the national economy is great and the land is assessed as a valuable natural resource. There are 82 types of the world-wide known land types in our country and the total land area is 8.6 million hectares. The total area of agricultural land is 4.7 million hectares [2]. In comparison to other parts of the world the territory of Azerbaijan is scarcely covered by forests, with a total of 11.8% of the country's total area. At the



same time, industrial potential of the existing forest resources in our country is weak [8]. 49% of forest cover in Azerbaijan consists of forest massifs in the Greater Caucasus, 34% in the Lesser Caucasus region, 15% in Tallish, and 2% in the Aran region. In the forest covered areas of the country 31.68% are occupied by peanut, 26.01% by hawthorn, 23.4% by oak and 3.58% by poplar trees. Azerbaijan has its own specific biological diversity compared to other countries in the world. Thus, the fauna of Azerbaijan includes 18,000 living creatures. There are 4200 species in Azerbaijan's flora, along with about 500 types of moss, 460 species of trees and shrubs. Most of the biodiversity of Azerbaijan is concentrated in the Caspian Sea. There are 1809 types and groups of biological entities and living creatures in the sea. There are 733 species of plants in the Caspian Sea, and only a few of them - solely 5 are floricultural plants, and the rest are algae. It should be noted that drinkable water reserves and sources of drinkable water are not immense. In general, the volume of the surface water resources of our country is about 27 cubic km. There are 8,359 rivers in our country, with a small part of them - 171 having big water potential. The length of these rivers is more than 25 kilometres. Major raw minerals and fuel reserves of Azerbaijan are concentrated in the national sector of the Caspian Sea. The volume of oil reserves of the Caspian Sea in Baku and Absheron archipelagos of Absheron peninsula is 3,5 - 5 billion cubic meters tons. Out of 71 existing oil and gas fields in the country, 28 are located in the Caspian Sea, and 43 are onshore fields [12]. It is remarkable that our country has a strong mineral and raw material base for the development of black and nonferrous metallurgy industries. Bentonite clay reserves only in Gazakh region amount to 100 million tons and this raw material is of great importance for the development of ferrous metallurgy. In Nakhchivan and in the occupied Zangilan territory, there are big raw material reserves for the production of calcium soda. Thus, the reserves of the rock salt of industrial importance in the Nehram field are 730 million tons and reserves of chemical lime in Zangilan deposit are estimated about 130 million tons. Our country has over 240 types of non-ore and construction material deposits of industrial importance necessary for development of construction industry.

It should be noted that the adequacy and efficiency of economic systems and mechanisms, which are integral part of the national economy, are crucial in ensuring the sustainable and resistant development of the national economy. Ensuring the inclusive growth of the national economy and providing for the efficient and productive functioning of economic institutions taking into consideration global problems are important requirements. This setup makes it possible to create more favourable environment for the formation of potential and conditions necessary for the sustainable development of the economy. Furthermore, balanced economic mechanisms and resource potential are required for sustainable economic development. Problems of functioning of economic systems and mechanisms in anti-crisis conditions and overcoming competition should also be addressed. Realization of sustainable development principles is crucial in the development and identification of key priorities of the socio-economic policy by the state. As part of the sustainable development strategy, many important components of socio-economic development, as well as resource potential, demographic development problems, placement of productive forces, poverty and unemployment should be addressed. In addition, the key principles of sustainable development should be systematized, and action mechanisms should be designed for a continuous period also envisaging the country's regions. The regional principles of sustainable development include ensuring innovative development and diversification of the economy, evolving the structure of production, improving the living standards of the population, forming regimes of efficient utilization of natural resources and energy carriers, enhancing the efficiency of the ecological-economic system and strengthening environmental security. A comprehensive review of the economic, social and environmental factors is required to ensure the region's sustainable development [5, p.10]. At the same time, GDP per capita, GDP energy intensity, physical volume index of fixed assets, share of capital investments per GDP, share of small and medium enterprises in GDP, human potential development index as social indicators, budget expenditures per capita, average longevity of the population, last but not least, environmental pollution indicators such as environmental pollution, area of protected territories, volume of investments directed to environmental protection and others are considered as main indicators of sustainable development. Systematic analysis of the existing problems of the national economy and the implementation of practical mechanisms of the economic



system and assessment of the immunities of used tools to global economic challenges are of great importance [14]. In relation to increase of global economic tendencies and dangers the fundamental reviews of the problems of the optimal determination and organization mechanisms of development tendencies of the national economics in the post-oil period, the modelling of their conceptual solution ways in present time are the strategic goals which face many countries of the world and Azerbaijan among them. The concrete goals connected with realization of strategic goals of different fields of national economics in the post-oil sector, service sector including, were defined and the forecasts were prepared for the period of 2020-2030 by Azerbaijan government. But it is important to form alternative views and to prepare forecasts for these prognosis and strategic goals. In the acceptable for us variant the forecasts of the main social economic indicators in Azerbaijan Republic in 2020-2030 were given in Table 1.

Table 1. Main social economic indicators forecasts of Azerbaijan Republic for 2020--2030

Main social economic indicators	Unit of measure	Fact			Author forecast		
		2015	2016	2017	2020	2025	2030
GDP	billion. USD	53.0	37.8	40.75	42	50	59
GDP per capita	USD	5561.5	3926.5	4131.62	4200	4700	5300
GDP structure, and also:	billion.USD	100	100	100	100	100	100
Industry	billion.USD				22.8	22.95	24.19
Agriculture, forestry and fishery	billion.USD				5.4	5.88	7.08
Service sector	billion.USD				12.6	20.0	26.55
The others	billion.USD				1.2	1.17	1.18
GDP structure and also:	%	100	100	100	100	100	100
Industry	%				54.29	45.9	41
Agriculture, forestry and fishery	%				12.86	11.76	12
Service sector	%				30	40	45
The others	%				2.86	2.35	2
Total currency reserve	billion.USD	38.59	37.52	41.10	50	60	70
Foreign trade turnover, and also:	billion.USD	25.8	21.6	24.26	30	36	40
Import	billion.USD	9.2	8.5	8.78	9	10	10
Export	billion.USD	16.6	13.1	15.48	21	26	30

Note: Table 1 was prepared by the author on the basis of Economic indicators of Azerbaijan. Baku, 2017. - 824 p. and Azerbaijan in figures, 2018. Baku, 2018.- 286 p. <http://www.azstat.org>).

Not depending on the attitude the opponents gave to the forecasts indicated in Table 1 we would like to highlight one point. If Azerbaijan economics is not able to rationally build the mechanisms of use of non-oil sector fields' potential neither the government will be able to achieve its strategic goals nor will the forecasts given by the expert researches be able to prove their value. The problems of production increase of wide network of the non-oil national products in Azerbaijan and maximum rational use of the potential of their launch to the world market as national brand have to be solved. Therefore we believe that the realization of a group on strategic measures should be provided promptly. Certainly, in this case, each detail of the above-mentioned indicators of sustainable economic development has to be researched, dynamic development elements have to be focused on, and relevant measures have to be taken to eliminate the obstacles to sustainable development. The most important indexes and indicators of sustainable development - the economic and social potential, natural resource potential, environmental potential and environmental protection factors, institutional capacity, investment-innovation environment and its attractiveness potential, economic security potential and the potential for managing economic processes have to be taken into consideration. Impact of each index and indicator on sustainable development should be measured and assessed [17]. In these processes, it is crucial that the strategic vision be considered and evaluated based on objective reality in order to enable the implementation of the measures as required to ensure sustainable development. The success of sustainable development depends largely on these



factors [15]. The issues of ensuring a more efficient development of the national economy under the conditions of market economy, improvement of its structure in line with the current requirements and ensuring the adequacy of the principles and mechanisms of economic activity with the global economic challenges should be solved. Establishment and strengthening of mutual relations between the state and the society should be ensured in order to form and sustain comprehensive, permanent and productive growth sources for the national income, national production, and national product. The economic reforms should be directed to the solution of global problems, in particular, to reduce the unemployment and poverty level through the inclusive development of the national economy. In brief, the problems of sustainability and productivity of socio-economic systems should be eliminated in sustainable economic development [7, p.101]. The functioning of the socio-economic systems creates strong confidence in the society, increases the economic activity of the population, creates favourable conditions for the development of national economic development programs and concepts within the framework of mutual trust and enables the identification of maximum optimal methodological approaches to sustainable development of the country in all aspects, including regional aspects. Close monitoring of significant indicators in methodological approaches to objective analysis and assessment of sustainable development of regional economy and indicators of living standards of those living in these regions are of great importance [6]. The Concept Paper and National Strategy for the long-term period of socio-economic development have been developed in many post-Soviet republics, including the Russian Federation and Belarus. For instance, in the Russian Federation, on the basis of the National Concept, it is envisaged to solve socio-economic development problems for a continuous period, to achieve dynamic development on target indicators, and to overcome priority tasks. It is considered expedient to pay more attention to the new challenges emerging from the realities and tendencies of global competition environment, the new directions of technological changes, and the increasing role of human capital in ensuring sustainable economic development. For a continuous period, it is important to develop human potential in the country and implementation of relevant systematic measures, to create highly competitive institutional environment, to stimulate entrepreneurship and to intensify capital attraction to the economy, and to diversify the structure of the economy based on the innovative development. On the other hand, it is important to address the problems by fully benefiting from the existing potential of the country's competitive sectors through the improvement of mechanisms that contribute to sustainable development of the economy. The process of implementation of the National Strategy for the Socio-Economic Development for the period up to 2020 in Belarus, another post-Soviet republic is also worthwhile mentioning [11]. The main purpose of this strategy is to achieve maximum empowerment of socio-economic development and economic security in the country. Each country should make maximum efforts to find more optimal ways to address its socio-economic development problems and identify ways to address these problems in the context of sustainable economic development for a continuous period. Researcher A.Vasilyeva believes that it is important to predict the sustainable development of any country and find ways to optimize solutions to sustainable development challenges that are seen as a paradigm of the new economic system for a continuous period. Along with socio-economic institutions in the centre of sustainable economic development model, established on five key factors, society and economy, environmental factors, and science and technology are of great importance. In addition, we had already mentioned that regional problems of sustainable development should always be kept in the spotlight. Thus, most of the natural resources and economic resources, productive forces are located in the regions of the country. From this point of view, the sustainable development of the regions should be at the forefront of the government's priorities. In a number of cases, although short-term measures have higher outcome, it is more expedient for the state to have a continuous economic policy envisaging to raise the welfare of the population and to ensure the sustainable development of the national economy. Conceptual approaches to this issue are characterized as one of the necessary requirements. On the other hand, it is important to pay special attention to the priority sectors and targets of the national economy along with regulating the development processes of the national economy and adequately modelling its resource potential.

Conclusion



One of the typical approaches to the Azerbaijan's economy in modern times has been attracting foreign capital actively to the non-oil sector and raising the competitiveness of the national economy in the international arena. On the other hand, Azerbaijan should ensure conceptual approaches to the long-term development of the national economy through modelling and improvement of its oil and gas industry development perspectives. In these matters, the role of the oil and gas industry as a key provider of the country's sustainable development is related to the historical development of the national economy. Thus, for over 100-150 years, the oil industry has played the role of the locomotive of the Azerbaijan's economy, and this priority will still probably be characteristic for the future periods. The problems of diversifying the economy and improving its structure in the process of sustainable development of our country should be solved through the fully efficient use of the potential of the oil and gas industry. Azerbaijan should improve its economic development model, taking into account environmental factors in the near future and develop and implement economic development mechanisms that fully incorporate the principles of sustainable development. The problems of serious assessment of the sustainable development principles and criteria adequate with the transformation characteristics of the global economic development processes and global economic challenges, more efforts to address global problems, contributing contribution to global food security, improving living standards, regulating consumption and living standards based on the balanced development of the society, efficient use of human capital and the achievement of sustainable development of the national economy and society as a whole, should be consistently resolved and relevant measures to that end should be taken constantly.

References

- Akberov M. Efficient production of minerals and resources // "Earth and human" magazine, №4, 2015.
<http://az.strategiya.az>.
- Azerbaijan in figures. Baku-2018.- 264 p.
- Babazade V.M. Mineral raw materials of Azerbaijan. Baku, 2005.-808 p.
- Goncharov A.V. Stratigraphy of the region is based on the potential for sustainable development. The dissertation the econ. science St. Petersburg, 2016.- 16p.
- Golovanov E.B. Methodological approach to the value-oriented development of regional economics. -
<https://sovman.ru/article/5104>.
- Lee A.S, Kazakov VV Formation of logical and structural scheme of stable social and economic system // The Bulletin of the Tomsk State University. No. 348, 2011.-P. 100-103.
- Mustafayev N.V. Utility excavate. <http://www.gia.az>.
- Nadirov A.A. and b. The economy of Azerbaijan. Baku, "Science", 2003.-344 p.
- Natural resources of Azerbaijan. <http://kayzen.az>, <http://azerbaijan.az>, <http://azecology.az/az/elage>.
- National strategy for stable economic and social development the Republic of Belarus for the period up to 2020.
- <http://www.minpriroda.gov.by/printv/ru/nsur2020-ru>.
- Official site of the Institute of Geography named by academician Hasan Aliyev.
<http://www.igaz.az>.
- Official site of the Ministry of Ecology and Natural Resources the Republic of Azerbaijan. <http://eco.gov.az>.
- Problems of systematic analysis of steady development / Background. S.A., Pegova Yu.A. Moscow: Book Liberty, 2009.
- Sivogrov O. Strategic approach + persistent development = success. -
http://www.iwoev.org/fileadmin/Dokumente/Projekte/Projekt_EU-BY/Presse/2nd_issue.pdf.
- Salimov S.M. Oil and gas production is a strategy of sustainable development of the Azerbaijan Republic. Monograph. Москва, МАКС-Пресс, 2015. - 292 p.
- The Concept of Continuing Socio-Economic Development of the Russian Federation to 2020.
http://www.intelros.ru/subject/ross_rasput/print:page.1,2026-koncepcija-dolgosrochnogo-socialno.html.
- Vasilyeva A.S. Pentecostal model of a stable socio-economic development // Creative economy. - 2012. - Volume 6 - № 4. - P. 3-9.

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New Approach to State Protection of Competition

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Abstract

The aim of the article is to improve the possibilities for learning and applying practical tips on competition protection, and to develop ways to promote competition and economic growth that will enhance the prosperity of the economy and society. It is important that the goal of competition protection is to create conditions that will lead to a more competitive market structure and business behavior without direct intervention from the competition body. Note that the most disadvantageous alternative to the competition body is the application of close and lasting control of the dominant firms by competition law. This alternative results in more inadequate funding by requiring more resources. Modern economic reality, characterized by the transformation of economic relations, business globalization, integration of transitional economies into the global space, makes the development of competitive relationships more important for improving economic and innovation performance. As a result, it has been established that a successful market economy requires a competitive culture within the country. Both consumers and the business community need to be aware of their competitive policies and how they can benefit from it. Competition agencies play an important role in this learning process.

Keywords: Efficient market economy, Competition policy, Protection of competition, Economic policy, Competitive market

Introduction

As it is known, monopoly and unfair competition are acknowledged in the Constitution of the Republic of Azerbaijan as one of the strategic tasks of the state [Article 15.2.]. Article 15.2 of the Constitution provides for the formation of competition as an essential part of an effective market economy mechanism.

One of the fundamental conditions and factors of efficient market economy is a sound competition policy and environment. This is an indicator of the positive experience of world economic development and is a problem that is becoming increasingly relevant in modern economic thought and economic policy. The transitional economy, the development and protection of competition in emerging and developed countries are carried out in different dimensions and dimensions. Supporting competition in a country with more than one hundred years of concrete experience in this field and helping small entrepreneur's to enter the competitive market are included in the functions of the federal government's economic regulation [Legal regulation of the competition process. New York et al]. In a country with more than one hundred years of experience in the area, such as the United States, promoting federal competition and helping small businesses enter the competitive market is part of the federal government's economic regulatory functions. Nearly 90 countries have adopted specific laws on competition protection and 30 countries are on the verge of accepting those laws [Economic Report of the President Washington, 2000].



The laws of the Republic of Azerbaijan “On anti-monopoly activity”, “On unfair competition”, “On natural monopolies”, “On protection of consumers' rights”, “Advertising” were adopted and thus the formation of the legislative mechanism of competition mechanism was completed. The globalization process, which has become a subject of intensive discussions around the world on competition protection, is being strengthened by a global market economy mechanism. United Nations Conference on Trade and Development (UNCTAD), Organization for Economic Cooperation and Development (OECD); Authoritative international organizations such as the World Trade Organization (WTO) and the World Bank have intensified their activities in this area. A large amount of literature is published on existing legislation, policy and action [Policy directions for global merger review. London, 1999 et al.].

In addition to expanding the geography of countries joining the competition policy, competition policies are also improving. Since traditional anti-monopoly measures and norms are not adequate today, the need for intensification of competition mechanisms is one of the implications of the trends in the global economy.

It should be noted that international conference, symposium and workshops were held in Bankonda, Chaypur (India), Istanbul, Casablanca, Kiev, Moscow, San Jose (Costa Rica) and other cities. Several conferences on Geneva-based United Nations conferences on "Review of all aspects of the integrated control principles and rules complex on multilateral basis for restrictive business practice" were held in Geneva.

In our opinion, all this is not temporary and casual. Although the market economy and economic competition are the basis of economic globalization, the ratio of "participation" and "benefit" of individual countries in this process is not the same. Although globalization is strengthening, but the sharing of economic powers and capacities between the countries, and their convergence is almost non-existent [Remarks by the President at world economic forum. Davos, 2000. China and India's economic development did not change this trend substantially. Most of the elements of the problems mentioned in the article were mentioned in the scientific works and scientific views of several economists. Muradov, A.J., Hajiyevev N.O.(2014), Lal K Almas, Hajiyevev N.O.(2013) considered important to development of competition.

In countries with the best competition protection legislation, consistent oversight of competition in domestic markets, the state is trying to create favorable conditions for their national companies in the system of international relations and becomes their carrier of their interests. From this point of view, the world is shaping in the marketplace freedom of competition and fair competition meet objectively strong obstacles.

The relationship between competition policy and competition law, which expresses the relationship between competition development and competition protection is multifaceted. Without a doubt, something else can be maintained and at the same time, the protected thing can grow. Despite the different concepts, competition, anti-monopoly and other similar laws are directly aimed at protecting competition. Legislation on Japan [Antimonopoly legislation of Japan. Tokyo,1998.] and Azerbaijan and Anti-Monopoly Legislation have been drafted and the relevant legislation of Turkey and Bulgaria [Commission for the Protection of Competition. Sofia 1994, Protection of competition qanunu. Ankara 1998] has been formulated under the so-called "competition protection". Development coopetition problems of the national economy took the place in the scientific works of Muradov. A.J. Hajiyevev N.O. (2013), Muradov A.J., Hasanli Y.H., Hajiyevev N.O. (2019), Muradov, A.J., Hajiyevev N.O.(2014), Hajiyevev N.O.(2012) considered important to place greater emphasis on competition and diversification of economic development. There is no difference between them functionally. In either case, the conversation is about competition protection. As a result of the application of competition law, competition is evolving. Therefore, in a broad sense, competition protection is part of the development of competition.



State agency, which carries out state protection of the competition, has already been formally organized. The purpose of the commodity market research and the establishment of a mechanism for controlling various types of transactions and combinations is to determine the status of competition and the level of economic concentration in the domestic market. A group of professionals that will solve these issues, which form the most complex component of our state's micro-regulatory activities, has already been formed.

The concept of competition is actively absorbed by our entrepreneurs and becomes an integral part of their behavioral norms. Our honest entrepreneurs require rigorous action against unfair competition. The domestic market of Azerbaijan has become a competitive place as a result of privatization of state property and restructuring of various state-owned companies and large companies. Strengthening of the activity of newly established business entities is a factor of development of competition. Radical results have been gained in the separation of government regulation functions that have substantially restricted the division of discrimination directly arising from administrative cases. As a result of transforming the Azerbaijani economy into a competitive sphere of foreign companies and transnational corporations, various competitive segments have emerged in the domestic market.

In addition to this, the spectrum of works to bring the competition into effective development of state protection is quite broad.

State regulation of competition is one of the means of state protection in one or another form. The issue of fair protection is also part of the current strategic development challenges of the 21st century. This is the necessity of the economic development of emerging economic globalization and, consequently, due to the consistent integration of world markets with the diversity of competitiveness and rapid expansion of transnational corporations.

Different countries have varying levels of competitiveness depending on the level of economic development and the size of the domestic market. One of the goals of attracting foreign investment in a country like the United States is the protection and promotion of competition. Because the existing competitive environment in our country is a type of competitive competition, foreign investment in the country cannot be directly targeted at competition. The key issue here is to strengthen competition in the marketplace and to shape the behavior, behavior, and capabilities of our national entrepreneurs. Therefore, all our actions should be carried out within the objective of an imperfect competitive model. In such circumstances, world practice shows that the behavior of market subjects and companies in the market is conditioned by more market structure. Despite the fact that a large majority of transnational companies focusing on the development of around 40,000 world economies are concentrated in developed countries, the effectiveness of small businesses in these countries is higher than in developing countries.

Under current conditions, it is advisable to implement a soft anti-monopoly policy, taking into account the stage of competition in our country. Taking into account that the tendency to reach a dominant position in the domestic market for market conditions is natural and this is an economic growth and progress factor, it is unacceptable to prevent this process as a whole. In accordance with the Decree "On state regulation of prices (tariffs) of products (services) of monopoly enterprises and associations," state regulation of economic entities with dominating position does not apply to new and high category products for 2 years from the date of their production. It is envisaged that the state regulation of the domestic market will be applied only to economic entities that use abusive power.

However, it is important that strict measures be taken to protect the competition while investigating the competition situation in the domestic market, such as tea, water, butter and others. In order to eliminate the violations of the requirements of the anti-monopoly legislation, various economic entities have been instructed to



carry out about 40 operations. Implementing these guidelines often obviates great obstacles. Despite the demonopolization of some of the key sectors of the economy during privatization, anti-monopoly legislation was still widespread. Because of the limited demand for large enterprises in the domestic market, they are weakly involved in the formation of a competitive environment. Therefore, in addition to implementing a broader anti-monopoly policy, it is also necessary to apply harsh measures in this area.

Implementation of entrepreneurship and economy and transition of concessionary measures in the context of transitional economy does not violate the competitive environment itself, but rather contributes to its development. In all developed countries, such measures are undertaken in different ways and at different dimensions. 85 of the subsidies given to the export of agricultural products in the world fall to the European Union. That's why it is very important for us to take such measures. Effective application of incentive measures in current conditions is a problematic issue. In accordance with anti-monopoly legislation of the Republic of Azerbaijan, the use of incentive measures in unfounded and discriminatory circumstances is considered illegal. In any case, direct concessions and concessions to any company mean a gross violation of the legislation of the Republic of Azerbaijan. At the same time, the relevant legislative framework of the sectors of the economy as well as regional problems has been formed, which in itself does not prevent competition conditions. Although it does not have a specific legislative framework regulating the process of helping the start-up of new start-up entrepreneurs needed economically in our country, its implementation contradicts the anti-monopoly legislation. The recent adoption by the Milli Mejlis of the Law on State Assistance to Small Enterprises, despite the serious steps taken in this direction, does not eliminate the existing legal-normative gap.

At present, more than 40 state agencies in our country have the right to control certain areas, conditions and factors of entrepreneurship in some way. In practice, this is an automatic verification of entrepreneurs' activity. Some companies may, in some ways, be outside the control of the inspectors. As a result, unreasonable competition conditions for economic subjects are created. This form of discrimination is widely spread in the CIS and its tendency to strengthen. Therefore, the requirements of the Decree of the President of the Republic of Azerbaijan "On the elimination of artificial obstacles in the area of improvement of the state control system and the development of entrepreneurship" should be applied with full force. At the same time, the borders between the functions of regulatory subdivisions of regulation and control of the subdivision should be expressed in normative documents. The direction of the audit should be transparent to the transparent regulatory framework and the circumstances underlying the inspection should be determined.

In general, the mechanism of development and protection of competition in our country is formed under the influence of a variety of contradictory factors, which will continue in the coming years as well. Therefore, according to the duties and powers of the State Service for Antimonopoly Policy and Consumer Protection under the Ministry of Economy, the nomenclature of activities in this field should be expanded. Above all, the analytical research base of the competition mechanism should be expanded. Certainly, there is no need to be able to deal with issues of monopoly and competition theory today. These issues are sufficiently illuminated in the world economic thought to take action. But in any case, the model and its level, which is shaped in Azerbaijan, must be studied and evaluated on a consistent basis. The development and protection of competition with the anti-monopoly policy inherited in the first period was mainly concentrated on the non-monopolization of the economy for objective reasons. New aspects of the issue that do not lose its relevance will be revealed. Anti-monopoly measures are already part of the competing mechanism. The services provided by state monopoly that do not have a competitive sphere have an impact on the formation of a competitive mechanism and the interests of entrepreneurs. Therefore, the principles and normative base of tariffs for these services should be established. Licensing activity, which is a direct attribute of entrepreneurship, is one of the factors influencing the formation of competition in the market as well as in its field and regional segments. This area has also reached a level of systematization. There is a need to discuss a number of principal issues to clarify the licensing functions and



nomenclature. A wide inventory of other situations that result in "monopolistic behavior" and "competition infringement" in the domestic market should be completed. Although the competitiveness criteria for our economy are generally defined, it needs to be strictly accurate in line with its structural policy. Evaluating the competitiveness of goods and companies that have an impact on the domestic market should be systematized and the factors of national competitiveness should be assessed. Improving the legislative framework of the competition mechanism is also a challenge. One of the foremost issues is the creation of a special legislative framework for the protection of competition in the financial services market. Article 9 of the Law of the Republic of Azerbaijan "On Anti-Monopoly Activities" has identified some illegal acts limiting the competition of differentiated financial-credit organizations. However, it can be found in very limited cases. This does not allow the regulation of the financial services market to be adapted to the competitive environment. Measures to regulate competition monopoly in competitive conditions should also be brought into the system.

At present, a methodological basis is being developed to address the obstacles to entry into the market of new business entities and to expose them to corruption.

The database should be expanded to prevent and control the timely containment of key compounds that may be potentially competitive for the domestic market, and a number of specific research mechanisms should be established.

Conclusion

The application of competition law is both a good base and a means to strengthen sustainable competitive markets resulting in healthy competition, opportunities for new incomes, entrepreneurship, high economic efficiency and consumer welfare. Competition protection can increase these or other benefits of competition. Experience shows that a number of factors lead to the protection of successful competition:

- The Competition Agency should develop relationships with government ministries, regulatory agencies and other agencies that represent, direct and manage policies affecting supply and demand in different markets. Such relationships should be based on mutual respect, acceptance of specialist work and respect for appropriate responsibilities. In this case, the policy mandate of the various organizations will facilitate communication, assist in the search for alternatives that are less harmful to competition and consumer welfare;
- Competition protection usually carries out public speeches and public speeches to promote or defend positions in favor of competition. However, competition protection should not be controversial; public conflict with other agencies is sometimes risky, difficult, and counterproductive. The preferred strategy for making economic decision-making better and more informed is to encourage discussion and provide accurate information;
- Have a specific expert (or should be able to obtain it from outside experts) in areas where the competition agency will intervene. The agency should propose alternative policy measures for competition concerns. Compromises should normally be made so that the state can achieve other socio-economic objectives;
- protection of competition should be carried out in an open, transparent manner so as to protect the inviolability and trust of the competition agency. If confidentiality is required, the Competition Agency should explain the reason for the publication of news;
- protection of competition will be more effective in the case of competition agency isolated from free, political and bureaucratic interference;



- An educated business press is a valuable tool in helping the goals of competition law policies. Competition agencies must establish good media relations and explain the importance and role of competition law as an integral part of the economic structure of the state.

References

- Antimonopoly legislation of Japan. Tokyo, 1998.
- Constitution of the Republic of Azerbaijan
[http://bakubookfair.com/images/pdf/14050630171\)%20Az%C9%99rbycan%20Respublikas%C4%B1n%C4%B1n%20Konstitusiyas%C4%B1.pdf](http://bakubookfair.com/images/pdf/14050630171)%20Az%C9%99rbycan%20Respublikas%C4%B1n%C4%B1n%20Konstitusiyas%C4%B1.pdf)
- Commission for the Protection of Competition. Sofia 1994;
- Protection of competition qanunu. Ankara 1998.
- Economic Report of the President Washington, 2000, p. 126-127\
- Hajiyev N.O., Studying of special practical issues of abuse of dominance. Journal of Economic Sciences: Theory & Practice. 2012, Vol. 69 Issue 2, p55-90
- Lal K Almas, Hajiyev N.O., Azerbaijan's current and potential comparative advantage: an exploratory study. International Conference on Policy Modeling (EcoMod 2013), Prague, Czech Republic, July p.1-3
- Legal regulation of the competition process. New York, 1979, Antimonopoly Law and polices of japan. 1994, Monopoly Policy in the UK. Cheltenham, 1998, The first international competitionsimposium Turkeye, Istanbul, 1999, Competition Law of the Russian Federation, M. 1999, Competitive and antitrust regulation. M.1999. The 2000 handbook of competition regulators, London, 2000.
- Muradov, A.J., Hajiyev N.O., Competitive environment is the main factor for integration into the world economy. Journal of Economic Sciences: Theory & Practice. 2014, Vol. 71 Issue 2, p.5-20
- Muradov, A.J., Hajiyev N.O., Assessment stages of cyclical development of monopoly and competition in terms of the reconstruction of Azerbaijan economy. Journal of Economic Sciences: Theory & Practice. 2013, Vol. 70 Issue 1, p.97-117
- Muradov A.J., Hasanli Y.H., Hajiyev N.O., (2019). The assesment of impact of competitiveness to economic development. Economic and Social Development: Book of Proceedings, 1170-1177 Publisher: Varazdin Development and Entrepreneurship Agency (VADEA)
- Muradov, A.J., Hajiyev N.O., Analytical frameworks and procedures for application of demonopolization. Journal of Economic Sciences: Theory & Practice. 2014, Vol. 71 Issue 1, p.4-25
- Policy directions for global merger review. London. 1999, International competition policy advisory Committee. To the attorney general and assistant attorney general for antitrust. Final report Washington, 2000.].
- Remarks by the President at world economic forum. Davos, 2000, ([http // www. Pub. Whitehouse. Gov/uri-rest/12 R? urn. Pdi // oma. Lop. g.](http://www.Pub.Whitehouse.Gov/uri-rest/12/R?urn.Pdi//oma.Lop.g)) United Nations Conference on Trade and Development. Action plan. Bangkok 2000.



Program Accreditation: a Catalyst Towards Quality Enriched Education System in Oman

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Abstract

Being a fundamental need, right as well as foundation for the successful and prosperous society education requires well defined and quality enriched provisioning and assurance. To assure a self-sustainable and potential future generation and prosperity, ensuring education quality is of paramount significance. To ensure educational quality and its delivery accreditation system has played significant appreciable role globally. Realizing the need of accreditation system, numerous significant measures have been incorporated in the Sultanate of Oman that monitors, controls and ensures quality educational delivery across the country. In this paper, a number of development, programs and practices for educational accreditation at different level of educational hierarchy in the Sultanate of Oman have been studied and discussed. Various programs and accreditation practices introduced by Oman academic accreditation authority (OAAA) have been discussed and their effectiveness has been studied. The implementation of different accreditation programs and standards at secondary and higher education level have been discussed. The implementation of different accreditation policies, standards and associated quality audit procedures for programs as well as institutions along with its significances has been discussed in this manuscript. The presented manuscripts can play vital role in assisting policy makers to map optimal constructive strategy to enhance quality education delivery for higher education in the Sultanate of Oman.

Keywords: Educational quality, Accreditation system, QAAA, Accreditation policies, Quality Audit procedures.

1. Education: a Fundamental Construct Enabling Smiling Today and Tomorrow of the Sultanate Of Oman

Education the fundamental right and need for a recent days human being is provided free of charge up to the end of secondary education in Oman, though attendance is not mandatory at any level. In 1970 there were only three formal schools with 900 students in the whole country. Oman's national educational program expanded rapidly during the 1970s and the 1980s. Exploring the facts, it can be found that there are extensive programmes to combat adult illiteracy and Sultan Qaboos University, the only national university near Muscat, was founded in 1986, and in 2006 it had 13,500 students. The 2006 Human Development Report found the literacy rate to be 31.4% in adults, up from 54.7% in 1990. For the same period, the youth literacy rate increased from 85.6 to 97.3%. Public expenditure on education was reported to be 4.6% of GDP and 26.1% of total government spending. The recent study reveals that the adult literacy rate in 2010 was 86.9%. Before 1970, only three formal schools existed in the entire country, with fewer than 1,000 students. Since Sultan Qaboos' ascension to power in 1970, the government has given high priority to education to develop a domestic work force, which the government considers a vital factor in the country's economic and social progress.



Oman's first university, Sultan Qaboos University, opened in 1986. The University of Nizwa is one of the fastest growing universities in Oman. Other post-secondary institutions in Oman include the Higher College of Technology and its six branches, six colleges of applied sciences (including a teacher's training college), a college of banking and financial studies, institute of Sharia sciences, and several nursing institutes. According to the Webometrics Ranking of World Universities, the top-ranking universities in the country are Sultan Qaboos University (1678th worldwide), the Dhofar University (6011th) and the University of Nizwa (6093rd). Such interesting and introspecting facts demand an inevitable need to explore various quality measures and enhancement practices in the Sultanate of Oman. This manuscript intends to explore various accreditation standards and their significances for education standard in the Sultanate of Oman.

Before discussing accreditation standards and their implementation at higher education (HE), it is of paramount significance to study key facts about education and its significance towards a sustainable and developing society of Oman. The following section discusses education in Oman.

2.1 EDUCATION: A CATALYST TOWARDS PROSPEROUS OMAN

Research on private higher education (HE) is a relatively recent phenomenon in the main stream of HE research. Although there has been a significant increase in research and publication about private higher education in the West (Altbach, 2003; and Levy, 2003) this topic remains peripheral on the higher education research agenda in the Arab world including the Sultanate of Oman. When considering the rapid expansion of private higher education in the Arab world, particularly Lebanon and Jordan, there still remains a dearth of information on this topic, and hence a much needed initiative is called for to address such vital reform in the development of higher education in the Arab world.

The situation of private higher education in Oman and the role it could play in Omani development, together with the challenges it faces, have not received adequate attention as a topic of research. A perusal of previous academic studies reveals no specific research dealing with private higher education in Oman, and the challenges that arose in this sector. This might be due to its being a new phenomenon in the country, since the first private college was established in 1996. There are, however, a few studies that deal with basic education and higher education in Oman (Al-Hammami, 1999), "Education for the 21st Century: General education Reform in the Sultanate of Oman: Motives, Nature and Strategies of Implementation", which examines the nature of this reform and the strategies of the 'General Education' reform in Oman. Researcher analyzed general education in Oman between 1970 and 1998 and concluded that reform is an important endeavor in the educational system in the country, particularly as Oman is moving to a new phase of the long-term strategy, 1996-2020, since educational syllabuses must keep pace with that strategy.

Researcher (Al-Manthri, 2001a) has carried out a study entitled "Education Reform in Oman 1970-2001: The Changing Roles of Teachers and Principals in Secondary Schools", in which he has examined the development of education, including higher education, in Oman. Author also pointed out that in 1971 around 700 students were selected by the Ministry of Education to continue higher education studies outside Oman, as well as a thousand students who had already sent abroad to pursue their university education. Researcher (Al-Manthri, 2001a) concluded that both school teachers and principals should be well prepared and rehabilitated in order to acclimatize to the new education reform. Another study explored higher education and its role in human resource development in Oman. Al-Lamki (1992), "Higher Education and



Underemployment in Oman”, describes the role of the government with regards to human resource development. The study discusses the degree of relevance of post-secondary education level, particularly vocational education, to the local labor market. Al-Lamki also lists some obstacles, which she believes hinder Omanisation programmes, particularly in the private sector. These include:

- The majority of employees in the private sector labor market are non-Omani citizens.
- The training environment in the private sector is comparatively neglected. This situation has led to many nationals lagging behind non-national employees, who have longer work life experience. Lack of a coherent link between vocational institutions and the skills required by the labor market.

To strengthen national human resource efficiency, acceptability and productivity the assurance of educational as well as skill quality is of great significance. With this objective the following section explores varied quality measures for education, especially higher education quality and its significance.

2. Quality of Education

Quality assurance (QA) processes and evaluation mechanisms are becoming increasingly important for higher education institutions (HEIs) searching for national and international recognition and accreditation. A “successfully implemented quality assurance system will provide information to assure the higher education institution and the public of the quality of the higher education institution’s activities (accountability) as well as provide advice and recommendations on how it might improve what it is doing (enhancement)” (ENQA 2015). There is a general understanding that “the definition of educational quality cannot be normatively pre-defined and imposed but has to be developed in negotiation and through stakeholder participation” (Ehlers, 2011) therefore there is no “single approach from one single perspective” (Al-Hassnawi, 2011). A variety of QA models in the form of continuous improvement cycles (ENQA, 2015) has been developed or adopted by HEIs, national and international quality agencies and accreditation institutions to help improve the quality of HEIs’ operations. The ADRI quality cycle developed by the Curtin University represents such a model and incorporates four steps: Approach-Deploy-Review-Improve (ADRI):



Fig. 1 ADRI Quality Cycle



As part of the Review parameter of the ADRI cycle, course/teacher evaluations have an important function with regard to student feedback and teaching/learning improvement. Student feedback in the form of formal questionnaires has become a standard tool used by institutions of higher education through automation software platforms or management systems to collect data for review and quality assurance. While these instruments represent a relevant element in quality assurance at the institutional level and provide comparable long-term data, they also suffer from a lack of qualitative depth, and their results should be regarded as what they are—*indicators* for a number of factors influencing the course/teaching/learning situation. Clearly, negative feedbacks on teaching skills or attitudes need to be addressed at an individual level using supportive measures. As the coordinator and a lecturer in a Master's teacher training program, suggested to students to develop reflective thinking in order to enhance the quality of their learning and consequently the quality of their teaching skills. Further, it is suggested to consider looking beyond critical or negative feedback ostensibly directed at the course or themselves during their future careers as teachers, as it quite often conceals other underlying factors that should be taken into consideration as part of a wider picture. This objective, however, requires individual and institutional commitment to quality enhancement; hence, as a minimum engaged lecturers and an institution open to critical reflection are needed

To put the good-practice implications of the University's perception of the initiative into a comprehensive perspective in the sense of a holistic view it is necessary to consider the institutional setting against its environmental background. In the Sultanate of Oman, there are a number of universities having a transnational institutional partnership in a rapidly developing region where educational advancements are influenced by each country's efforts and challenges to adapt to the needs of their changing societies. Critical voices about the under-achievement of the educational reforms in the Arabian Gulf in the last several years in spite of the vast financial investment and the establishment of satellite universities and valid discussions of societal impact and measures for improvement need to be taken into consideration (G-Mrabet 2010; Kerr 2013; Therin 2011; Total Quality Culture n.d.; Walters, Walters & Barwind 2010).

With the introduction of the Oman Accreditation Council in 2001 and the Quality Plan in 2006 (Caroll, Razvi, Goodliffe & Al-Habsi n.d.), Oman has chosen a unique path and stands out within the group of GCC countries in "making a real effort to improve academic quality" (Therin 2011), anchoring its national commitment to HEI quality in its national higher education framework. Institutions of higher education in Oman undergo institutional accreditation in two stages where the first stage is an institutional quality audit and the second is the institutional standard assessment (OAAA, 2014). Inspired by the ADRI approach this system ensures that the HEI's in Oman feel committed to a reflective approach and the development of an institutional culture of quality, quality teaching and quality learning (Caroll, Razvi & Good-liffe 2008)

3. Educational Accreditation: A Calibrated Move Towards Academic Quality Enrichment

This section discusses various key aspects of accreditation in the Sultanate of Oman.

4.1 An Overview

The process of institutional accreditation in Oman involves a number of complementary processes designed to ensure that institutions may pursue their unique missions and strategies, while also ensuring that minimum standards are achieved.

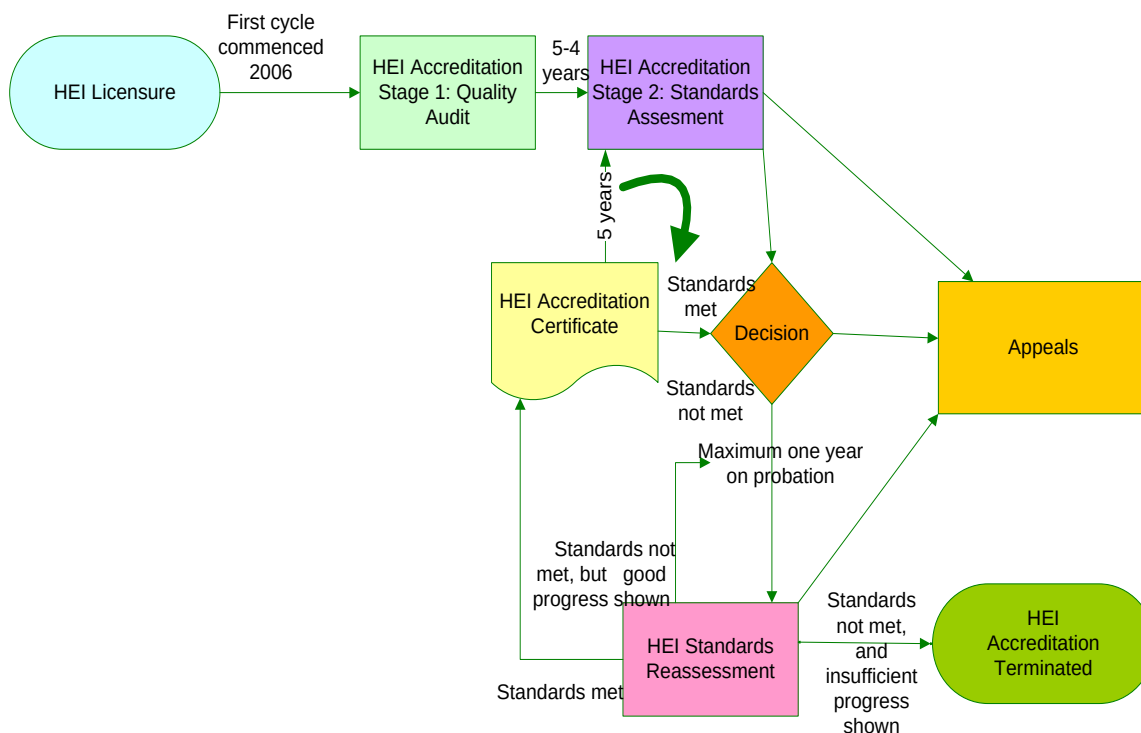


Fig. 2 Institutional accreditation system

4.2 ACCREDITATION AND ITS SIGNIFICANCE

This section focuses on ‘accreditation’ primarily in relation to academic programs. It is therefore important to be clear about what is meant by this term. Like other terms used in the field of quality assurance, ‘accreditation’ has no universally accepted definition (Harvey, 2004). One of the challenges in discussing accreditation is that the terminology used means different things in different countries and different educational contexts (Vepra et al., 2012). For example, in Australia, degree-awarding HEIs are described as ‘self-accrediting’ institutions and their *internal* approval of their own programs is termed accreditation. However, in the UK similar processes are termed program ‘validation’ or ‘approval’ and the term accreditation is not used. In the USA, as in the UK, accreditation is a term used for some form of *external* quality review of academic provision (Eaton, 2012).

Accreditation means to give credit to; and, when used in the context of Higher Education programmes in Oman, it is the formal recognition by the Accreditation Board that a programme meets required standards. It is one of the activities that lift up higher education institutions through the upgrading of programs and performance. Universities usually make their fame through certificates. This will ensure the quality of their products (graduates) provided to the labor market. Theorists hold different concept of accreditation, but they all agree on the elements that clearly define this concept. In other words, accreditation has been defined as: *a corporate scientific oriented event directed to the advancement and upgrading of higher education institutions universities, colleges and programs*. Then accreditation in this sense is together a *supervisory and legal process that gives the educational institution or a program recognition certificate to indicate that an institution does possess specific criteria of quality education*. So accreditation in education is the recognition that a particular educational program or institution has reached a specific



required standard. The Saudi Manual of Standards of Quality Assurance & Accreditation in Higher Education (2009), defined accreditation as “an official certification granted by a recognized body to confirm that the program or educational institution met the required standards”.

Accreditation is the formal declaration by a senior agency official that an information system is approved to operate at an acceptable level of risk, based on the implementation of an approved set of technical, managerial, and procedural security controls (safeguards). But accreditation is seen as both a status and a process. As a status, accreditation provides public notification that an institution or program meets standards of quality set forth by an accrediting agency. As a process, accreditation reflects the fact that in achieving recognition by the accrediting agency, the institution or program is committed to self-study and external review by one's peers in seeking not only to meet standards but to continuously seek ways in which to enhance the quality of education and training provided.

4.3 Accreditation in Oman

The OAAA also bases its use of the term accreditation on the evaluation of higher education provision by an external body (OAAA, 2014). In Oman, approval from the Ministry of Higher Education for a private HEI to run a new program is formally termed “licensing”; the term accreditation is not used in relation to this process. However, the similar process in Saudi Arabia includes ‘provisional accreditation’ by the National Commission for Academic Accreditation & Assessment.

Oman’s higher education landscape is characterized by a diversity of higher education provision. This is shaped by the wide range of overseas HEIs which have academic affiliations with Omani HEIs; in 2012, HEIs from at least ten different countries had academic affiliation agreements with Omani HEIs, many specifically in relation to the provision and quality assurance of academic programs (Trevor-Roper et al, 2013). This diversity inevitably introduces different uses of terminology associated with academic quality assurance into the Omani HE sector, and increases the importance of a nationally shared understanding of terminology. Although higher education provision in Oman principally operates in English, there is some Arabic provision and the discourse of higher education takes place in both languages. Challenges in the translation of key terms associated with academic quality assurance also impact on the potential for a lack of shared understanding of terms.

The OAAA does not use the term accreditation in relation to the approval of an HEI to be established or for the initial approval of a program to run; these processes are referred to as ‘licensing’ and are typically undertaken by the relevant supervising ministry. The term accreditation is also not used to refer to any internal process that is undertaken by an HEI or its affiliate. ‘Accreditation’ is used to refer to formal program or institutional review processes which are undertaken by a bona fide body **external to the HEI**, against defined standards, and which result in a formal decision which recognizes that these standards have been met. This definition concurs with the characteristics of ‘accreditation’ as identified by a number of other higher education accrediting bodies: the verification or approval of a program; by an authorized external organization; and formal recognition that a program meets minimum required standards or benchmark criteria (BAC; CAA; EKKA; MQA; NCAAA). The only bona fide body in Oman which can accredit higher education programs and institutions is the OAAA; in each case, accreditation will mean that the OAAA has judged that the program or institution has met the relevant OAAA standards.



In addition, programs and institutions may seek and be granted accreditation by international accreditation bodies, though caution is required to ensure that any international bodies undertaking accreditation activities in Oman are recognized as being legitimate (see the discussion below on ‘accreditation mills’). The OAAA is recognized as a bona fide accreditation body through its status as a government body and its membership of the International Network of Quality Assurance Agencies in Higher Education (INQAAHE). Table 1 summaries in general terms what the OAAA does and does not mean by the term ‘accreditation’.

Table 1: What the OAAA does and does not mean by the term “accreditation”.

Accreditation	
<i>What it means</i>	<i>what it does not mean</i>
• Judgement by a bona fide national or international body with a formal remit to undertake institutional / program accreditation which determines through a formal process that a defined set of standards has been met. The accreditation body is external to and independent from the institution/program. Accredited status is conferred by this body for a defined period of time.	• Approval by a supervising ministry in Oman for an institution to be established or for a program to run. This is termed licensing. • Approval by a degree-awarding HEI in Oman that a new program can run. (Degree awarding power is conferred through the formal classification of an HEI in accordance with the Oman Institutional Classification Framework). • Approval by an international affiliate that one of its programs can be delivered at an Omani HEI. This may be termed a franchise arrangement. • Approval by an international affiliate that it will be the awarding body for a program run by an Omani HEI. This may be termed a validation arrangement. • Undergoing OAAA Quality Audit. Quality Audit is the first stage of institutional accreditation; this does not result in an accreditation outcome. • That an HEI is implementing a recognised set of standards. For example, national academic standards have been set for GFPs but to date no OAAA assessment of GFPs against these standards has taken place.

4.4 OBJECTIVES OF ACCREDITATION

The predominant objectives of the program accreditation can be stated as follows:

1. Graduates of these programs are expected to be with high efficiency.
2. Evaluation mechanism of students' learning programs is correct and consistent.
3. Continuous improvement of programs.

The improvement and continuous evaluation of educational programs is an important principle that higher education institutions seek to achieve in all operations and outputs which (Deming) pointed as a key to the success of the educational process, through what is known as the cycle of continuous improvement (Fig. 3). The essence of



continuous improvement lies in employee's involvement. This happens when employees improve their process, product or services by applying creative faculties on their work related problems and routine jobs. According to Deming, (Fig. 3) provided a simple yet highly effective technique that serves as a practical tool to carry out continuous improvement in the workplace. This technique is called PDCA Cycle or simply Deming Cycle. PDCA is acronym of Plan, Do, Check and Action. Deming's Cycle provides conceptual as well as practical framework.

In the diagram:

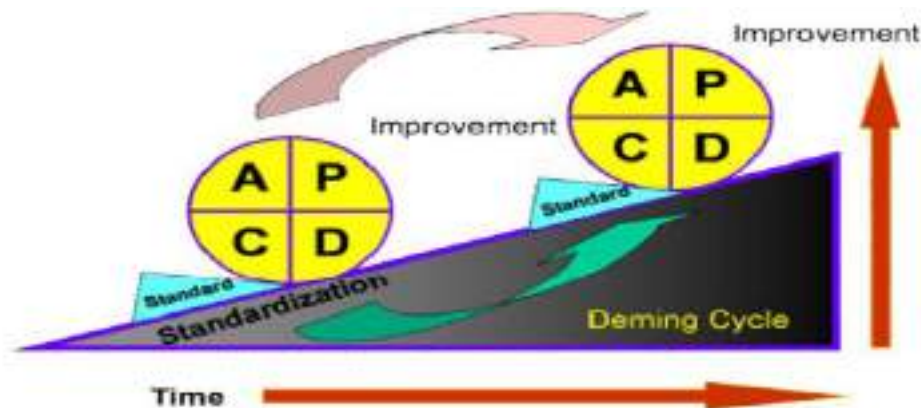


Fig. 3 Evaluation of educational programs

1. Stands for ACT.
2. Stands for PLAN.
3. Stands for CHECK.
4. Stands for DO.

The four steps Plan, Do, Check and Action should be repeated over time to ensure continuous learning and improvements in a function, product or process. This can be explained in the following steps:

1. PLAN stage involves analyzing the current situation, gathering data, and developing ways to make improvements.
2. DO stage involves testing alternatives experimentally in a laboratory establishing a pilot process, or trying it out with small number of customers.
3. CHECK stage requires determining whether the trial or process is working as intended, whether any revisions are needed, or whether it should be scrapped.
4. ACT stage focuses on implementing the process within the organization or with its customers and suppliers.

Once all these stages are completed to the fullest satisfaction, the improvement is standardized. The standardized work or product is the result of improvement initiative but it is not stopped here. With the changing circumstances or new techniques this standardized work, process, product or service is again subjected to further improvement thus repeating the Deming Cycle again and again. Thus, conclusion from previous points that the academic accreditation of all kinds is a legal supervisory process in which the educational institution is given a certificate proving that, this institution has reached a limit standard, regionally or globally recognized in the field of one specific educational



program that it offers to learners. This recognition is a guarantee of the quality of the output of that specific institution, thus giving it an international reputation.

The following section discusses the types of accreditation and their respective significances towards academic excellence achievement and quality enhancement.

4.5 Types of Accreditations

There are two basic types of educational accreditation: “institutional” and “specialized” or “programmatic accreditation.” A brief of these accreditation practices is given as follows:

3.5.1 The institutional accreditation

This is defined as the accreditation of an institution as a whole, according to specific criteria about the adequacy of facilities, resources, including staff organization and provision of academic services and student support, curriculum, levels of student achievement, academic and other components of the educational institution. Institutional accreditation is an evaluation of an entire [institution] and is focused on verifying the administrative policies, procedures and stability. In U.S Institutions must be institutionally accredited by an accrediting agency recognized by the U.S. Secretary of Education for the students of that institution to be eligible for the title programs.

Exploring the Oman accreditation standards, one of the OAAA’s main tasks has been to introduce an external quality assurance system that both recognizes a diverse emerging higher education sector while demonstrating that the provision in this sector meets international standards. The OAAA has developed a distinctive two-stage institutional accreditation system – stage one, Quality Audit followed by stage two, Standards Assessment - which aims to accommodate the needs of a highly diverse and evolving higher education sector while demonstrating that the provision in this sector is in line with international standards. This two-stage system was designed cognizant of the fact that higher education sector in Oman has HEIs which are diverse in terms of size, delivery, language of instruction, international affiliated partners, government supervisory arrangements, quality management systems and in terms of other different factors. Both Quality Audit and Standards Assessment feature the same nine broad areas of scope and over 75 sub-sections. The titles of a few of the sub-sections have been revised since the initial Quality Audit scope was developed and two new sub-sections have been added for Standards Assessment. Table 1 represents the predominant nine areas of scopes.

Table 1 Scope for institutional accreditation in Oman

1. Governance and Management
– <i>Mission, Vision and Values</i>
– <i>Governance</i>
– <i>Management</i>
– <i>Institutional Affiliations for Programs and Quality Assurance</i>
– <i>Strategic Planning</i>
– <i>Operational Planning</i>
– <i>Financial Management</i>
– <i>Risk Management</i>
– <i>Policy Management</i>
– <i>Entity and Activity Review</i>
– <i>Student Grievance Processes</i>



-
- Health & Safety
 - Oversight of Associated Entities (e.g. Owned Companies)

2. Student Learning by Coursework Programs

- Graduate Attributes and Student Learning Outcomes
- Curriculum
- Student Entry Standards
- Teaching Quality
- Academic Integrity
- Student Placements
- Assessment methods, Standards and Moderation
- Academic Security and Invigilation
- Student Retention and Progression
- Graduate Destinations and Employability

3. Student Learning by Research Programs

- Research Program Design
- Research Student Entry Standards
- Supervisors
- Student Research Supervision
- Student Research Support
- Student Research Assessment
- Academic Integrity, Ethics and Biosafety
- Retention, Graduate Destinations and Employability

4. Staff Research and Consultancy

- Research Planning and Management
- Research Performance
- Research Funding Schemes
- Consultancy Activities
- Ethics and Biosafety
- Intellectual Property
- Professional Development for Research
- Research Commercialization; Research
- Teaching Nexus

5. Industry and Community Engagement

- Industry and Community Engagement Planning and Management
- Relationships with Industry and Employers
- Relationships with Professions
- Relationships with other Education Providers
- Relationships with Alumni
- Relationships with the Community at Large

6. Academic Support Services

- Academic Support Services Planning and Management
 - Registry (Enrolment and Student Records)
 - Library
 - Information and Learning Technology Services
-



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- Academic Advising
 - Student Learning Support
 - Teaching Resources

7. Student Support Services

- Students and Student Support Services Planning and Management
- Student Profile
- Student Satisfaction and Climate
- Student Behaviour
- Career & Employment Services
- Student Finances
- Accommodation Catering and Transportation
- Medical and Counseling Facilities
- International Student Services
- Social and Recreational Services and Facilities

8. Staff and Staff Support Services

- Human Resources Planning and Management
- Staff Profile
- Recruitment and Selection
- Induction
- Professional Development; Performance Planning & Review
- Promotion & Other Incentives
- Severance
- Staff Organizational Climate and Retention
- Omanisation

9. General Support Services and Facilities

- General Support Services Planning and Management
 - Public Relations and Marketing
 - Communication Services
 - Facilities Management
-

This institutional accreditation scope is derived from a set of institutional standards developed in Oman in 2004 as part of a suite of documents collectively known as the Requirements for Oman's System of Quality Assurance in Higher Education (ROSQA). The ROSQA accreditation process, however, was never fully implemented. This was because the results from the first two accreditation activities and the feedback received from the sector suggested that the sector needed to develop further and receive training before accreditation to internationally benchmarked standards was a realistic proposition. A sector-wide needs analysis regarding quality assurance was then undertaken and this resulted in delivery of a national quality assurance training program to the sector and development of the two-stage institutional accreditation process.

In developing its approach to institutional accreditation, the OAAA has been aware of the pitfalls of developing a 'one size fits all' approach; one of its fundamental principles is that the responsibility for quality assurance lies with the institution, in line with the INQAAHE Guidelines of Good Practice (INQAAHE, 2007). In the Quality Audit



process it is the responsibility of the HEI to show that its goals, objectives and targets are benchmarked and appropriate for the institution; for Standards Assessments it will be the responsibility of HEIs to submit evidence to show how they meet the institutional standards in their particular context. Although there has been some concern expressed about the diversity of higher education provision resulting in a “hodgepodge of curricula and operating systems” (Al Barwani et al, 2010), the OAAA recognizes that diversity provides opportunity to: address national priorities; support innovation; and support the future needs of Oman.

• ***Institutional Standards and Criteria in Oman***

The OAAA’s approach to developing its standards and criteria for stage 2 of the institutional accreditation process, Standards Assessment, started with the development of an Institutional Standards CDF (OAAA, 2014). This sets out guiding principles for the development of the standards and criteria; the way in which these are assessed; and for the accreditation process itself as follows:

- The responsibility for quality assurance lies with the institution.
- The standards are aligned with the institutional scope used for Quality Audit.
- The standards are based on ROSQA (The Requirements for Oman’s System of Quality Assurance in Higher Education-a suite of documents including institutional accreditation standards and an institutional accreditation process developed in 2004).
- The standards endorse national protocols, guidelines and strategies.
- The standards Assessment process seeks to ensure that HEIs are not overly burdened with the amount and complexity of evidence to be submitted in order to demonstrate that a standard has been met.
- The potential outcomes of the standards assessment process are clear and result from the application of a transparent decision-making process based on a sound rationale and assessment approach
- Standard assessment will be based on the evaluation of both qualitative and quantitative evidence.
- The standard assessment manual will provide advice on how the new standard and criteria will be assessed.
- Institutional accreditation stage 1-Quality Audit is a pre-requisite for stage-2: standards assessment.

An HEI’s responses to formal conclusion made in the quality audit report will be considered as part of the standards assessment process

3.5.2 Specialized or Programmatic Accreditation

Program licensing is a prerequisite to program accreditation by the OAAA. The process of program accreditation in Oman involves assessment of programs against national standards as depicted in the diagram below. The OAAA is currently developing its approach to program accreditation and national generic program standards. This normally applies to programs, departments, or schools that are parts of an institution. Programs such as law, medicine, pharmacy, engineering, and business are examples of programs requiring specialized accreditation. But Program accreditation (specialized accreditation) is defined as the evaluation of the institution program to ensure the quality of these programs, and how they fit with the level of the certificate granted. Accreditation is carried out by accreditation bodies based on specific criteria according to evidences that the institution has met the minimum standards, and consequently certified for a specific time period. Therefore, accreditation is a permission certificate proving quality assurance, which is an indicator of the institution in its relations with students, parents, teachers and the donors, the labor market and community.

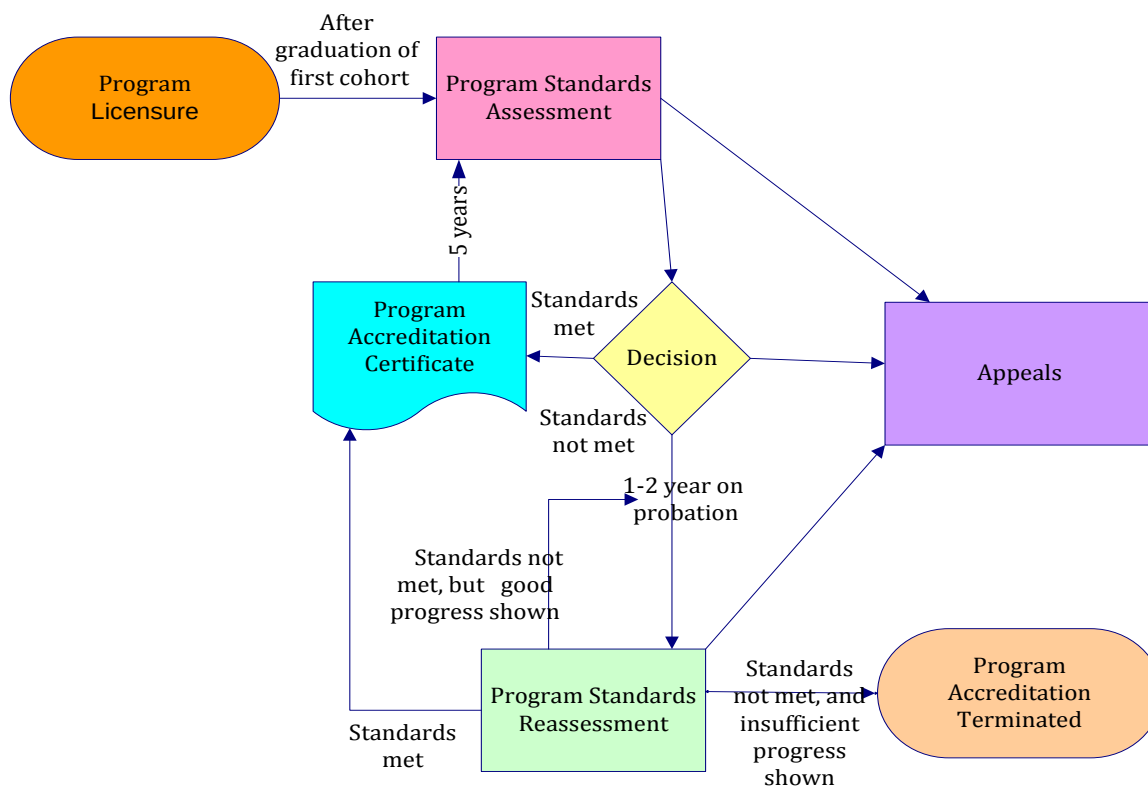


Fig. 4 Program accreditation

• Program Standards and Criteria in Oman

For the purposes of this paper, OAAA undertook a brief survey of all Omani HEIs, asking them to identify if any of their programs were accredited by external accreditation bodies, and if so, by which. This simple survey did not seek to be comprehensive or exhaustive, and the responses may not be representative of the sector as a whole. Nevertheless, the data gathered presents an interesting insight into the current program accreditation landscape, and the findings suggest some of the opportunities and limitations that landscape presents. Please note that, for the remainder of this section of the paper, generalized references to 'HEIs' refer to the sample of HEIs who responded to the survey, and not to all the institutions in Oman's HE sector.

In this paper, an unstructured survey based study has been done, where 20 HEIs representatives were casually interviewed. In the case of Oman's sole public university, the University is engaged with over 10 different external accreditation bodies (as defined by the institution), with plans in place to further extend this engagement. This comprehensive approach reflects the University's strategic intention to secure external accreditation across its 6 Colleges and their associated programs. Additionally, there are 4 HEIs among the respondents where external program accreditation is secured through their relationships with their affiliate partners, and where the partner University validated the program and is the degree-awarding body (it is the affiliate University which has secured external accreditation for its program). Two of the respondent HEIs have successfully sought external program accreditation through overseas national accreditation bodies (for example, India). Finally, one HEI reported that a number of its individual modules/courses had been externally accredited (as opposed to a complete program); and



one HEI reported that accreditation took the form of achievement of ISO (International Organization for Standardization) proprietary, industrial and commercial standards. In addition to existing program accreditation, a small number of HEIs also signaled their intention to seek program accreditation in the future, in doing so identifying potential accreditation bodies. Table 2 lists those external accreditation bodies, as identified by the HEIs, which currently have links with program delivered in Oman; it also includes details of prospective accreditation bodies, as identified by the HEIs.

Table 2 Organizations identified by HEIs as External Program Accreditation Bodies, Grouped by Profession and/or Academic Field.

Profession/Academic Field	Accrediting Body (*)
Accountancy	Institute of Chartered Accountants of Scotland (ICAS) <i>Chartered Institute of Management Accountants (CIMA)</i> <i>Institute of Chartered Accountants in England and Wales (ICAEW)</i> <i>Chartered Institute of Management Accountants (ACCA)</i>
Business and Management	Association of MBAs (AMBA) <i>Association to Advance Collegiate Schools of Business (AACSB)</i> EQUIS/European Foundation for Management Development (EFMD)
Education	<i>National Council for Accreditation of Teacher Education (NCATE)</i> National Association for the Education of Young Children (NAEYC) National Association for Sport and Physical Education (NASPE) American Council for Teachers of Foreign Languages (ACFTL)-SPA International Society for Technology in Education (ISTE)- SPA National Council for Teachers of Mathematics (NCTM)-SPA National Science Teachers Association (NSTA)- SPA
Engineering	Institute of Engineering and Technology (IET) Accreditation Board of Engineering and Technology, Engineering Accreditation Commission (ABET/ AEC)
Information	British Computer Society (BCS)



Technology/Computing

National Accrediting Bodies	Accreditation, Certification, and Quality Assurance Institute (ACQUIN, Germany) National Assessment and Accreditation Council (NAAC, India)
Other Academic Fields	Canadian Society for Chemistry (CSC) The Geological Society, London (GSL) <i>American Academy for Liberal Education (AALE)</i> United Nations World Tourism Organisation (TedQual-UNWTO) <i>Institute of Hospitality</i>
Other	The Institution of Occupational Safety and Health (IOSH) The National Examination Board in Occupational Safety and Health (NEBOSH) International Maritime Organisation and STCW Code (International Convention for Standards, Training Certification and Watchkeeping for Seafarers) Various USA accreditation agencies (unspecified; via MST-USA)

(*) Status as 'accrediting' bodies as defined by the respondent HEIs.

Table 2 illustrates the current (and potential) diversity of the external program accreditation landscape in Oman. Looking across the range of professions and academic disciplines represented, there are some 28 different bodies. These bodies provide important external verification for the Omani HEIs concerned on the appropriateness and quality of the programs they deliver. In doing so, external program accreditation plays an important role in providing independent assurance to students and other stakeholders on the good standing of their program of study and the qualification that program leads to.

The complexity of the program accreditation landscape can be highlighted by examining in more detail some aspects of the program accreditation methodologies employed by the bodies identified in Table 2. As Vebra and Scheuthe (2012) note, while different accreditation systems may use similar criteria and procedures, differences lie in the interpretation of criteria and the implementation of the procedures. There exists significant diversity in the scope and detail of the accreditation exercises undertaken by these bodies, professional areas or academic fields notwithstanding. In some cases, these are expressed as standards and criteria; in others as areas; and in some others still, as 'performance targets'. There is also significant diversity in the range and depth of accreditation scopes, from the highly specified, to the more generalized. Some bodies accredit programs and/or clusters of programs, while others may accredit a school or college within an HEI. Also, some bodies may accredit newly offered programs,



while others require at least one cohort of students to have graduated before the program is eligible for accreditation assessment.

Different accreditation bodies also use different assessment processes. Almost all appear to ask for the HEI to submit a form of self-evaluation, and most employ a site visit. However, again, there is considerable variation in the nature of the scrutiny, and the expectations placed on the HEI; for example, some assessment processes are primarily based on documentation only; and the timescales of the assessment exercises range from relatively brief time periods to up to 5 years. It is also interesting to note that at least one of the accreditation bodies requires the HEI to be of good standing and to hold national accreditation as a pre-requisite for successfully achieving accreditation by that accreditation body. Finally, there is significant variation in the outcomes of those accreditation processes. Many use summative outcomes such as 'accredited', 'deferred' or 'denied', though the accreditation period can range from 1 to 10 years between different accreditation bodies, and depending on the performance of the HEI/program. Some require the HEI to produce action plans and/or undertake their own follow-up visits, while some do not. Some bodies (particularly in accountancy it would seem) do not refer to the outcome as 'accreditation', but to the HEI/program achieving 'partner in learning' status (of different levels or grades). Many of the accreditation bodies make public a list of accredited institutions/programs through the use of an on-line register on their websites. Of the sample studied, none made public the accreditation report, and/or the more detailed outcomes of that exercise.

To illustrate in a little more detail the diversity discussed above, there is benefit in looking at two professional/academic field groupings: Engineering and Accountancy. In a number of respects, the approach to accreditation of these bodies (Table 2) is broadly similar, in that the scope of their processes, while differently organized, covers the same broad areas (for example, program education objectives; curriculum content; staffing; resources; facilities). In relation to accreditation outcomes, IET accredits for 1, 3 or 5 years, while ABET accredits for 2 or 6 years (Table 2). Both, however, can formally identify program deficiencies in their processes and require some form of follow-up activity. Therefore, in a number of respects, there are strong commonalities between the two approaches.

In the case of Accountancy, neither CIMA, ICAEW nor ACCA use 'standards' per se; CIMA refer to five areas or 'steps to success' (also termed 'indicative performance requirements'), information on which is published on the CIMA website. ACCA employ 'performance targets' (also described as 'global best practice benchmarks'), but these are not publically available on the ACCA website. While ICAEW does not include a site visit as part of its accreditation process, CIMA does (though the length and rigour of this is unspecified). In the case of ACCA, their website did not include easily accessible information about the assessment process. In all three instances, accreditation leads to 'Partner in Learning' status and, in the case of CIMA, accreditation can be renewed annually for a relatively modest fee.

4.6 Regional Accreditation Boards in Oman

The Oman Academic Accreditation Authority (OAAA) is charged with assisting in the development of the Oman higher education sector through institutional and program accreditation processes. Also, in collaboration with the Ministry of Higher Education, it has responsibilities for assuring academic standards, and providing training and networking opportunities.

Why do we need to speed up the application of quality assurance & accreditation?



1. To establish integration and harmony within university community at different levels (university administration, faculty, students, parents).
2. To clear ambiguity of objectives among workers in universities and institutions of higher education in general.
3. To help stop poor educational performance in the early stages, due to poor educational content.
4. To identify strengths and weaknesses in the areas of university performance in all elements so as to improve outputs to ensure obtaining a certificate of quality and accreditation.
5. To get feedback and assessment of services provided to recipients to allow these institutions modify strategies of improvement and development.
6. To reach customer satisfaction.
7. To establish a level of cooperation and coordination between universities and the local communities.
8. To allow more space for decision-makers and to raise funding for projects.

Principles underpin the process of the application of quality assurance and accreditation

1. Focusing on the basic needs of recipients (student, community, labor market)
2. Leadership (by unifying visions, goals and strategies in the educational community).
3. Involvement of individuals (by promoting active participation, and attaining equality of all without discrimination as well as allowing opportunity; as this will motivate them to use their full potential to benefit educational institutions and society).
4. Focusing on processes (by paying attention to operations, methods, product and output)
5. Create mutual interest and satisfaction among recipients

Elements for success of quality assurance & accreditation in Arab Universities

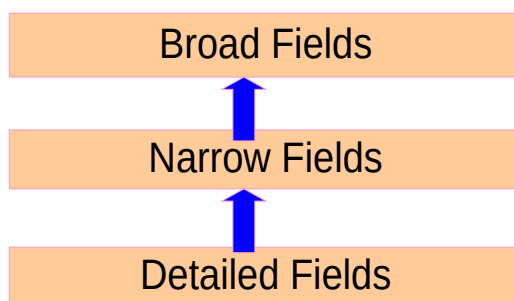
1. Promoting culture of quality and academic accreditation among workers in the enterprise: This can be achieved through the development of community awareness of the value of quality; and through the striving to raise the desire of individuals to achieve the highest levels of performance.
2. Dissemination of other supporting cultures among all personnel in the institution such cultures as: knowledge of networking, culture of reward and punishment, culture of honesty with one's self, productive work & achievement culture, culture of merit and aptitude.
3. Adoption of standard of competence, experience and devotion should be the only criteria in the selection of leaders working to ensure quality performance.
4. Developing training plans to educate workers within the institution on assessment and self-assessment and a degree of seriousness to do so.
5. The involvement of deans, heads of departments and centers in the selection processes of all operations.
6. Investigating employees' attitudes towards the application of quality by:
 - Surveying workers' attitudes toward the application of quality.
 - Studying the situation of workers in the university and the possibility of application.
 - Studying the regulations and the basic rules governing the work of the university.
 - Realizing material and human resources.

4.7 Developing Standards-Based Accreditation in Oman

Oman is a developing country of 3 million people with a dynamic and rapidly growing higher education sector. It has a legacy of nationally developed and imported programs of higher education. One of the consequences of this is that there are numerous quality assurance systems being utilized. In response, Oman is developing a set of national



academic standards for the approval of higher education programs. These academic standards will be developed based on a comprehensive standard classifications system of education (such as the Australian Classification of Education system ASCED 2001, (Fig. 5)).



(Benchmarked from ASCED 2001)

Fig. 5 Developing standards

Broad Fields of Study are distinguished from each other on the basis of theoretical content and the broad purpose for which the study is undertaken. Each Broad Field consists of a number of Narrow. Each is distinguished from other Narrow Fields in the same Broad Field on the basis of the objects of interest and the purpose for which the study is undertaken. Detailed Fields are subdivisions of the Narrow Fields. Each is distinguished from other Detailed Fields in the same Narrow Field on the basis of methods and techniques, tools and equipment, and a stricter application of the criteria used for Broad and Narrow Fields.

International working groups are being established to develop sets of academic standards defined at the Narrow Field of Study level. The national academic standards will have four components: Generic Graduate Attributes; Broad Field Learning Outcomes; Narrow Field Learning Outcomes; and Program-specific Resource Requirements. The first three concentrate on outcomes, the fourth recognizes the importance of considering inputs.

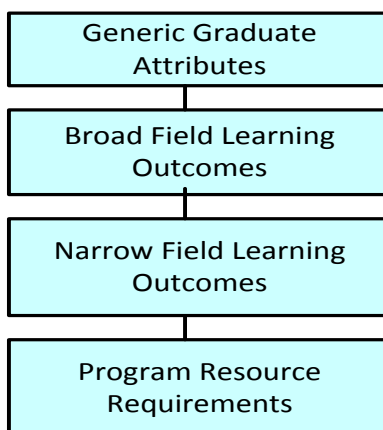


Fig. 6 Components of national academic standards



Generic Graduate Attributes are the attributes, skills and knowledge that any graduate of an Omani degree is expected to have developed or acquired during their course of study. Some will be international in flavor, such as problem solving skills and critical thinking capabilities. Others may be Omani-specific, such as developing an understanding and appreciation of Omani heritage, religion and customs. In this way, academic standards play a vital role in nation-building. There may be up to ten Generic Graduate Attributes. Learning Outcomes are the core academic attributes, skills and knowledge that a graduate of a particular program is expected to have developed or acquired during their course of study. Some will be at the Broad Field of Study level (e.g. all Engineering graduates ought to have achieved certain learning outcomes) while others will be at the more specific Narrow Field level (e.g. all Civil Engineering graduates ought to have achieved specific learning outcomes). Some will be internationally benchmarked and internationally applicable/ transferable; others will relate to Oman's specific context. There may be any number of Student Learning Outcomes. Many programs will have certain minimum resourcing requirements, such as relating to laboratory facilities, IT resources etc. There may be any number of Program Resource Requirements. They are set in the context of a particular Narrow Field of study, but may translate into other sets of standards where they relate to a shared course (e.g. a common first year course).

4.8 Accreditation Implementation Mechanism in College and Universities

The College suggests the organizational structure (Fig. 7) to supervise the accreditation implementation plan in the college. In light of the components of the organizational structure, the College proposes the provision of a vacancy for an Executive Supervisor of Accreditation at the College level. This office is expected to carry out the following responsibilities:

- *Supervise institutional accreditation at the College.*
- *Liaise with accreditation agencies.*
- *Follow up the updates of the standard criteria with accreditation agencies.*
- *Coordinate with the accreditation officers in the departments and the accreditation agency.*
- *Follow up with the accreditation officers in the departments the implementation of the plan within the timeframe.*
- *Provide procedural, technical, financial, and logistical resources needed for the accreditation process.*
- *Submit periodical reports to the Assistant Dean for Undergraduate Studies and the Dean.*

Moreover, the college suggests having:

- *An Executive Supervisor, who can be selected from among the faculty of the College. In this case their teaching load would be reduced, and*
- *International experts who will be hired specifically to assist implement the accreditation roadmap.*

In addition, the College plans to provide this position with an officer and a coordinator. The College proposes that an accreditation officer be chosen in each department, in which case the teaching load of whoever is selected for this is also going to be reduced.

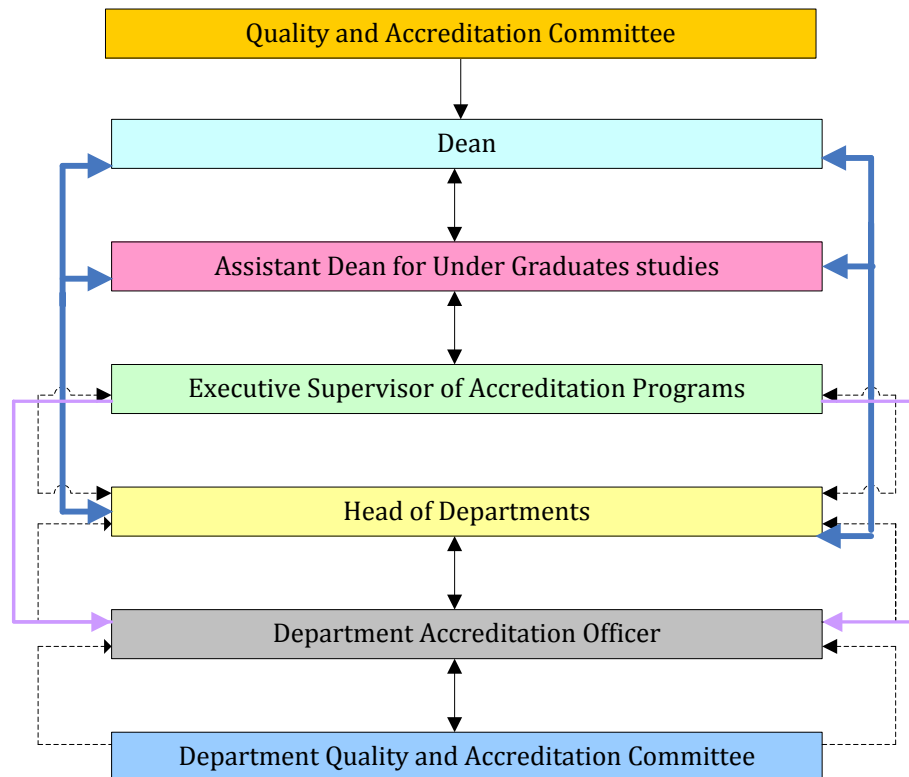


Fig. 7 Proposed Organizational Structures for the Accreditation Team in the College

4.9 Significance of Accreditation for Universities

The importance of frequent accreditation stems from its application on many categories such as:

1. **Society:** that the institution of higher education is doing its best efforts to afford to attain a required level of society needs.
2. **Students:** that the institution they belong to is providing them education, knowledge and experience they need.
3. The graduate of higher education is accepted to be qualified and has the capacities that fit the nature of the job.
4. **Labor market establishments:** They are expected to support the higher education institutions by recognizing certificates and by taking the right decision.
5. **Competition:** to raise the spirit of competition by paying attention to quality higher education institutions.

The previous points show the importance of accreditation for universities, but the integration of these different aspects to lead to the development of higher education institutions, is completed only by ensuring the quality of output that leads to the development of human resources at local and international levels.

The above analysis does not seek to detract from the good standing of these accreditation bodies, or that they are internationally respected for their role in maintaining sound education standards and high quality in their professional areas. Rather, this analysis seeks to demonstrate that, across Oman's HE sector, external program accreditation activity is, overall, a complex, diverse and complicated set of frameworks, expectations, processes and outcomes.



This makes it challenging to compare ‘like with like’ within professional disciplines and/or academic fields, and problematic to make comparisons across disciplines and fields. The survey also indicated that there are some HEIs where currently there is no external program accreditation. These HEIs reflect the diversity of the sector – covering both public and private institutions, and universities, university colleges, colleges and other institutes. The OAAA survey did not seek to ascertain from these HEIs why they have not sought program accreditation, but here are a number of possible scenarios: the HEIs have yet to identify the benefits of external program accreditation; that, to date, they do not consider their programs to be sufficiently established to undergo accreditation; or that they have not been able to identify an appropriate accreditation body to work with. In these cases, a system of national program accreditation can play an important role in meeting the needs of these institutions.

5. Conclusion

This manuscript provides a glance at much needed and significant information on the development and operation of private higher education in the Sultanate of Oman and various accreditation programs and practices. This research can assist higher education policy makers in their decision making process and in mapping a constructive strategy for higher education in the Sultanate of Oman. The study of the various policies, practices and standards for programme as well as institutions accreditation has revealed that the implementation of OAAA has enabled dual stage accreditation strategy that performs quality audit first which is then followed by standard assessment. Such ADRI equivalent practices ensure that institutions ensure quality education delivery, optimal teaching and quality learning. Observing global competitiveness, the implementation of software enabled student feedback collection model and automatic decision intelligent support system can make this process more effective for quality audit and policy formation. During quality audit process, defining and assessing mission and vision of the programmes and institutions, and the extent of its achievement as one of the key constructs for accreditation can be the potential measure to ensure short as well as long term gain for resource quality enrichment. Further, the inclusion of industry oriented initiatives at both the secondary education level as well as higher education level can motivate human resources to meet demands for long run. Incorporating accreditation or licensing institutions to incorporate vocational training as well as industrial programs can be an effective measure to enable resources compete global demands and considerations. Non-hesitatingly, review of international standards and their inclusion with existing accreditation policy can enable globally acceptable resources. A well-defined measure to implement accreditation policies at institution level can also be a vital step to ensure quality of education.

References

- Al Barwani, T., Ameen, H., & Chapman, D., (2010). Cross-border Collaboration for Quality Assurance in Oman: Contested Terrain. In R. Sakamoto and D. Chapman. (Eds). *Cross-border partnerships in Higher Education: Strategies and Issues*. NY: Routledge Education.
- Al-Hammami, H. (1999). Education for the 21st Century: General education Reform in the Sultanate of Oman: Motives, Nature and Strategies of Implementation. Ph.D. thesis, University of Birmingham, UK.
- Al-Hassnawi, Ali R. (2011), *Approaches of Assessing Quality in Higher Education Institutions*. INQAAHE Conference, Madrid [Online <http://www.inqaah.org/main/publications/papers>. 7th July]
- Al-Lamky, A. (1992). Higher education and underemployment in Oman: Perceptions of university graduates in the context of dependent development, 1970-1990. (Doctoral dissertation), The George Washington University, District of Columbia, United States,. Retrieved from http://uq.summon.serialssolutions.com/link/0/eLvHCXMwY2BQMDFNktOTTE3TAO2xpONEy0NLVNS TcwsDExSLQySk8xQxjqQSnM3UQZZN9cQZw9dWKkYn5KTEw--EMPSwMTQIyBNxG07juvBLw_LAUAXLobYQ



- Al-Manthri, Y. (2001a). Education Reform in Oman 1970-2001: The Changing Roles of Teachers and Principals in Secondary Schools. Ph.D. thesis, University of Edinburgh, UK.
- Altbach, P. G. & Levy, D. C. (2003) "Private Higher Education: A Global Revolution" Sense Publishers, Boston College Centre for International Higher Education, and PROPHE.
- Caroll, Martin; Razvi, Salim; Goodliffe, Tess & Al-Habsi, Fakhariya (no date), *Progress in Developing a National Quality Management System for Higher Education in Oman* [Online www.oaaa.gov.om/Journal/QHEv6clean.pdf. 20th November 2014].
- Eaton, J.S., (2012) An overview of US Accreditation – CHEA <http://files.eric.ed.gov/fulltext/ED544355.pdf>
- Ehlers, Ulf-Daniel (2011), *Discovering the Unknown Territory—How to Move from Control to Culture in Higher Education Quality*. Baden-Wurtemberg Corporative State University, Germany [Online www.qualityresources.pbworks.com. 17th June 2015].
- ENQA (2015), Standards and Guidelines for Quality Assurance in the European Higher Education Area. Revised edition [Online <http://www.enqa.eu/index.php/home/esg/>. 3rd July 2015]
- Framework, draft 2 (February 2014), http://www.oaaa.gov.om/Program.aspx#Pgm_Standards_New
- G-Mrabet, Juliana (2010), Western Education in the Arabian Gulf: The Costs and Benefits of Reform. In: Calabrese, John (Ed.), *Viewpoints Special Edition. Higher Education and the Middle East: Serving the Knowledge-based Economy*. The Middle East Institute Washington, DC, 47-52 [Online <http://www.mei.edu/sites/default/files/publications/Education%20VP.pdf>. 24th May 2015].
- Harvey, L., 2004–13, *Analytic Quality Glossary*, Quality Research International, <http://www.qualityresearchinternational.co/glossmary/>; (accessed 2/3/2104); Copyright Lee Harvey 2004-13.
- INQAAHE (2007) *Guidelines for Good Practice* <http://www.inqahe.org/main/capacity-building-39/guidelines-of-good-practice-51>
- Kerr, Simeon (2013), Western Universities' reputations at stake in Gulf links. FT Report—Education in the Arab World. In *The Financial Times*. 4, 21st October [Online <http://www.ft.com/cms/s/0/7e8f1d8a-170d-11e3-9ec2-00144feabdc0.html#ixzz3euInuvp1>. 4th July 2015].
- Levy, D. C. (2005). Legitimacy and private higher education in Eastern Europe. International Higher Education. No. 38. The Boston College Centre for International Higher Education.
- Oman Academic Accreditation Authority (OAAA) (2014) *OAAA Institutional Standards Conceptual Design Frameworkv3* <http://www.oaaa.gov.om/InstitutePdf/Institutional%20Conceptual%20Design%20Framework%20v3%20for%20circ.pdf>
- Oman Academic Accreditation Authority (OAAA), Program Standards Conceptual Design
- Omani HEIs: Learning from OAAA Quality Audits'. Paper presented at the 2013 Biennial International Network of Quality Assurance Agencies in Higher Education (INQAAHE) Conference, Taipei, Taiwan, 8 - 11 April 2013.
- Tallinn University, Estonia, 22-24 November 2012.
- Therin, Francois (2011), GULF: When will its higher education models implode? *University World News*. Issue No. 180, 17th July [Online <http://www.universityworldnews.com/article.php?story=20110715164537795>. 24th May 2015].
- Total Quality Culture (TQC) in educational institutions: a Gulf Corporation Council (GCC) region study (no date), *The Free Library* 2014 [Online [http://www.thefreelibrary.com/Total+Quality+Culture+\(TQC\)+in+educational+institutions%3a+a+Gulf...-a0289620446](http://www.thefreelibrary.com/Total+Quality+Culture+(TQC)+in+educational+institutions%3a+a+Gulf...-a0289620446). 3rd July 2015].
- Trevor-Roper, S., Razvi, S. and Goodliffe, T. (2013) 'Academic Affiliations between foreign and



- Vebra, A.V. and Scheuthle, H., (2012), 'International accreditation – Effects of national and cultural differences', in A selection of papers from the 7th European Quality Assurance Forum,
- Walters, Tim; Walters, Lynne & Barwind, Jack (2010), Kān Yāmā Kān: Curriculum Development in the GCC— Adopting (Adapting) Models of Higher Education. In: Calabrese, John (Ed.), *Viewpoints Special Edition. Higher Education and the Middle East: Building Institutional Partnerships*. The Middle East Institute Washington, DC, 12-15 [Online http://www.mei.edu/sites/default/files/publications/EducationVPVol.III_.pdf. 24th May 2015].



Learning Tasks as Important Didactic Category for the Development of Key Competencies

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Abstract

Significant attention in the field of education is devoted to the didactic category of the learning task, which represents a wide range of all learning assignments, from the simplest tasks requiring merely memorable reproduction of knowledge to complex tasks requiring creative thinking. However, learning tasks cannot be presented spontaneously, randomly, in isolation, as this is a vital means of managing a pupil's learning. The teacher should always come to the classroom with pre-thought-out tasks and the means to solve them. In this way, the pupil's learning will not go elsewhere, or the time in teaching will be filled with activities, but purposelessly. Each teacher should be able to present pupils with a tailor-made set of learning tasks. For these reasons, learning tasks have also been at the heart of the project Community Support for Practice as a tool for developing key competencies (supported by the Ministry of Education, Youth and Sport of the Czech Republic). It included intensive communication between the involved primary and secondary school teachers, follow-up master teachers, field and general didactics and other professionals from the faculties preparing students for the teaching profession (especially a special pedagogue, psychologist, general pedagogy, pedagogy diagnostics, action research). The aim of the paper is to reflect the selected project results in the field of mathematic literacy, especially financial literacy, based on the knowledge and experience from above mentioned experts.

Keywords: Learning tasks, Key competencies, Mathematics, Teachers

Introduction

There has been considerable attention paid to the didactic category of a learning task in the Czech (Czechoslovak) environment since the 1970s. Tollingerová defines a learning task as "a language formation(unit) or a speech that explicitly, verbally, or in its context, non-verbally, becomes the carrier of the signal - *now I have to do something* as opposed to a simple message that carries a signal - *now I will learn something*" (Tollingerová, 1976/77, pp. 156-160).

According to the findings of Holoušová (1984, 1986) who dealt with the issue in many of her publications, a learning task represents wide range of all learning assignments, from the simplest tasks requiring commemorative reproduction of knowledge to complex tasks requiring creative thinking. She further states that learning tasks should be included throughout the whole teaching unit. The same author considers it to be very important that, in addition to their educational function, the learning tasks fulfil also the function of development.

We nowadays define the learning task in accordance with Mares who states: "The learning task is a well thought-out job for a pupil or a group of pupils which is assigned to ensure that pupils achieve the given learning objective. The task is to develop pupils' knowledge and skills; both the procedure and the result are important in its solution." (Mareš, 2013, p. 365).

The learning task is focused on five learning parameters (Mareš, 2013, pp. 366 – 373):



- Content parameter: the form of the learning task is based on the specifics of the subject and the specific topic, taking into account possible cross-curricular relationships.
- Stimulatory/motivational parameter: the assignment of the task (both its form and the language used) can influence the pupils' attitudes to the task, thus the interest of the pupils in the task.
- Operating parameter: based on the assignment of the learning task, there are determined the activities that the pupil is supposed to use to complete the task and to reach the desired result.
- Formative parameter: learning tasks shape pupils' knowledge and skills, contribute to the formation of the pupil's personality (can develop his/her dispositions, talents and qualities).
- Regulatory parameter: the assignment of the learning task directs the pupil's activity and has an effect the progress of the task solution.

Learning tasks cannot be presented spontaneously, randomly, in isolation, as this is **a vital means of managing a pupil's learning** - the pupil learns by solving / performing the submitted learning tasks. It is always necessary to come to the classroom with pre-thought-out tasks and the means to solve them. In this way, the pupil's learning will not go elsewhere and the time in teaching will be filled with activities, not purposelessly. Even though the experts admit the existence and, to a large extent, the function of learning tasks formulated spontaneously, they also warn against the tasks created inadvertently and without a clear link to a given learning objective. It is therefore necessary to emphasize constantly the key prerequisite for the development of learning tasks that is a well-defined teaching goal and, through the solution of the task, the pupils fulfil it together with the teacher. Each teacher should be able to present a set of learning tasks appropriate for a given group of pupils. Each teacher should be able to present a set of learning tasks suitable for a given group of pupils. As with other didactic categories, we expect that the teacher will cyclically reflect the presented learning tasks and will appropriately modify, supplement and innovate them. Another important remark is that, with some exceptions, these are not individual learning tasks, but sets of tasks that are internally structured and gradually increase the complexity of operations that a pupil is supposed to handle when working with the subject matter.

Sequence of the learning tasks is well fulfilled even nowadays by the very frequent - and for the teachers very demanding - requirements on individualization in teaching pupils with different dispositions. Both scientific literature and practical experience suggest more possibilities here, e.g.:

- if necessary, the teacher creates different learning tasks according to the individual possibilities of each pupil; the pupil then solves the tasks independently; (the difference can be both quantity = number of tasks and quality = difficulty of learning tasks);
- pupils solve the learning task(s) in groups, then it is possible for the groups to receive different assignments for their group work based on the composition of the group, or groups receive the same assignments for their group work and roles are then split within the group based on individual's abilities of the pupils;
- cooperative teaching - learning tasks are created in such a way that without the cooperation of all members of the group, the task cannot be fulfilled;
- pupils choose their own learning tasks at their own discretion - in this context we are talking about the so-called pupil's aspiration level, thus the level at which the pupils dare based on their performance and experiences, what expectations they have from themselves and what goals they set.

It is therefore clear that the importance of correctly created and motivating learning task for pupil learning is essential.

Method

The educational field of Mathematics and its application focuses on the activities based in work with mathematical objects and application of mathematics in the real situations. In the framework of this field, the pupil acquires knowledge and skills that will be used in the practical life and mathematical literacy (FEP PS,



2017¹). The Literacy in Education Manual (2011, p. 22) defines mathematical literacy as *"the ability to recognize and understand mathematical problems, to deal with them and to use mathematics in private life, at work and in the company of friends and relatives as a constructive, interested and thoughtful citizen"*.

In the context of the development of mathematical literacy, the learning tasks called as non-standard, have special significance for us that the pupil cannot solve by the usual algorithm. We therefore focused on the tasks in the framework of the project Community Support for Practice, as a tool for developing the key competencies (CZ.02.3.68 / 0.0 / 0.0 / 16_011 / 0000660), specifically the activities carried out in the framework of Specific objective 2: Improving the quality of education and results of pupils in the key competences within the area of mathematical literacy.

The aim of the project was to deepen mathematical literacy in the primary and lower secondary schools with connection to pre-primary education and with recommendations for education at the upper secondary schools. Another aim of the project was to create a functional community network for practice, consisting of teachers of mathematics across the full spectrum of professional development: students of education with focus on mathematics, novice teachers, and teachers - experts and experts in the field of the future teacher preparation: teachers, didactics, special educators and psychologists. In general, the activities carried out in the frame of the project – wherein the focus of this paper is taken into consideration - can be specified as following:

- create a set of validated materials for modifying the used teaching materials (elaborated teaching lessons, task sets, sets of good practice examples, classroom observation, sharing of experience);
- to closely connect school environment with academia; identify mutual needs and expectations, evaluate the effectiveness of the implemented activities;
- to create a space for expert discussion about the achieved results and subsequently formulate recommendations for the modification of teaching materials and educational programs at primary and secondary schools;
- formulate recommendations for innovation of pregradual preparation for future teachers.

In the area of mathematical literacy, several intersecting steps were taken:

- analysis of school educational programs with relation to mathematical literacy,
- selection of appropriate activities for the development of mathematical literacy,
- defining topics for meetings within the established community;
- meetings of academics and mathematics teachers, so-called round tables,
- realization of video-observation in mathematics lessons and their subsequent detailed analysis and reflection,
- sharing good practice examples;
- formulation of recommendations for the use of specific activation methods and the design of innovative learning strategies;
- compiling ideas of verified educational activities with alterations.

The selection of learning tasks that develop mathematical literacy and that teachers would implement in their teaching practice, were crucial for the implementation of the realised part of the project. The aim was to create new types of tasks and to find suitable tasks in the available literature, on the internet and to share them among colleagues, and to work with the given tasks - their adaptation for a given group of pupils, teachers, innovation of the set of tasks for re-implementation. Not only does this create a proven set of tasks including alterations for their use but the teachers are basically carrying out cyclical action research which is increasingly perceived as an essential part of their pedagogical development. Action research is included as a compulsory discipline in the

¹ Framework Educational Program for Primary Schools.



module of teacher competence in study programs for future teachers; however, teachers who are already active in the teaching practice do not have many opportunities to learn about it (Kropáč, Chudý, 2019).

After a thorough analysis, there were chosen two publications: Methods for the development of mathematical literacy in the primary and lower secondary schools (2011) was chosen to be the main literature combined with the publication Tasks for skills development (Starý et al., 2014). The first publication contained detailed methodological instructions on how to work with tasks and the second publication was based in its tasks on the international research PISA 2012, which deals with the development of (not only) mathematical literacy.

Findings

Here we present two learning tasks, comments included, which can serve as a demonstration of activity in the described project, or, as a possible inspiration for the following work. These are tasks that teachers have chosen themselves, and which were also rated positively by the pupils. For the purposes of this text, it also serves as a starting point (without the demand for completeness, dozens types of tasks have been implemented in the project) for formulating conclusions and recommendations.

The first learning task is called “Create Number 24” (Krejčová, Volfová, 2011). Authors state that it can be used for developing of combinational thinking and to practice subtraction of three-digit (or four-digit) numbers. It develops the ability to communicate in the group and work creatively with numbers. It targets on written subtraction, numbers, combinations and fractions.

Activity requires a set of cards marked with four numbers and evaluation points according to the difficulty of the solution. It is a competitive game in which performance-balanced groups receive a set of cards and compete with each other. There are four numbers on each of them, from which it is necessary to get the number 24 using any number of numerical operation, and, the order of numbers can be changed at the same time. Points on the cards indicate the difficulty of each task. Pupils should agree on a solution tactics in the group - whether the weaker pupils will try the simpler tasks or whether they will all work together etc. After a set time, the group will present a solution and evaluate the appropriate score.

On the cards for 1 point may be for example numbers 1, 1, 4, 7, (for the field of integers) or fractions $\frac{3}{8}$, 2, 4, 8. For two points 4, 5, 8, 9 (in the field of integers) and $\frac{5}{8}$, 3, 3, 6 (rational numbers).

The most difficult may be (cards for 3 points) for example 1, 2, 2, 8 (in the field of integers) and $\frac{7}{8}$, 5, 7, 9 (in the field of rational numbers).

After performing the task in teaching of mathematics, the teachers evaluated that the activity seemed to be suitable for the development of logical thinking in particular. However, what the creator of the task states as its priority (thus communication within the group), is assessed by teachers as a pitfall due to the assignment of the task. There were proven difficulties with dividing the pupils in the class into roughly equally numerous and performance balanced groups. The reason is probably that the pupils are not accustomed to this form of teaching which could be eliminated by regular assigning of similar tasks.

The second teaching task is called Food and its composition. It was created by the cooperation of: a student at the Faculty of Education, Palacký University in Olomouc, a subject didactic at the Department of Mathematics of the same faculty and a teacher of mathematics at the lower secondary school. The main goal of the task is to build a healthy and balanced weekly diet from “available” ingredients. By available are meant raw materials and foodstuffs which are easy to buy and their composition can be found out. Only basic ingredients such as



carbohydrates, fats, proteins, or energy can be used for the beginning or lower grades. Additional ingredients such as salt, sugars, saturated / unsaturated fatty acids, eventually vitamins, minerals, fiber, and water can be added to make the task more difficult.

Pupils will find information on the composition of the foodstuffs they choose on the Internet and create a large table into which they will gradually enter this information. Because these foodstuffs can vary, we recommend that they divide different foodstuffs among themselves (e.g. meat products, vegetables, fruits, pastries, dairy products etc.) and complete one shared table (either individually or in groups). For simplicity we can demonstrate a table including some of the values:

Table 1. Table of selected foods composition

Foodstuff (100 g)	Sodium content per 100 g of foodstuff (mg / 100 g)	Potassium content per 100 g of foodstuff (mg / 100 g)	Calcium content per 100 g of food (mg / 100 g)
Sausages	827		42
Pork	45	400	
Beef		334	8
Cottage cheese	29	106	
Cream soft cheese	918		585
White yogurt	62	190	
Bread		110	20
Rice	113		135
Boiled potatoes	3	325	

The next step is to find out how many of these substances pupils need at their age and in an ordinary day, what is the minimum amount and what is harmful. It is recommended to create this part together with the teacher for one average pupil.

For example: Potassium is a substance that is important for the proper functioning of the heart, skeletal and digestive muscles. Its lack and excess is dangerous for the human organism. For children under 12 years of age, the recommended daily dose of potassium is 1200 to 1800 milligrams. A large amount of calcium is contained, for example, in poppy (1400 milligrams of calcium is contained in 100 grams of poppy).

The next part of the task could be independent, but again we can let pupils work in pairs or small groups. Pupils should prepare a menu that will most closely match the values found.

Possibilities of task variability: If we want to make the task more difficult, we can include a requirement to improve the table so that the table itself can calculate the energy value or the quantity of individual substances according to the amount of food used. On the other hand, the task can also be simplified by assigning individual tasks, for example: How many grams of bread would the child have to eat according to the table to receive 1,200 milligrams of potassium? How many grams of white yogurt would we have to eat, according to the data in the table above, to receive 1,400 mg of calcium, thus the same amount of calcium as from 100 g of poppy? (It is necessary to use the figure in the table rounded to hundreds for the calculation.)

As for the motivation, pupils can map their diet according to these tables, and adjust it so that it is balanced and as healthy as possible according to available information. In addition to focusing on nutrition and food composition, pupils practice searching for information on the Internet, assessing the truth of the information they



find, creating or supplementing a spreadsheet with formulas that enable them to work more easily with the spreadsheet, thus developing their information literacy.

Results, Conclusions and Recommendations

Within the framework of the project, intensive communication took place with the involved primary and secondary school teachers, students of follow-up master's programs, field and general didactics, and other experts from faculties preparing students for the teaching profession. We have formulated the following conclusions, suggestions and recommendations with relation to the didactic category of learning task and we believe that their respect will lead to an improvement in the quality of learners' learning:

- **Learning tasks linking learning at school with the real life of the pupil:** we recommend creating those sets of learning tasks that are close to pupils' situations in their daily lives. Pupils think about the use of their knowledge and skills a lot, but equally important is their transfer, so that it can be followed up on them with the next level of education or lifelong learning. It is profitable if the learning task is presented as a challenge to address the pupil; as an urgent social problem, a research project, or, as an eventual product creation etc. from the area of pupil's everyday life. The use of inter-subject relations is a matter of course here. It is clear from the experience of teachers that it is motivating for pupils when the outcomes of learning are products in which pupils see their personal contribution to solving a task, their own concept of situations and their effort.

- **The complexity of the set of learning tasks:** it is motivational and beneficial to create those sets of tasks that the pupils perceive as a closed, complex set by which they "exhaust" the topic (based on project teaching principles). It is usual for pupils to receive a set of tasks at the beginning of the course, usually in the form of a worksheet, or similarly designed work material, so that they can observe the interconnection of the learning tasks. Usually, it is necessary to solve the tasks in the presented order, but the possibility to adapt the procedure and the way of solving the tasks to themselves is also welcomed by the pupils.

- **Learning tasks comprehensively developing the pupil's personality with an emphasis on the attitude (affective) component:** the requirement for comprehensive development of the pupil's personality is not easy to realize in teaching, it depends very much on the output of a particular subject. It seems that an increasing share of the responsibility for the "moral" development of the pupil's personality, the pupil's education, is transferred to the teacher - the school here largely substitutes for the absence in the family. Evaluation of learning tasks aimed at developing the attitude component of the pupil's personality is very difficult; one can evaluate interest, effort, shift in pupil's learning.

- **Using interdisciplinary relationships in teaching:** pupils become more intensely, more naturally aware of the interrelationship between different fields of human activity and "learn" to use the knowledge and skills acquired in learning when appropriate and necessary to use it, not solely in the context of the subject.

- **Increased objectivity of teaching:** hereby we mean the illustration, which will primarily be the output of the pupil's learning, or possibly 'supporting' his/her learning, and which will connect more of his/her knowledge and skills. We start from the concept of visualization, which, in accordance with Spousta (2003), is understood as visual vision, imagination, visibility. The essence of visualization is related to cognition - visual presentation is an important means of communication, because it complements, deepens and thus enriches verbal communication. It is necessary to respect this - of course to a reasonable extent - as pupils increasingly prefer pictorial (or perhaps more graphic) information to verbal information. The main effects are the stimulation of interest and motivation in the pupils, visualization helps to remember the content and faster retrieval of information from the memory, provides information difficult to describe in words



Based on the above conclusions and experience with the project implementation, regular inclusion of non-standard tasks into mathematics lessons not only improves the educational process, but also encourages pupils' motivation and interest in mathematics. Therefore, we believe that their use by teachers of mathematics will also give them a new impulse within their teaching profession.

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References

- Holoušová, D. (1984) *Pedagogická teorie učebních úloh*. Praha: SPN.
- Holoušová, D. (1986) *Psychologická teorie učebních úloh*. Praha: SPN.
- Kropáč, J., Chudý, Š. (2019) *Outliers of Action Research – the Identity Construct of Future Teachers*. Sabiedrība. Integrācija. Izglītība. Starptautiskās zinātniskās Konferences Materiāli 2019.gada 24.-25.maijs. Society. Integration. Education. Proceedings of the International Scientific Conference May 24th-25th, 2019. Rezekne: Rezeknes Tehnoloģiju Akadēmija.
- Mareš, J. (2013) *Pedagogická psychologie*. Praha: Portál.
- Metody pro rozvoj matematické gramotnosti na I. stupni ZŠ* (2011). Kafomet. Stařeč: Infra.
- Metody pro rozvoj matematické gramotnosti na II. stupni ZŠ* (2011). Kafomet. Stařeč: Infra.
- Rámcový vzdělávací program pro základní vzdělávání*. (2013). [online]. [cit. 2019-18-07]. Dostupné z URL <http://www.nuv.cz/t/rvp>.
- Starý, K. et al. (2014). *Úlohy pro rozvoj dovedností. Metodická publikace pro učitele základních škol a víceletých gymnázií*. Praha: ČŠI.
- Spousta, V. Vidění je vědění – ke gnozeologickým aspektům vizualizace. In *Pedagogická orientace*. 2003, č. 3, s. 22 – 27. ISSN 1211-4669.
- Tollingerová, D. K pedagogicko – psychologické teorii učebních úloh. In *Socialistická škola*. 1976, roč. 17, č. 4., 156-160.
- Volfová, M., Krejčová, E. (2011). Rozvoj kombinačního myšlení – dvě hry. In *Metody pro rozvoj matematické gramotnosti na II. stupni ZŠ*. Stařeč: Infra.



MIS's Impact on HRM: Azerbaijan Case

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Abstract

With the increasing influence of globalization and technology, organizations have begun to use information systems in various functions and divisions in recent years. Human resources management is one of the departments that utilize management information systems. The software enables human resources to be implemented electronically. The objective of this research is to determine what parameters of the HR program to improve the human resources management and efficiency of processes in enterprises and to prepare HR software in accordance with Azerbaijan labor legislation. Because of the research, an online Human Resources Management Software Assurance model for small and medium-sized enterprises was developed in accordance with the Labor Legislation of Azerbaijan. This model offers full-function HR software that can be accessed by businesses with less budget than those who cannot afford a lot of software. Among the limitations of the research is that most businesses in Azerbaijan do not share information about software used because of their confidential nature.

Keywords: HRM, MIS, Software, Technology

Introduction

It is very important to choose the right HRIS. Companies must invest in the system that will fit their goals, objectives, mission and values. It is very crucial to customize the software to the unique needs of the company. Because if software is not well customized or well-adapted to the company's environment it will not meet the organizational needs. Purpose of this thesis is to find answers to the following questions: How Management Information Systems influences human resource management? How did MIS change the HRM models? What features an HRIS must have in order to successfully meet the organizational goals? How to design an HRM software that will fit well in company's environment? Which software do companies use in their HR departments in Azerbaijan? Are HR managers satisfied with their current software? After answering the questions listed above, this thesis will explain how to develop an HRM software from the scratch: starting from database design to backend coding and creating a graphic user interface (GUI).

Research method was based on analyzing the currently used software in terms of their front-end and back-end languages, Graphic User Interfaces and the parameters. By analyzing them, this article proposes a software model.

This thesis will mainly help the software companies, which offer HRM systems. In addition, it will help HR managers to choose suitable software for their needs. Application area of this article is management information. HR specialist will benefit from the results of this article for choosing the software or designing their own software according to their structure. This thesis will define HRM software as a term and create a standard set of features and parameters that HRM software must have in order to cover the organizational needs. It aims to show the importance of using an automated system in HRM.

Not only HR specialists but also companies who offer IT solutions to enterprises or software developers will benefit from this research. Programmers can create suitable applications for enterprises only when they have clear understanding of management policy of the company in the field of HR including recruitment, compensation, payroll system, KPI system, performance measurement. This thesis is going to help developers understand the key HRM functions and how to implement them in their software.



DEFINING AN HRM SOFTWARE

Management Information Systems can be considered like an intersection of computer sciences and organizational management, which deals with issues such as infrastructure, needs, or planning related to information systems within an enterprise. Management Information Systems have several fields of studies like Decision Support Systems, Executive Information Systems, Marketing Information Systems, ERP Systems, Office Automation Systems and HRM Systems (UKessays, 2016).

Human Resource Management Systems is the direct impact of MIS with HR Management. To understand the relationship between these two disciplines, we must clearly identify the focal points, application areas and methods of both. As our aim is to define what Human Resource Management Systems stand for, we must start discussing the core of these systems: Human Resource Management.

It is undeniable fact that Human capital or as we call it resources are commonly accepted as vital and crucial part of each organization. No matter if company manufactures goods or provides services, without the manpower no company can function or operate. As Lyndall Urwick a famous management consultant and business thinker remarked: "Business institutions are successful or fail in the long term not by markets or equipment, but by employees." (Groth, p15) Human resource management is the science that searches the effective ways and methods to manage the employees to reach the goal of making them more fulfilled and beneficial. Every organization has its grand strategy, a roadmap to follow within certain time scope, which contains the total philosophy, culture, objectives and goals that company intends to reach. It is impossible to realize any plan without making your strategy adopted and applied by your human resources. Human Resource Management covers all the activities developed for the effective use of workforce of the employees within the company. The essential obligations of an HR manager fall into three main areas:

- staff management
- employee allowance and assistance
- job description or design

Essentially, HRM's goal is to boost the efficiency of the company by improving the productivity of its employees. Despite the increasing speed of the development in the global market, it is not quite possible to change this task in any radical way.

Figure 1: Scope of Human Resource Management





Source: Berthel, 2007, p 133

We must understand that the purview of HRM is ample and covers all the processes related to people's dimension of the organization. The graph above shows the objectives of HRM.

The main mission of HRM as a discipline is to make sure that, company hires the best talent and develops its employees' skills and creates working environment, which aligns the workforce with the needs of organization, and make an excellent contribution to the task. Well-established HRM practices help to make the organization more flexible to adapt to the environmental changes experienced by organizations. We can group these changes as follows:

- Growing competition
- Globalization of the market
- Rapidly developing technologies
- Faster cycle times
- Higher customer expectations
- Increased demand for competencies
- Changes in the legislation

Types of HRM-systems

HRM systems are conventionally divided into three levels. They are determined by the level of automation of the processes:

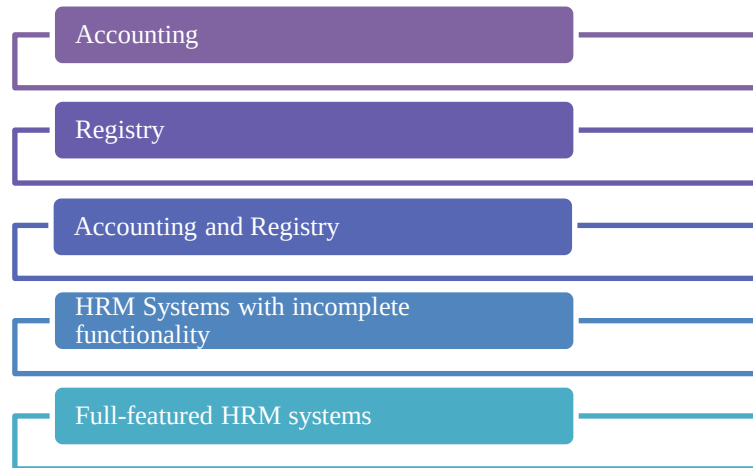
1. **First level systems.** Solutions designed for automatic payroll. This is a typical product with limited functionality, the further configuration of which is impossible, and the number of potential users is extremely narrow.
2. **Second level systems.** More developed solutions to automate personnel records. They are provided with good functionality for maintaining a competent personnel policy. Software products of this level can be supplemented.
3. **Third level systems.** The most progressive solutions, which, besides payroll accounting and accounting of the personnel movement, allow developing individual training programs for specialists, creating "portraits", planning promotion and carrying out certification. Third-level programs can be an independent product, but most often they are part of an integrated enterprise automation system (ERP).

Another classification of HRM systems is based on the composition of functions. From this position, software products can be divided into five groups:

- **Accounting:** Provide payroll, travel expenses, bonuses and deductions, work orders, etc.
- **Registry:** This is the compilation of staffing, personnel reporting, accounting holidays, travel, sick leave, keeping personal files of employees.
- **Accounting and registry:** Systems combining the first two groups.
- **HRM systems with incomplete functionality:** The software products of this group, in addition to accounting and accounting functions, include HR-contour: motivation management, analysis of staff performance, certification and assessment of professional suitability of employees, planning personnel changes, ways to improve the system.
- **Full-featured HRM systems:** These are HRM-systems of the fourth group, to which the function of generating reports for control bodies or management of the holding, and statistics is added.



Figure 1 : Classification of HRM systems based on functions



Source: “Комсомольская правда”, “Зачем внедрять автоматизированную систему управления персоналом и как выбрать оптимальное решение”, Accessed March, 2019 <https://www.kp.ru/guide/avtomatizirovannye-sistemy-upravlenija-personalom.html>

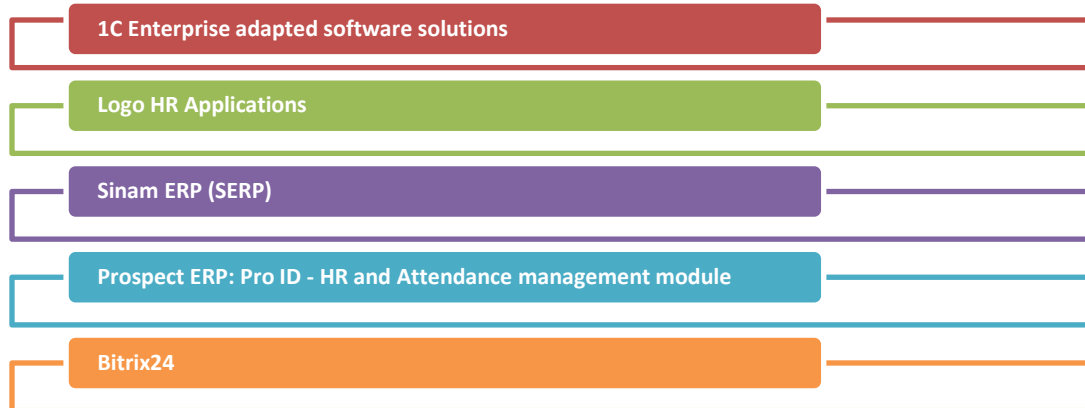
In practice, modern HRM-systems contain functional blocks or also called as modules distributed over three technological levels: operational, user and strategic. The first two software levels are well developed in most software products. The system of strategic personnel management is still undergoing active technological development, the leadership in which does not always belong to the major players in the world market.

General Overview in Human Resources Management in Azerbaijan

In our country today, financial resources for enterprises are generally in the foreground compared to human resources. The success of the enterprises is largely suspended from the qualifications of their employees, the value they create and the skills they have. In Azerbaijan, human resources management and personnel management concepts are accepted as equivalent and used synonymously. In most of the small and medium-sized enterprises (SMEs) in our country, only personnel management works are carried out under the name of Human Resources. Mixing this concept in Azerbaijan is different in terms of sectorial basis. In the private sector, enterprises are encouraged to carry out human resources functions such as recruiting, coordinating workers, controlling workers, and performance measurement in order to be successful. Each business is able to utilize its own software to optimize its software or to have ready automation systems. In public sector organizations, there is no possibility to get software suitable for the organizational needs such as private sector, and the developed applications or software usually add more than one organization within its own structure.



Figure 2: Software used in local market as an HRM Tool



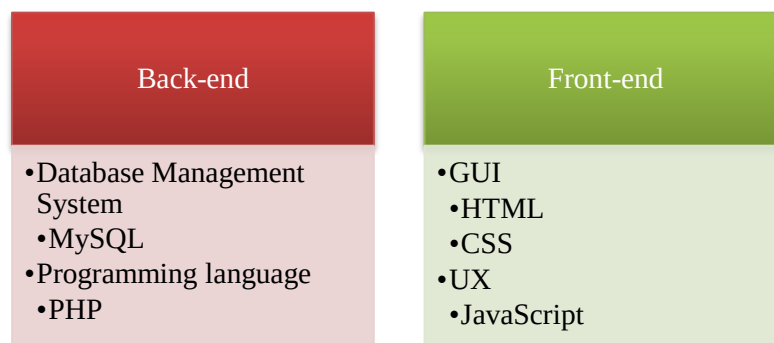
Source: Figure was created according to market search

After we analyze the software listed above (Figure 2) we can clearly see that, all the applications have almost similar problems. One of many faced problems by exploiting software is the complex Graphic User Interface. GUI must be user friendly and easy to understand. Some applications require certain focus group trainings in order to help HR managers to use the software. Second problem that is worth mentioning is that these applications have slow response times.

HRM software model development

I have divided the development process into two phases: back-end and front-end development. Each phase requires its unique programming languages and methods. Here in the below, you can see the technologies that I have used to develop an HRM software.

Figure 3: Technologies used to develop an automated HR Application



As a database management tool, I have chosen MySQL. MySQL is the most used DB system on the Internet. It is not designed to work with large amounts of information, but its application is ideal for Internet sites, both small and large enough. This software allows us to connect to the database, send SQL queries and receive a response (result set). As I mentioned above, that MySQL was not designed for large amounts of information. However big platforms like Facebook, Twitter and Pinterest use MySQL (Дюбья, 2007, p45).

MySQL is distributed under the terms of the GNU General License. GNU stands for “GNU's not UNIX” (Oracle Corporation, MySQL 8.0 Reference Manual). Within the frame of GNU project, the author transfers the software he or she developed into the public ownership/access.



DBMS does not provide user with the processed information. DBMS gets the array of information from the database according to the SQL query of the user, and sends raw data to user. In order to process raw data, we must use programming language. As a programming language I use PHP. PHP actually has little to do with the internet in its original form. Rather, it is a simple programming language, but due to its structure it is well suited for Internet applications (Савинов, 2014, p35). When PHP is used in web pages, it is parsed when the server, which is evaluated, calls the page. It creates a new file, mostly encoded in HTML, which is then sent to the client's browser (Маклафлин, 2013, p43). The browser never gets to see the source code of the file, but only the output.

For the UI of the application HTML and CSS will be used. HTML was designed so that the pages displayed on all devices the same. For many years, web developers have been waiting for the appearance of support for new functionality described in the HTML 5 specification in a new generation of browsers. Now HTML 5 has a powerful functionality, such as multithreading, geo-location, embedded databases and embedded video. Over time, HTML has had many updates. CSS is actually a style language that defines the display of HTML document and its components. CSS works with fonts, with colors of characters and backgrounds, with borders, with lines, with height and width of display elements such as div containers or tables, with background images, with positioning of elements and with so many other things that actually make a web page. For better understanding we can say that, if HTML is needed to structure the content of the page, then CSS is needed to format this structured content(Макфарланд, 2016). In order to improve the UX I have used JavaScript in the application. The best way to explain JavaScript is to use examples. JavaScript is inserted into the HTML of a web page and then are executed by the browser. This means that as long as a browser does not execute a JavaScript, the underlying action will not happen. Let's have a look how JavaScript code looks like and how it is linked to the html code of the page.

The code has onkeyup function which is linked to letterOnly() function that is created before. These text fields name, surname must be only text to be valid and transferred into our database. User may make a mistake by typing the name of an employee and add some numbers or symbols. In order to prevent such errors at the real-time we use this basic function. This function checks each symbol that user inputs on every key press on the keyboard so that user cannot type any number to the field that is required to contain only text. The time when user types any number for example, function replaces it with blank space. Just imagine how easy it is to make the user experience better just using a small script. The same function can be used in the fields where user must input only letters for instance: telephone numbers or Social Security Numbers.

After finishing the development of HRM Web Application, we can analyze its advantages:

- Software is in Azerbaijani (Other language options are also available)
- No need to create focus groups for training – User friendly GUI
- Cross-platform and 24/7 access
- Can be installed on local server
- Easy to migrate database from previous software if DMS was SQL
- Real-time reporting
- Export to PDF, Excel and Word file formats
- Can be developed with low budget
- Notification system

Results and Suggestions

The purpose of this article is to demonstrate how Human Resource Management can increase its process efficiency by applying new technologies and software. In the developed countries, companies and universities



have tight relationships and collaborations in the research area. Companies are interested in the new approaches and theories that can be applied in the practice. Universities should not only provide theory, but also must contribute new techniques and models for the industry. Companies often acquire knowledge for innovation from external sources and then integrate it with the internal Research and Development. Unfortunately, in Azerbaijan, companies are not interested in collaboration with universities. In addition, the reason is that, universities are not playing a role of research institutions. However, in the near future, universities will adapt to the new research university model and students will develop new management models for the fields like Marketing, Human Resource Management, Logistics or Production.

This article does not only explain the connection between two disciplines: MIS and HRM, but also creates a possible web application model with all the technologies used to develop it and the scenarios it can be used for. Main problem in the HR Management in Azerbaijan, is that majority of HR professionals are not aware of the new technologies and software. There are several reasons for that. First, HR managers do not have a clear understanding of what HRM application is and what parameters should it have. Second reason why most HR applications used in local market do not provide all the required HR tools is that software companies do not know which processes Human Resource Management has and how can these processes be automated. The main problem of almost all software in local market is that, their only goal is to store information and show results of search queries. They do not provide the information necessary for the Decision-Making Process and Human Resource Planning.

Today markets are changing every day, and keeping up with the changes require very flexible organizational structure and employees. No matter how companies try to increase efficiency in processes, at the end of the day employees' skill sets and abilities, their motivation, performance play the crucial role. Human Resource experts must keep track of the employee performances, their attendances, health issues, trainings and personal developments so that it could be possible to assign the right employee to the right position. When employee fully meets the requirements of his or her current position, there is a high probability that he or she will be successful. Selecting the best candidate is very difficult and is dependent on multiple factors. In the local market, most of the admissions to the work are done by submitting paper resumes. Imagine a situation where HR manager has to deal with all the resumes and read them manually and evaluate on the go. This is physically not possible to keep track of all the resumes and make a decision based on candidate criteria. Without automated resume system, HR manager cannot increase the speed of the selection process. That is why, the HRM application model that I have designed, has its own online pool of employee resumes. That online CV pool in advance will define certain parameters, which will help Human Resource managers to differentiate and compare the candidates for the positions that they have applied for.

Next option that, software model presents is real-time reporting, which demonstrates important statistical information about the employee attendance, Key Productivity Indicator, distribution of the employees related to their position, department or gender, average age of employees relating to their departments and positions, employee turnover rate and vacation statistics. This reduces the time HR managers spend to prepare reports and make decisions about the future plans of the organization. All the reports are presented in the form of tables and pie charts which makes analysis even more understandable. Users of the application have the option to download this report in the form of an excel file or pdf file.

This article will be very useful for both HR managers and developers. From the Human Resource managers' perspective, this article can be useful to understand the importance of the software usage and how they can start designing their own software. In most cases, companies ask software studios to develop an application without providing a particular design or database scheme or functionality. Main reason is that, most people who work in the HR department are not familiar with the technologies used in software development. Most of the companies



still use only Microsoft Office programs to store the information. In addition, the sources in the local market where they can get information about the HRM technologies are not many. Nevertheless, trends in the HRM are changing and the software are almost everywhere. Selecting or designing the best software to meet the organizational structure and to fulfill the HRM needs plays an important role in the Decision-Making process. Software can make processes easier, when they are designed to increase the process efficiency. This article provides a software model that can be easily adjusted to the needs of HR managers. This software model is not a market standard; it just provides the functionality that HR software meant to have. With that model, HR managers can demand Software companies to design software with those characteristics. From the developers' perspective, with the first chapter of this research they can get information about the essence of HRM and its processes. Better understanding the problem helps to come up with innovative and efficient solutions. The more developers know the work HR managers do, the better the design and the user experience of the software will be. The most important result of this research is that, even small companies with low budgets can acquire software with all the functionalities required in the Human Resource Management. The HRM Application model is budget application, because technologies used in the development of the software were mostly open-source and free. Even the application front-end design was a gratis template. Using all the possible open source tools in the development eventually makes the costs of development process lower. Instead of paying huge amount of money to acquire a license for the software or using a subscription method to get access to cloud based applications, this model can be acquired with a lifetime license and comparably with lower costs.

References

- Berthel J, B. F. (2007). Personal- Management - Grundzüge für Konzeptionen. Stuttgart. 790 Seiten
- Corporation, O. (2018). Oracle Human Resources Management Systems Compensation and Benefits Management Guide. 938 p
- Corporation, O. (n.d.). About. Retrieved 03 20, 2019, from MySQL 8.0 Reference Manual: <https://dev.mysql.com/doc/refman/8.0/en/data-types.html>
- Groth, L. (n.d.). Overview of theories on organization and management. Retrieved 03 12, 2019, from Institutt for informatikk, 85p
- UKessays. (2016, 12 05). Strategic Human Resource Management At Walt Disney Business. Retrieved 08 21, 2018, from <https://www.ukessays.com/essays/business/strategic-human-resource-management-at-walt-disney-business-essay.php?vref=1#citethis>
- Дюбуа, П. (2007). MySQL Сборник рецептов.Символ Плюс. 1058 с.
- Маклафлин, Б. (2013). PHP и MySQL Исчерпывающее руководство.ООО Издательство «Питер»512 с.
- Макфарланд, Д. (2016). Новая большая книга CSS .Издательство «Питер». 720 с.
- Савинов, П. (2014-02-03). PHP: Правильный путь.Lean Publishing. 63 с.
- Зачем внедрять автоматизированную систему управления персоналом и как выбрать оптимальное решение. (2017, 04 17). Retrieved 05 02, 2019, from Комсомольская правда: <https://www.kp.ru/guide/avtomatizirovannyye-sistemy-upravleniya-personalom.html>



Analyzing of Consumption Styles in Sustainable Competition: The Case of Azerbaijan

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Abstract

It is seen in literature review that businesses have two main aims. The first is to make a profit and the second is to maintain its existence for a long time. In order for businesses to maintain their assets for a long period of time, businesses should analyze consumer behavior and follow the marketing strategies of competing firms. It is necessary to make the competition sustainable. The complexity of consumer behavior is also observed in the literature. Purchasing processes of consumers who are under the influence of many material and moral factors are not very simple. Consumers have different personalities and identities which are influenced by many factors. This makes the consumption process more complicated. In today's societies, it is clear that consumers do not consume products or services only for functional purposes. Consumers can add meaning to these products and services and change their purpose of consumption. When the consumption process is examined, it is seen that various styles are discussed. These are rational consumption, hedonic consumption, symbolic consumption, prestige consumption, conspicuous consumption, compulsive consumption and the modes of consumption in which we can further extend the order. In this research, the role of consumption styles in gaining sustainable competitive advantage of enterprises was emphasized and a research was conducted in Azerbaijan. In this study, questionnaire research was applied as a method. The current research was carried out in Baku, the capital of Azerbaijan between April and May 2019. The study was conducted over a period of two months. Around 600 questionnaires were applied. Some questionnaires were canceled due to inaccurate and incomplete questionnaires and a total of 536 questionnaires were surveyed. The survey was conducted to determine the attitudes of the consumers of Azerbaijan regarding their consumption styles. In this study, we try to determine the consumption styles of consumers and the consumer cluster profiles for various consumption styles with using cluster analyze.

Keywords: Sustainability, Consumption Styles, Consumer behavior

Introduction

Purchasing processes of consumers who are under the influence of many material and spiritual factors are also very complex. Consumers have different personalities and identities and are influenced by many factors. This makes the consumption process even more complicated. In today's societies, it is clear that consumers do not consume products or services solely for functional purposes. Consumers can add meaning to these products and services and change their purpose of consumption. When buying a product or service, consumers are influenced by many factors in the purchasing process. Price policies of firms, purchasing behavior of reference groups, demonstration of social status, etc. Factors such as affect consumer purchasing decision process.

In this section, generally accepted rational consumption, conspicuous consumption, hedonic consumption, planned purchasing and symbolic consumption styles are discussed and explained in the literature.



Rational Consumption

Utilitarianism is defined as the belief that the value of an object or action is determined by its utility. When the literature is analyzed, it is seen that utilitarian and rational consumption are used synonymously (Ünal and Ceylan, 2008; Doğrul, 2012; Köker and Maden, 2012). Utilitarian consumption is an approach that focuses on the concrete benefits that the product or service will offer to the individual, mainly within the framework of benefit-cost elements (Altunışık and Çallı: 2004: 232). Utilitarian consumption behaviors focus on the functional characteristics of products and services. In addition, decision-making processes of individuals who tend to utilitarian consumption are predominantly based on rational processes. Consumers are considered as rational decision makers in this process. Marketing communication messages presented to them are formed as messages constructed over these functional features (Köker and Maden, 2002: 101).

Unplanned Purchase

Unplanned purchases are purchases made as a result of the sudden appearance of an impulse, often without any plan. If the consumer does not have a purchase plan when they go shopping, the stages of the entire purchasing decision process take place within the store (Odabaşı and Barış, 2004: 377). Expressions such as *“I usually buy suddenly”, “I want to buy a lot of new things”, “I buy many products even if I don’t need them”* are common buying behaviors that are called unplanned. The choices of consumers at the time of purchase; consumer morale depends on many factors, such as the time pressure at the time of purchase and the specific situation of the need for the product. This is a rapid decision process. Consumers are far from rationality, and generally behaviors are emotional. This can be defined as a general trend for a consumer and the consumer in this trend may not be able to see clearly the results of his behavior (Bati, 2010: 2).

Hedonic Consumption

Today, instead of rational purchasing decisions, consumers make different purchasing decisions under the influence of external and internal factors. One of these is hedonic consumption. Hedonic consumption means consuming not to meet human needs, but to enjoy life.

During consumption, individuals are satisfied with pleasure through senses, emotions or dreams. While these emotions can be positive or negative, they can lead consumers to buy-in actions by reinforcing the pleasure or painful experiences of consumers (Babacan, 2001). In the traditional sense, the factors that enable the consumer to enjoy the products are; satisfaction of the senses, protection, rest, having a good time, being successful, curiosity and gaining new experiences, ease of use, long-term use, ease of maintenance, economics, being healthy, liking, gaining prestige, keeping up with fashion, being different, making others happy, to obtain new information (Özdemir and Yaman, 2007: 81-91).

Symbolic Consumption

It seems that consumers have a tendency to exhibit and show more in product preferences rather than benefiting from the functional properties of the product. However, consumers are not content with owning, they are trying to achieve satisfaction by integrating the personality with the meaning of the product. In our age, products are introduced not only as a whole with physical properties but also with their own meaning. Consumers buy not only these products but also their meanings. Symbolic consumption is also thought to be synonymous with buying meaning. These meanings are made even stronger by brands. Brands express and inter-human relationships. Consumers use brands to understand, solve and develop each other in their relationships. Brands serve as resources for the creation, reproduction and realization of identities. Consumers using brands create their own stories and add meaning to their life stories. In short, consumers choose lives rather than brands. Bocock (2009) states that what is desired in postmodern consumption is not the actual products consumed.



According to Bocock, “real” objects are the substitutes of desires. Desires to be fulfilled are symbolic desires (cited by Azizağaoğlu, 2010: 40).

Conspicuous Consumption

Even though consumers try to be planned and rational in their purchasing decisions, they do not always realize this type of consumption. Consumers' attempts to prove that they belong to a certain social group, not to fall behind others and their desire to differentiate them lead to a race. This usually pushes them to irrational forms of consumption and from that sentence to conspicuous consumption.

Conspicuous consumption; consumers who climb to the upper tiers by changing classes in the social hierarchy, instead of reducing their demands in the face of rising prices of goods; it can be defined as consumption for the purpose of showing off, which means that they prefer more expensive substances, although they can meet their needs with cheaper and saving substances. (Heffetz, 2004: 3). Along with the fact that the conspicuous consumption is carried out by the consumers climbing to the upper levels, this type of consumption is also realized by the consumers in the lower level in terms of social status. As a matter of fact, Acar (2000) argued that conspicuous consumption was realized by all social classes and that they would never give up their behavior. As a matter of fact, in terms of social status, consumers in the lower groups are trying to resemble those in the upper tier, which is only possible by changing consumption standards. Because Veblen (1899) emphasized this idea.

Tüketicilerin Gösteriş Tüketimine İlişkin Faktör Analizi

Factor Analysis was used to determine the opinions of the participants about the conspicuous consumption. The following table shows factor values, how much of the total variance of each factor, and reliability coefficient (Cronbach Alpha) values for each factor. As a result of factor analysis, KMO value is 0.87. This shows that factor analysis is appropriate.

Table: 1: Results of Factor Analysis of Conspicuous Consumption

Factors	Factor Values	Described Variance (%)	Cronbach Alpha
1. Show of consumers		41.87	0.73
• I like being perceptible at the ceremonies and banquets I attend.	0.828		
• I like to stand out with the clothes I wear.	0.720		
• I like to use expensive accessories (watches, ties, jewelry, etc.).	0.529		
• I prefer to eat out in luxury places with my acquaintances.	0.511		
• I try to wear different clothes every day.	0.510		
2. Difference and Originality Lovers		10.17	0.60
• Branded products make people look valuable and special.	0.865		
• It is very important for me to be special and rare when buying the product.	0.546		
• I try to get the products that very few people can have, rather than buying a product that everyone can have.	0.490		

According to this factor analysis shows that there is a 2-dimensional solution and these two dimensions explain 52.04% of the total variance. The first factor is show off consumers. They like being perceptible at the ceremonies and banquets they attend. They use expensive accessories and clothing. These consumers who like to wear different clothing every day are especially fond of clothing. They prefer to eat in luxurious places with their acquaintances.

The second factor differs from others, loving originality. Consumers in this group also show off consumers. But the most important difference from the above factor, while showing off completely different from the others, they prefer to be original. They consume branded products, according to them branded products show people



valuable and special. They are in the upper class in terms of social status. When they buy products, these consumers are asked to be special and rare. When buying precious stones, furs, cars, other people pay attention to the absence of these products. Rather than buying a product that everyone can have, they prefer to have products that very few people can have. When they are on holiday, they do not go to places where everyone has a holiday.

Other Consumption Styles' Factor Analyse

Factor Analysis was conducted to determine the opinions of the participants about consumption styles. The following table shows factor values, how much of the total variance of each factor, and reliability coefficient (Cronbach Alpha) values for each factor. As a result of factor analysis, KMO value was 0.68. This shows that factor analysis is appropriate.

Table 2: Other Consumption Styles' Factor Analyse Results

Factors	Factor Values	Described Variance (%)	Cronbach Alpha
1. Symbolic Consumption Behavior		20.24	0.62
• Product image is important in my decision to purchase products.	0.696		
• When buying products, make sure that they are branded.			
• I would like to express myself with the products I use.	0.663		
• Foreign branded products are more prestigious.	0.618		
• Consuming exotic products and foods is a reflection of my personality.	0.607		
	0.525		
2. Rational Consumption Behavior		17.79	0.51
• I try to be rational when I buy.	0.685		
• Param az olduğunda eğlenceye fazla para harcamam.	0.677		
• I deduct the daily shopping budget, when I have less money.	0.579		
• I buy on my budget rather than fashion.			
	0.528		
3. Planned Consumption		11.06	
• I always plan on shopping.	0.832		

According to this factor analysis shows that there is a 3-dimensional solution and these three dimensions explain 49.09% of the total variance. Consumers generally consider three issues or criteria when evaluating ideas about their consumption patterns. These were named as symbolic consumption behavior, rational consumption behavior and planned consumption behavior in order of importance. Table 2 presents the results of the analyzes. Consumers in the first factor are those who make symbolic consumption. The product image is important in purchasing decisions of these consumers. It is seen that they focus on branded products when purchasing products. They accept foreign branded products as more prestigious. They want to express themselves with the products they use. They like to eat exotic products and foods.

The second factor is the consumer group which makes rational consumption. Consumers in this group make rational decisions when buying. When they have little money, they do not spend much money on entertainment and also deduct from their daily shopping budget. They make purchases according to their budgets rather than fashion. In terms of social status, it is the consumer group with lower and lower-middle income groups. Üçüncü faktörde yer alan tüketiciler, *planlı tüketim* yapan tüketici grubudur. Tüketiciler alışverişte her zaman plan yaptıklarını vurgulamaktadırlar. Bu tüketici grubu alışveriş yaptığında hangi mağazadan hangi ürünü ve hangi markayı satın alacağını iyi bilmektedir.

Cluster Analyse for Conspicuous Consumption



Cluster analysis was applied in order to reveal the demographic characteristics of the consumers and the characteristics of these consumers within the two factor dimensions related to conspicuous consumption obtained as a result of factor analysis. As a result of the clustering analysis, the factor in which consumers are located was determined. In addition, the characteristics of these consumers have been tried to be revealed. The results of the Clustering Analysis of conspicuous consumption are given in Table 3.

Table 3: Consumer Groups and Characteristics of Conspicuous Consumption

Groups	Characteristics	Demografic Characteristics
1. Show of consumers	They like being perceptible at the ceremonies and banquets. They like to stand out with the clothes which they wear and they like to use expensive accessories (watches, ties, jewelry, etc.). To eat out in luxury places with their acquaintances is their choice. This type of consumers try to wear different clothes every day.	Income group is middle-upper and upper level. This group between the ages of 16-25 and they are usually single persons. Women make up the majority.
2. Difference and Originality Lovers	Their opinion is branded products make people look valuable and special. It is very important for them to be special and rare when buying the product. This consumers try to get the products that very few people can have, rather than buying a product that everyone can have.	The income group is in the lower-middle and middle levels. They are between 36-55 years old and usually married. Men make up the majority.

As it can be seen from the table above, show consumption is divided into two groups.

In the first group, young people and singles between the ages of 16-25 are in the category of show-offs. Women constitute the majority. Consumers belonging to middle-upper and upper income groups in terms of socioeconomic status are included in this group. Consumers in this group have a very high purchasing power, especially because they are in the upper income groups.

In the second group, there are those who love difference and originality. Consumers and married people aged 36-55 are included in this group. Men constitute the majority. Consumers belonging to lower-middle and middle-income groups in terms of socioeconomic status are included in this group. Compared to the first group, we see that men constitute the majority in this group. This group of consumers also show off consumption, but they like to be more distinctive and unique when showing off.

Cluster Analyse of Other Consumption Styles

Cluster analysis was used to determine the demographic characteristics of consumers and the characteristics of these consumers within three factor dimensions regarding consumption styles obtained as a result of factor analysis. As a result of the clustering analysis, the factor in which consumers are located was determined. In addition, the characteristics of these consumers have been tried to be revealed. The Clustering Analysis results of consumption styles are given in Table 4.

Table 4: Consumer Groups and Characteristics by Consumption Styles

Groups	Characteristics	Demografic Characteristics
1. Symbolic Consumption Behavior	Product image is important in purchasing decisions. In purchasing process, they pay attention to branded products and they find foreign branded products more prestigious. They try to express themselves with the	Men constitute the majority. Married ones constitute an excess in proportion. All age groups are included in this consumption style. There are civil servants, lecturers and housewives. Middle-income and working



	products they use. They also consume exotic products and foods as a reflection of their personality.	consumers are included in this group.
2. Rational Consumption Behavior	They try to be rational in buying process. When they have less money, they don't spend much money on entertainment and deduct from their daily shopping budget. They buy according to their budget rather than fashion.	Men constitute the majority. Married ones constitute an excess in proportion. It constitutes consumers between the ages of 36-45. Workers and housewives are in majority in this consumer group. Consumers with low-middle income and working are included in this group.
3. Planned Consumption	They always plan for shopping. When they do shopping, they often make a list in advance.	Women and singles constitute the majority. It constitutes between the ages of 16-35. There are lecturers and students in this consumer group. Low and middle-high income and non-working consumers are included in this group.

As can be seen from the table above, consumption patterns are divided into three groups.

In the first group, consumers who perform symbolic consumer behavior consist of all age categories. Married consumers and men constitute redundancy. Civil servants and lecturers are included in the symbolic consumption factor. In terms of socioeconomic status, middle-income and working consumers are among the demographic characteristics of this group.

The second group consists of consumers who perform rational consumption behavior. Consumers and married people aged 36-45 are included in this group. Men constitute the majority. Workers and housewives are among the factors that make rational consumption. Consumers belonging to lower-middle income group in terms of socioeconomic status are included in this group.

The third group consists of consumers who perform planned consumption behavior. Consumers and singles between the ages of 16-35 are in this group. Women constitute the majority. Lectures and students are among the factors that make planned consumption. Consumers belonging to lower and middle-upper income groups in terms of socioeconomic status are included in this group.

Conclusions And Recommendations

Marketing has two important purposes. These are the determination of consumer needs and the production of products that meet these needs. The concept of benefit is very important in producing and presenting these products to consumers. As highlighted above, consumers do not buy products for functional purposes only. In the consumption process, the benefits that consumers expect from the product vary. It is known to purchase products for showing, pleasure and other purposes.

It is very important for businesses to learn consumer behavior in order to make competition sustainable. In order to be successful in competition, it is necessary to find out the purpose of the consumers' consumption of the products. This is possible with the help of learning consumer behavior. Once consumer behavior is evident, marketers can prepare the appropriate marketing mix.

In addition, it is important to learn consumer behaviors for the society. Increasing cases such as waste and pretension increases the importance of education. Education is the most appropriate tool for determining the materialist thoughts of people and societies and reducing these behaviors.

The aim of the research



The aim of the study is achieving sustainable competitive power of Azerbaijan enterprises with learning consumption styles of Azerbaijan consumers. Learning the consumer styles as well as the demographic characteristics of consumer groups in these groups will help marketers prepare an effective marketing mix.

Research goal, and tasks

As mentioned above, this study was conducted to determine the consumption styles of Azerbaijani consumers. In order to achieve the research objective, the tasks of the study are defined as follows:

1. Determination of consumption styles,
2. Determination of characteristics of consumption styles,
3. Determination of demographic characteristics of consumption groups.

Method

In the aforementioned study, questionnaire method was applied. 536 consumers were surveyed in Baku, the capital of Azerbaijan. Data were analyzed by SPSS program.

References

- Acar, Ali, (2000), "Conspicuous Consumption", Economic and Technical Journal Standard, No: 457, pp. 38-50
- Altunışık, Remzi, Çallı, Levent, (2004), "A Research on Unplanned Shopping and Hedonic Consumption Behaviors: Using Information in Purchasing Decision Process", Osmangazi University Faculty of Economics and Administrative Sciences Congress Proceedings, 2004
- Azizağaoğlu, Arzu, (2010), "Symbolic Consumption: Effects of Symbolic Properties of Products on Purchasing Behavior ", PhD Thesis, Sakarya University
- Babacan, Muazzez, (2001), "Hedonic Consumption and Reflection on Special Occasions ", 6. National Marketing Congress, pp. 1-12
- Batı, Uğur, (2010), "Unplanned Purchasing Behavior of Consumers", (November 2010)
- Bocock, Robert, (2009), Consumption, Dost Press, (Translation: İrem Kutluk), Ankara, July 2009
- Doğrul, Ümit, (2012), "The Effect of Utilitarian and Hedonic Motives in Electronic Shopping Behavior", Journal of Social Sciences and Humanities, Vol: 4, No: 1, (2012), pp. 321-331
- Heffetz, Ori, (2004), Conspicuous Consumption and the Visibility of Consumer Expenditures, PhD Thesis, Princeton University
- Köker, Nahit Erdem, Maden, Deniz, (2012), "Consumer Perception of Product-Based Innovation in the Context of Hedonic and Utilitarian Consumption: An Empirical Research", Journal of Business Studies, Vol: 4, No: 2, (2012), pp. 94-121
- Odabaşı, Yavuz, Barış, Gülfidan, (2004), Consumer Behavior, MediaCat Press, İstanbul, October 2004
- Özdemir, Şuayıp, Yaman, Fikret, (2007), "Gender Differentiation of Hedonic Shopping", Eskişehir Osmangazi University Journal of Economics and Administrative Sciences, Vol: 2, No: 2, (October 2007), pp. 81-91
- Ünal, Sevtap, Ceylan, Cem, (2008), "Consumer Hedonic Shopping Reasons: A Comparative Research in Istanbul and Erzurum", Journal of Economics and Administrative Sciences, Vol: 22, No: 2, (July 2008), pp. 265-283
- Veblen, Thorstein, (2005), The Theory of Leisure Class, Babil Press, (Translation: Zeynep Gültekin and Cumhur Atay), İstanbul, 2005

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Mentoring Support System to Foster Novice Teachers' Well-Being and Integration in the Education Institution

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Abstract

Support provision during the induction period can be viewed as one of the most effective strategies to ensure successful transition from pre-service teacher stage towards independent professional teacher career. The induction period lasting up to five years is frequently challenging for novice teachers, which leads to the necessity to provide additional support during this career stage. The present situation at schools in Latvia experiencing shortage of novice teachers is daunting. Furthermore, there is a tendency for newly qualified specialists to leave the profession due to such reasons as stress, excessive workload, lack of support which result in novice teachers' low well-being. The aim of the research was to explore mentoring as a means of fostering novice teachers' well-being during their first years of professional practice at school. Three research questions were formulated to provide specific information about mentors' assistance, namely, what novice teachers' needs were and what mentors should do to meet these needs, what problems novice teachers experienced that could be resolved through mentor's support and if mentoring could relate to novice teachers' well-being. The research sample comprised 70 novice teachers from different schools of Latvia chosen by purposeful sampling (62 local teachers and 8 international teachers working in Latvia). The research was conducted applying phenomenology as the research method. The findings of the research proved mentoring to be beneficial for keeping novice teachers' well-being and based on the data obtained in the research framework, the recommendations for mentors and novice teachers were elaborated. The research was conducted in the framework of the Nordplus Horizontal Project "Reducing Teacher Drop-Out Rate" (Project number NPHZ-2017/10067) and the project "Multilingual and Multicultural University: Preparation Platform for Prospective International Students" (No. 1.1.1.2/VIAA/1/16/019) co-funded by ERDF.

Key words: Mentor, Novice teachers, Well-being, Lack of support

Introduction

Teachers play the central role in the implementation of quality education. However, the present situation at Latvian schools puts to the fore the apparent crisis within the system given the apparent shortage of qualified teachers. Although the newly qualified professionals are highly appreciated, the problems they encounter during the first years of practice are not eradicated. It results in a large number of novice teachers leaving the profession, which is one of the most topical issues in Latvia and European education space at large (European Commission, 2010).

The reasons for teachers to leave the profession are various, including heavy workload, everyday difficulties to cope with, burnout, stress, lack of support from school administration, feeling of low self-efficacy and low well-



being. Apart from these reasons, the first year of practice is generally considered to be hectic, tense and most challenging in teachers' career. Therefore, it is important to provide opportunities to sustain teachers' resources in order to stay in the profession and minimize teachers' attrition rates. Thus, there is a necessity to find solutions to reduce novice teachers' stress, burnout and maintain teachers' well-being. Furthermore, there is a necessity to provide support and guidance for novice teachers to promote professional growth and successful career, adapt to a school environment, develop teaching skills and positive attitude towards the profession. Unfortunately, there are no central or unified induction programmes for novice teachers at schools in Latvia (European Commission, 2010).

Even though the first steps to address this issue have already been taken given that some schools offer mentor support, still formal unified support programmes are unavailable. Therefore, the aim of the research was to explore mentoring as a means of fostering novice teachers' well-being during their first years of professional practice at schools. It is crucial to note that the spectrum of mentoring concerns various aspects, such as, for instance, dealing with the issues related to the teaching and learning process, communication with students, colleagues and parents, developing problem-solving strategies, lesson planning, student assessment, school culture, etc. That is why it is important to identify novice teachers' needs and difficulties that might be resolved through mentor support provision.

Phenomenology as an approach to research design was applied within the study framework to analyse and describe the lived experience of novice teachers during the first years of work, the experience of having a mentor and its impact on their well-being. The research sample comprised 70 novice teachers from different schools of Latvia chosen by purposeful sampling (62 local teachers and 8 international teachers working in Latvia). Online questionnaires have been used to explore the needs and challenges novice teachers face and an in-depth semi-structured interview – aimed to collect the data on novice teachers' life and work experience under the supervision of a mentor and find out their level of psychological well-being.

Theoretical Background

The notion of "novice teacher" usually refers to an inexperienced teacher entering the teaching profession, though being fully qualified and responsible for the implementation of the teaching process. Often "pre-service teachers" and "in-service teachers" are looked upon as separate categories of novice teachers putting the emphasis on the graduation from the university, finishing initial professional programme and having a diploma as a must for the newly qualified specialist. It matters due to the fact that "It is important to clarify that teacher induction is distinct from both pre-service and in-service teacher training programmes" (Ingersoll and Smith, 2004: 29) or there might be a particular interest "in investigating the transition of pre-service teachers from university life into full time teaching in a classroom" (Poom-Valickis, 2014: 764). Whereas there is no need to divide novice teachers into student teachers and in-service teachers, as "many new teachers adopt traditional teaching methods during their student teaching and early in-service years" and many novice teachers face similar problems on everyday basis (Fry, 2007: 217).

Another point to consider is the length of the period to hold the status of a novice teacher. Fransson and Gustafsson (2008: 13) suggest that it is "until a new teacher no longer is being involved in activities promoting new teachers' professional development". In other words, it is the time when the teacher does not require the support which was necessary before and is no longer at risk to leave the profession. However, the length of this period varies from two to five years. Flores (2006), O'Brian and Christie (2008) claim that novice teachers should get support for at least two years. Whereas Ingersoll and Smith (2003) warn that novice teachers are at high risk of leaving the profession even after five years. "After just five years between 40 and 50 percent of all beginning teachers have left the profession" (Ingersoll and Smith, 2003: 31). Furthermore, Lavigne (2014) also considers teachers who have been working up to five years to be in the stage of beginners.



Within the current research, the term “novice teacher” is used to describe a practicing teacher at any educational institution with little teaching experience (no longer than for five years) in a specific institution, no matter whether having a diploma of teacher qualification or still being a student at any professional teacher education programmes.

To proceed, empirical research on well-being has recently become very influential in guiding social and economic policy. For instance, “investigating teachers’ professional well-being as a quality indicator fits into a policy of monitoring the quality of education” (Aelterman et al., 2007: 2).

It is crucial to highlight that although well-being can be measured in a variety of ways, the basic principles of measuring well-being rely on “subjective indicators rather than objective indicators”, and tend to focus on “individuals rather than groups”, even if there is a particular interest in the well-being of a group of people (Michaelson et al, 2012: 9). Furthermore, by measuring well-being one can help raise awareness of several aspects people are satisfied or dissatisfied with and “help facilitate community-led action to increase well-being” (ibid.) Therefore, the research aims to evaluate novice teachers’ well-being through the exploration of particular elements that destroy or enhance their positive stance with the aim to improve the current situation.

The common practice reveals that the well-being of novice teachers is usually described using negative characteristics. For instance, “the first months and years of teaching are full of pain, confusion, loneliness, and often humiliation” (Jonson, 2008: 46). Teachers reflect on their first year of work using such colourful expressions as “reality shock,” “sink-or-swim”, or “trial by fire”, while Dicke et al. (2015: 1) mention “shattered dreams”, “survival”, “praxis and transition shock”. In addition, empirical research on novice teachers’ identities analyses metaphorical descriptions of their personalities and states challenges the participants encountered in their first year of teaching: “*A soldier; I have my battles*”, or “*I am a person at a crossroads unsure of which route to take*” (Thomas and Beauchamp, 2011: 765).

It is apparent that entering the profession, novice teachers encounter many difficulties they have to cope with. They need to adapt to new conditions, apply academic knowledge in practice and face the realities of school life. Basically, it means that they have to study again intensively, but this time combining studies and work simultaneously. According to Mikelsone and Odina (2017:19) “the correlation of professional identity and well-being is best reflected in the way people react to changes in their lives: what strategies are used to overcome crises and conflicts. Besides these strategies are not specially acquired, they develop and change with the accumulated experience and become evident as a human’s unconscious response to the requirements of reality”. Grimsath, Nordvik and Bergsvik (2008: 219) indicate that “during the first years, the emotions run high, there is an intense process of discovery, and the learning curve is steep”. Hellsten, et al. (2009: 705) state that “many beginning teachers report an inability to cope, and describe feeling isolated as well as frustrated, anxious, demoralized, and overwhelmed by the demands of the profession”. What is more, such a stance becomes a common situation. Therefore, the very first year is considered to be the most difficult, hectic and having a serious effect on the decision whether to stay in the profession or leave.

Nevertheless, numerous studies on novice teachers’ well-being report it to be positive mentioning certain reasons. For example, Schmidt et al. (2017: 93) identified that “the beginning teachers reported far more uplifts than hassles” describing their daily experiences, including communication with colleagues and students’ instructions. Therefore, the researchers indicate that the first stage in the teaching profession might not always be solely demanding, but may also be filled with positive experience.

Although numerous studies provide empirical evidence on the positive impact of mentoring on novice teachers’ well-being, each of them has certain limitations and their findings might not be relevant for the Latvian context. For instance, Kessels’s (2010) and Helms-Lorenz’s (2013) research studies were conducted in schools in the



Netherlands, which had already implemented induction programmes before and, therefore, had appropriate experience in supporting novice teachers with a number of arrangements, which might not be possible in the context of Latvia at the moment. While Richter's et al. (2013) research focused exclusively on mathematics teachers, who might have different issues concerning workload and subject teaching specifics. Furthermore, Richter et al. (2013: 170) claim that "more research is needed to document the longitudinal effects of mentoring on well-being", as a one-year study might be too short to present the evidence of the effect over time. Therefore, the research topicality is substantiated by the necessity to explore the impact of mentoring on novice teachers' well-being in the specific context of Latvia. The sample of the research was expanded to include the representatives of various school subjects and also international teachers working in Latvia. Therefore, the research results will expand the knowledge base for further research on novice teachers' needs and provide solutions to certain challenges they face in the local context.

Research Methodology

The research on fostering novice teachers' well-being and integration in education institution was performed with the aim to study lived experience of novice teachers having mentors during the first years of practice and to explore the phenomenon of novice teachers' well-being and its relation to mentoring. The research was implemented applying phenomenological research method. The research method was used to illuminate original experiences of the respondents and collect the life stories to explore their individual interpretation of the feelings, emotions and attitudes with the aim to understand the phenomenon of novice teachers having mentor in terms of their problems, positive changes, disappointments, inspirations and aspects which promoted their well-being.

The research sample for the study was a group of 70 novice teachers who were beginners in teaching profession practicing for less than five years as a defining characteristic and 8 international teachers who have worked in the new environment for less than 5 years. The participants were selected applying the purposeful sampling strategy "to learn and understand the central phenomenon by participants who are *information rich*" (Creswell, 2012: 206).

Fifty-five novice teachers completed a questionnaire to provide data on novice teachers' problems and needs as well as general information on the support necessary for successful career start. While seven local respondents and 8 international respondents were interviewed to gain detailed opinion on their practice of having a mentor and personal interpretation of such lived experience.

The questionnaires were used with the aim to find out the needs and problems of novice teachers and define the issues that could be solved by a mentor, whereas the interviews were used to get a detailed opinion about one's experience of having a mentor and to reveal personal interpretation of this lived experience. In addition, the interviews were used to provide evidence, if any, about the impact of mentoring on teacher's well-being.

The questionnaire comprised 22 questions aimed to reveal general information about age, education, workplace, workload, period of working as well as specific information about one's working experience, attractiveness of the chosen profession, extra duties performed in addition to everyday workload, challenges and issues connected with the beginning period, assistance of colleagues, mentors, school administration and its necessity, contribution of higher education institutions to one's professional development and obstacles to professional growth as well as examples and kinds of activities required for school work preparation.

The interviews were conducted to excavate a detailed opinion about one's experience of having a mentor and personal interpretation of that to get understanding of this phenomenon as well as to analyse novice teachers' well-being and its relation to the specific context of having a mentor. The interviews contained 13 open-ended questions which were "designed to enable the participants to articulate as much detail about the experience as



possible” (Langdridge, 2007:110). The questions of the interviews were asked to reflect on different aspects from experience of having a mentor and provide relevant information for the research questions put forward, as well as to gain the data for each of the six indicators of multidimensional model of psychological well-being (Ryff, 1995):

- “self-acceptance” or positive evaluation of oneself both in present and past;
- “positive relations with others” or maintaining and valuing relations with people;
- “autonomy” or independence and a sense of self-determination;
- “environmental mastery” or a sense of mastery and competence in managing and controlling one’s life;
- “purpose in life” or goals and a sense of directedness;
- “personal growth” or a sense of continuous growth.

Each domain was defined to be low or high (Ryff, Keyes, 1995).

Findings and Discussion

The problems novice teachers faced within the research framework included excessive workload rooted in the necessity to combine main teaching work and extra responsibilities. In addition, the majority of the respondents reported challenges related to classroom management, such as maintaining discipline and enhancing students’ motivation. One of the possible solutions mentioned was turning to colleagues and administration for help and support. However, it was not always easy for newcomers to build friendly relationships based on trust with colleagues at an initial stage, which made it an obstacle for putting forward this solution as constructive. Nevertheless, novice teachers enumerated certain practical and theoretical solutions which, in their viewpoint, would improve their skills in managing all the professional activities, and help them deal with problematic cases and successfully integrate into the new environment. These included specific professional courses and workshops, university studies, introduction into the school environment and meeting new colleagues in a less formal atmosphere as well as mentors’ assistance.

By and large, the experience of having a mentor had been positively evaluated by all the novice teachers. The respondents described it as *“liberating”, “beneficial”, “a really good part of my life”, “it was a great school”, “I was lucky to have such a support”* and *“having a mentor is wonderful”*. Even though not always a mentor and a mentee matched and a mentor was either authoritative, strict or was unavailable or overloaded, the overall impression of having a mentor was still encouraging. The teachers confessed that mentors taught them a lot, motivated to grow professionally, inspired to open new horizons in pedagogy, promoted teachers’ confidence and helped to overcome many work issues. Those teachers who had a mentor for one year admitted that mentors influenced their work to a great extent and that they were very disappointed at the moment of mentor’s leaving. Those who had a mentor’s support for a shorter time expressed a wish to prolong this period up to one year. It is evident that mentoring matters, despite certain imperfections in the present system of providing support to novice teachers in Latvia.

As it was already stated above, the data were analysed based on the multidimensional model of psychological well-being (Ryff, 1995). The first well-being dimension revealed in the interviews was “self-acceptance”. All interviewed teachers might be given quite a high score for this dimension because they demonstrated a positive attitude towards the self and the work they did, accepted both good and bad qualities about one’s personality and felt positive about the past. For example, *“I was full of consideration of what to become, and I knew it should be connected with journalism, linguistics or psychology and as a result, I have become a teacher: three-in-one (smiles)”* (T1) demonstrates the teacher’s satisfaction with the self-realization in the chosen profession. While the situation with Teacher 4 differs significantly. Although having a high score for **“self-acceptance”**, the teacher stressed that she was not a teacher, but a linguist, who does not teach, but explains language. As concerns her mentor, she did not manage to influence her “self-acceptance” as a teacher due to undisclosed reasons. Thus, Teacher 4 declared that *“So, maybe having a proper mentor would have changed that. Maybe she*



would have given me some more positive vibes or more explanations as to how to want to, because I'm not a teacher. I'm a linguist" (T4). So far, mentoring influence for "self-acceptance" is marked as null in this situation. Another well-being factor is **"positive relations with others"**, based on empathy, trust and understanding human relationships. According to the previously discussed problems, negative attitude from school colleagues or administration might devastate teacher's well-being and cause a feeling of dissatisfaction and isolation at the workplace. One of the participants had difficult relationships at the beginning of her work, she felt unappreciated by other colleagues and did not get support from them due to the fact that she was young and inexperienced and the teachers who had been working for a longer period did not treat her respectfully. *"I was just a schoolgirl for them. They didn't perceive me seriously, absolutely not"* (T1). The feeling of being unaccepted and unappreciated was eradicated only by her mentor's interference, *"by her personal example. Because she always treated me as equal. She introduced me as a colleague to others, for example, we went to Saint Petersburg within a project for teachers, and she made an accent on me being a teacher, not a student"* (T1). Unfortunately, one teacher stated that her mentor did not take part in the process of socialization, *"This was another problem with my mentor because she wasn't contributing to the socialization process. I was trying my best myself"* (T3). Nevertheless, the teacher felt appreciated by colleagues and managed to build mutually trusting relationships herself, *"In my case, I got very good colleagues"* (T3). Thus, even though the teacher was not supported by the mentor, the well-being of the teacher was not damaged, the relationships with colleagues played an important role for the respondent, she valued them and was able to maintain. However, the extent of mentoring influence to the well-being, in this case, is considered to be null.

The following well-being factor **"autonomy"** is revealed through being self-determined and independent, being able to think and act in certain ways, following personal standards. However, the scores for this well-being dimension are low for some novice teachers. Indeed, starting work at a new place is difficult, a certain time is needed to adapt to the school environment, learn how to deal with the everyday issues and how to fulfil one's duties effectively. Teacher 2 shared the story of becoming an independent and autonomous teacher only after she was deprived of constant mentor's support and was left alone. At the beginning, the teacher was helpless and entirely reliant on her mentor's evaluation and judgements *"I was asking her everything because I didn't know anything. What to do when a kid cries, what to do when kids scream? And if she wasn't at my lesson, she wasn't there, I was calling her after"* (T2). As the period of having a mentor lasted for one year, Teacher 2 became rather dependent on her mentor's assistance, as she clearly put it *"I already had a habit to work with her to discuss everything with her"* (T2). Only at the end of this year, the teacher managed to go her own way, start acting independently and do everything by herself, *"And at the end, maybe, it was good for me to start thinking by myself than always to expect help from her"* (T2). Autonomy demonstrated to a great extent was to Teacher 6 and all international teachers as they all had international experience, they managed to organize their work in the classroom and be confident about their teaching from the very beginning. Nevertheless, mentoring influenced the progress of their autonomy even further, as they learned new ways of teaching and instructing students, developing personal standards and becoming able to think and act differently. *"My self-confidence in a classroom improved something else. There were classes that improved a lot, helped me to become a very confident person in speaking in front of others, in front of that small groups we had and she [the mentor] helped to become more confident in what way.....she explained me a lot of details in the work of a teacher in England... when I came from England, I started to work in a Latvian school, and some teachers here would suggest this type of methodology, and I knew that there is another way and it worked. English type"* (T6). The influence of mentoring might be measured to a great extent in this case.

Another well-being factor **"environmental mastery"** is managing the environment, control of the situation and effective use of surrounding opportunities. The above-mentioned difficulties with lesson preparation, work organization, classroom management and discipline issues experienced by the novice teachers are closely connected with this aspect of teachers' well-being. It is obvious that the inability to deal with these issues negatively influences teachers' well-being, for example, *"I was freaking out then, I'm still freaking out now. And*



the only thing that would happen was just “You’ll be fine. It will pass, do not bother.” I can do that too, so, no” (T4). The teacher was not helped how to overcome stress and to deal with it by mentor’s advice at all. It is evident that stress destroys teacher’s health and leads to dissatisfaction with everyday work “It’s difficult to keep up with being healthy when you are constantly stressed out about the things happening at school. And I know, and this accumulates, and I just collapse at some point. And this is not right” (T4). These findings indicate that the teacher has a low score for “environmental mastery”, as she feels unable to control the external world and it negatively influences her well-being. What is more, mentoring did not improve her psychological stance in this respect. Opposite case is Teacher 5 who admitted that her mentor influenced her greatly teaching how to be confident in one’s job, mastery and competence, saying that “She gave me this confidence that I should not be stressed about each lesson, because, as she told me that, there is no perfect lesson, and that sometimes some lesson will really be very good and so will be like so-so and she told that it also depends on students’ mood and different other aspects” (T5).

As to “**purpose in life**” the majority of the respondents might be given a high score for this dimension, as 14 of them believed that teaching was their goal for life, it would bring them happiness and success in the future. For example, “I like a teacher’s job. It’s mine for 100 percent” (T13) “I have found here all that I have been looking for. And I like my work” (T8) “I love my work. And happiness is to do what you like. Then it will bring you income, happiness, joy” (T1) and “I really like to work; really like that creativity you can do during your teaching”(T12) “It is really like to work in a dream” (T2) and “I will stay in the profession for sure. I do not want to do anything else” (T9) “This what I do well, I like and enjoy doing” (T7). Furthermore, the teacher pays tributes to her mentor, “Now looking back, I understand that my work was not perfect at all, but she never said that. Moreover, she knew that saying the work had been perfect, and she would make me do it really perfect in 3 years” (T1). Teacher 2 also emphasizes the influence of her mentor on the choice to continue teaching “So, of course, my mentor was a person, who gave me start and motivation to work more as a teacher and that wish to be a teacher... If I hadn’t had a mentor, I wouldn’t continue working” (T2).

Moreover, five teachers have also admitted the important role of their mentors in making choice to continue to be a teacher “I saw that my mentor really liked her job and she told that she comes to school with joy and she likes all her students, and this really influenced me” to keep working at school (T15) and “The first experience is very important. It influences your whole life, and you decide whether to continue it or not. So, most probably, as you know, I am a teacher now, and she did. She did a lot” (T10). Only the responses of two respondents did not share the idea that it was their mentor who influenced them in the choice of future career.

All teachers might be named high scorers at “**personal growth**” dimension because all of them admitted their improvements in self, sense of realizing one’s potential and enhancement of knowledge, skills and effectiveness. For instance, “I had a lot of mistakes at the beginning, but now I can change that... Although I must confess that now I have grown in a professional sense and I do not need that frequent support as before.” (T1), “I became more confident as a person. Now I’m not that shy to say something in front of the others, as it was before. The teacher’s professional instincts” (T3) or “Because I am a worker, I like working, I really like. I know that I can be efficient, I like to learn new things... I experimented a lot” (T4) and “I think I was learning from my experience and from kids, like what worked well, what did not work” (T7).

Regarding mentors’ involvement in promoting teachers’ personal growth, 13 teachers admitted it to be high. As Teacher 12 commented, “And my adviser supported me in making my work perfect... So, she reaped a grain and motivated me to progress. And now I can analyse and evaluate that. And I am still interested in growing” (T12). Three more teachers basically repeated each other words, saying that “I’m sure for 100 percent that she helped me to become a teacher” (T2) and “Yes, mentoring helped me to become a better teacher” (T3) and “Definitely I became a better person, a better teacher, in my opinion” (T6) due to having a mentor. In the case of Teacher 5, the mentor greatly influenced her seeing herself as growing and expanding as the teacher plans to develop and



become a mentor *“It’s really very important to have such a mentor because I had a mentor and I would like to be a mentor myself”* (T5).

To sum up the evidence of the described experiences of having a mentor and the extent of its influence on the novice teachers’ well-being, mentoring has a notable effect on novice teachers’ well-being, significantly influencing “personal growth”, “purpose in life”, “environmental mastery” and “positive relations with others” for the majority of the participants. Furthermore, the mentors’ support influences teachers’ “self-acceptance” to some extent. While some negative outcomes are observed in the mentors’ involvement to develop teachers’ “autonomy”. The longer the period of having a mentor, the more dependent novice teachers are. Thus, the teachers who had a mentor for one year, demonstrated low autonomy, whereas those who had a mentor for a shorter time managed to become independent and self-determined teachers quicker. As concerns teachers with international experience, their autonomy improved significantly and reached a high level. Besides, the discussed suggestions indicate that there were three main aspects of mentors’ support and work which were believed to influence novice teachers’ well-being substantially. So far, a mentor has to be a talented pedagogue, a friend and a supporter. Furthermore, the friendliness and caretaking should be kept in a right balance, so that a mentor is an expert in the teaching sphere, a supporter in a problematic situation, but is not a patronizing minder or strict and authoritative supervisor. The attitude of a mentor should be respectful, considerate and polite. The critique of a mentee’s work should be given in a constructive manner. Moreover, a mentor should be available to novice teachers any time and not overloaded with teaching responsibilities or worrying about other school issues while novice teachers are searching for help. Finally, the longer the mentor’s support might be provided, the better novice teachers might feel.

Basing on the above-discussed findings, certain recommendations to promote novice teachers’ well-being have been elaborated.

Results, Conclusions and Recommendations

The aim of the research was to explore mentoring as a means of fostering and sustaining novice teachers’ well-being at the beginning of their teaching career. It was presumed that mentoring might influence novice teachers’ well-being positively, although the extent of its impact was questionable. Hence, three research questions were formulated to provide specific information about mentors’ assistance, namely, what novice teachers’ needs were and what mentors should do to meet these needs, what problems novice teachers experienced that could be resolved through mentor’s support and if mentoring could relate to novice teachers’ well-being.

The findings of the research for the first research question indicated that novice teachers needed to be introduced to the school environment, be supported and appreciated by colleagues and school administration, be informed about local rules, routines and be provided preparatory courses about the most frequently encountered issues concerning students’ motivation, discipline and classroom management before starting their career path at school. In addition, the findings for the second research question revealed that other difficulties experienced by novice teachers were related to teaching methodology, organization of documentation, administrative and organizational work, work and cooperation with parents, negative relationships with colleagues, lack of support as well as excessive workload and extra duties. Furthermore, it was discovered that mentors’ assistance could be relevant to solve difficult pedagogical cases, plan and organize lessons, improve class teacher’s work, enhance work and cooperation with parents and maintain positive relations with colleagues.

As concerns the answers for the third research question, it was found that the experience of having a mentor was positively evaluated by all the participants. Regarding the impact of mentoring on novice teachers’ well-being, the data obtained revealed that mentoring had a notable effect on four well-being dimensions from Ryff’s (1995) scale, namely, “personal growth”, “purpose in life”, “environmental mastery” and “positive relations with



others". Whereas "self-acceptance" was positively promoted only to some extent, and "autonomy" was negatively influenced for participants having a mentor for a longer period (Moldovana, 2019).

The research findings provide a deeper insight into novice teachers' emotional stance, lead to recommendations and possible solutions to keep positive well-being of young specialists and contribute to the improvement of the situation in the future.

Based on the data obtained in the research framework, the following recommendations for maintaining novice teachers' well-being are put forward:

Recommendations for Mentors

1. Consider your workload so that you are accessible for novice teachers as frequently as possible.
2. Develop positive relationships with mentees, treat them equally and refer to them as colleagues in a respectful manner, be polite, sociable and friendly.
3. Be open to novice teachers' ideas and suggestions. Let them experiment, find and develop their teaching style.
4. Remember to promote novice teachers' autonomy, allowing teachers to plan and conduct lessons on their own, to deal with the problematic issues and to contact parents and students individually. Make novice teachers realize their teaching independently when the time to become autonomous has come.
5. Be diplomatic giving feedback to your mentees. You should avoid strict negative commentaries, interrupting a lesson, pointing to mistakes and criticizing in an authoritarian manner. Instead, offer to try an alternative approach, suggest completing another kind of a task or discuss the content and organization of the lesson, asking novice teachers' opinion.
6. Introduce novice teachers to school staff and administration, inform about school culture, traditions, rules and environment. Create a positive image of the novice teacher and make a newcomer feel welcome and appreciated.
7. Organize other teachers' lesson observation and demonstrate your teaching skills as well.
8. Support novice teachers in all difficult cases, share your strategies and techniques to overcome everyday issues, to deal with stress, to plan and conduct lessons, to organize class teacher's work and to acquire teaching skills.
9. Encourage novice teachers to develop, teach them not to focus on failures, but praise and motivate to go on working. Show novice teachers that you believe in their progress and success in the future.

Recommendations for Novice Teachers

1. Be aware of the first-year difficulties and hassles, learn about the fluctuation and instability of the feelings, emotions and well-being during the beginning period of work, its coming to the lowest mark at the end of the 1st semester and rising at the end of the school year. Be ready for a longer time needed at first for the basic actions and everyday routines, which will become more automatic and less time-consuming after you will have learned them practically.
2. Get prepared for the most common issues of the starting period at school and attend preparatory courses focusing on discipline problems, class and stress management and strategies for students' motivation in advance.
3. Facing any difficulties at school, ask for help and assistance, seek a mentor and do not try to solve all your problems alone.
4. Keep positive relations with colleagues, school administration, students and parents.
5. Learn to be autonomous and independent, although do not hesitate to consult an experienced professional in any complicated situation.
6. Focus on your achievements, progress and professional growth, do not allow everyday burden to suppress your motivation and inspiration to become a professional teacher.



7. Participate in the activities organized at school.
8. Look for support from peers and teacher education institutions.
9. Join professional networks to exchange experience and gain information necessary for professional development.

References

- Aelterman, A., Engels, N., Petegem, K., Verhaege, J. P. (2007). The Well-Being of Teachers in Flanders: The Importance of a Supportive School Culture. *Educational Studies*. 33, 285-298. [online]. Available at <https://doi.org/10.1080/03055690701423085> [Accessed 10 September 2019].
- Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. 4th ed. Boston: Pearson Education.
- Dicke, T., Elling, J., Schmeck, A., and Leutner, D. (2015). Reducing Reality Shock: The Effects of Classroom Management Skills Training on Beginning Teachers. *Teaching and Teacher Education*. 48, 1–12. [online]. Available at <https://doi.org/10.1016/j.tate.2015.01.013> [Accessed 10 August 2019].
- European Commission (2010). *Developing Coherent and System-Wide Induction Programmes for Beginning Teachers: A Handbook for Policymakers*. [pdf]. [online]. Available at http://ec.europa.eu/dgs/education_culture/repository/education/policy/school/doc/handbook0410_en.pdf. [Accessed 25 July 2019].
- Flores, M.A. (2006). Induction and Mentoring. Policy and Practice. // In: J.R. Dangel (ed.) *Research on Teacher Induction*. Teacher Education Yearbook XIV, 37-66. Lanham: Rowan and Littlefield Education.
- Fransson, G., and Gustafsson, Ch. (2008). *Newly Qualified Teachers in Northern Europe- Comparative Perspectives on Promoting Professional Development*. Teacher Education: Research Publications No.4. Gavle University Press.
- Fry, S. W. (2007). First-Year Teachers and Induction Support: Ups, Downs, and In-betweens. *The Qualitative Report*. 12(2), 216–237. [online]. Available at <http://nsuworks.nova.edu/tqr/vol12/iss2/6> [Accessed 1 September 2019].
- Grimsath, G., Nordvik, G. and Bergsvik, E. (2008). The Newly Qualified Teacher: a Leader and a Professional? A Norwegian Study. *Journal of In-service Education*. 34 (2), 219-236. [online]. Available at <https://doi.org/10.1080/13674580801950873> [Accessed 1 September 2019].
- Hellsten, L.M, Michelle, P., Prytula, M., and Ebanks, A. (2009). Teacher Induction: Exploring Beginning Teacher Mentorship. *Canadian Journal of Education*. 32 (4), 703- 733. [online]. Available at <https://eric.ed.gov/?id=EJ883521> [Accessed 10 September 2019].
- Helms-Lorenz, M., Slof, B., van de Grift, W. (2013). First Year Effects of Induction Arrangements on Beginning Teachers' Psychological Processes. *European Journal of Psychology of Education*. 28 (4), 1265-1287. [online]. Available at https://www.jstor.org/stable/23580908?seq=1#page_scan_tab_contents [Accessed 20 September 2019].
- Ingersoll, R.M., and Smith, T. M. (2003). The Wrong Solution to the Teacher Shortage. *Educational Leadership*. 60, 30-33. [online]. Available at https://repository.upenn.edu/cgi/viewcontent.cgi?referer=https://www.google.lv/&httpsredir=1&article=1126&context=gse_pubs [Accessed 1 September 2019].
- Jonson, K.F. (2008). *Being an Effective Mentor: How to Help Beginning Teachers Succeed*. 2nd ed. Sage Publications: Corwin Press.
- Kessels, Ch. (2010). *The Influence of Induction Programs on Beginning Teachers' Well-Being and Professional Development*. Netherlands: Leiden University Graduate School of Teaching. [online]. Available at: <http://www.voion.nl/downloads/4eaec176-5310-40d0-8bb0-e95ca72aaef3> [Accessed 1 December 2018].



- Langdridge, D. (2007). *Phenomenological Psychology Theory, Research, and Method*. England: Pearson Education Limited.
- Lavigne, A. L. (2014). Beginning Teachers Who Stay: Beliefs about Students. *Teaching and Teacher Education*. 39, 31–43. [online]. Available at: <https://doi.org/10.1016/j.tate.2013.12.002> [Accessed 1 December 2018].
- Michaelson, J., Mahony, S., Schifferes, J. (2012). *Measuring Well-Being: A Guide for Practitioners*. London: New Economics Foundation. [pdf]. [online]. Available at: https://b3cdn.net/nefoundation/7a378df45fafa612cc_a3m6i6g49.pdf [Accessed 21 September 2019].
- Mikelsone, I., and Odiņa, I. (2016). *Male Teachers' Well-Being in the Context of Professional Identity*. [pdf]. [online]. Available at: academia.edu/documents/52607084/ICLEL_2016_CONFERENCE_PROCEEDING_BOOK [Accessed 1 December 2018].
- Moldovana, D. (2019). *Mentoring to Maintain Novice Teachers' Well-being*. Master's paper. Riga: University of Latvia.
- O'Brien, J. and Christie, F. (2008). A Role for Universities in the Induction of Teachers? A Scottish Case Study. *Journal of In-service Education*. 34 (2), 147-163. [online]. Available at <https://doi.org/10.1080/13674580802003599> [Accessed 21 September 2019].
- Poom-Valickis, K. (2014). Novice Teachers' Professional Development During the Induction Year. *Procedia - Social and Behavioral Sciences*. 112, 764 – 774. [online]. Available at <https://doi.org/10.1016/j.sbspro.2014.01.1228> [Accessed 10 September 2019].
- Richter, D., Kunter, M., Lüdtke, O., Klusmann, U., Anders, Y., Baumert, J. (2013). How Different Mentoring Approaches Affect Beginning Teachers' Development in the First Years of Practice. *Teaching and Teacher Education*. 36, 166-177. [online]. Available at <https://doi.org/10.1016/j.tate.2013.07.012> [Accessed 14 September 2019].
- Ryff, C. (1995). Psychological Well-Being in Adult Life. *Current Directions in Psychological Science* Vol. 4, No. 4, 99 – 103. Available: http://www.jstor.org/stable/20182342?seq=2#page_scan_tab_contents
- Ryff, C., Keyes, C. (1995). The Structure of Psychological Well-being Revisited. *Journal of Personality and Social Psychology*, 69, 719–727.
- Schmidt, J., Klusmann, U., Lüdtke, O., Möller, J., Kunter, M. (2017). What Makes Good and Bad Days for Beginning Teachers? A Diary Study on Daily Uplifts and Hassles. *Contemporary Educational Psychology*. 48, 85–97. [online]. Available at <https://doi.org/10.1016/j.cedpsych.2016.09.004> [Accessed 1 December 2018].
- Thomas, L. and Beauchamp, C. (2011). Understanding New Teachers' Professional Identities Through Metaphor. *Teaching and Teacher Education*. 27, 762-769. [online]. Available at <https://doi.org/10.1016/j.tate.2010.12.007> [Accessed 1 December 2018].



Modern Challenges and Prospects of Educational Development in Azerbaijan

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Abstract

With the restoration of independence in the Republic of Azerbaijan, major reforms were carried out in all social and economic spheres in accordance with the new economic system and successful reforms are currently continued. One of such successful reforms is the development of science and education, which is the basis for the progress of the modern world.

The main objectives set forth in the State Strategy for the Development of Education in the Republic of Azerbaijan are the task of increasing the international competitiveness of the Republic of Azerbaijan by developing the human capital and creating the leading education system in the world. The implementation of these goals and objectives is directly related to the economic development of the country and its economic opportunities.

World Economic Forum classifies three stages of the economic development of countries:

The first stage: Factor-Driven Economies

The second stage: Efficiency-Driven Economies

The third stage: Innovation-Driven Economies

According to the last reports of the World Economic Forum, Azerbaijan falls in a group of countries that are transitioning from the first stage to the second stage, from factor-driven economies to the efficiency-driven economies. The formation of an efficiency-driven economy is directly related to the development of education, the formation of human capital. Expanding sources of financing and improving the structure of education play an important role in solving this problem.

At the modern stage of the economic development of our country, the limited distribution of funds allocated to finance education requires the identification of priorities in this area. These priorities should include the geographical location of educational institutions and the continuity of education in the economy. State funds, especially budgetary ones, play a significant role in investment in education. State financing of education is carried out at three levels: the central executive body, the regional executive power, and the local executive authorities. It would be interesting to encourage greater participation of the private sector in financing education. The implementation of training on the request of the private sector is one of the promising areas of education financing.

Keywords: Education strategy, Innovative education, Human capital, Knowledge economy

Introduction

A lot of serious reforms have been implemented and all the successful reforms are still currently underway according to the new economic system of all the spheres of socioeconomic life with the restoration of independence in the Republic of Azerbaijan. One of the direction of these successful reforms is to improve science and education, which form the basis for a progressive world, in a systematic and well-thought manner.

The education system which was formed during the Post Soviet period have sufficient disparity with the education system of the modern world and made the necessity of independent education concept of independent country.

The main objectives set forth in the State Strategy on the Development of Education in the Republic of Azerbaijan for increasing the international competitiveness by developing the human capital, necessary for modernization of the country and to create the leading educational system in the world. The realization of these goals and objectives is directly connected with the economic development level of the country and economic opportunities. (WWW president.az |articles| 9779)



World Economic Forum classifies three stages of the economic development of countries:

The first stage: Factor-Driven Economies

The second stage: Efficiency-Driven Economies

The third stage: Innovation-Driven Economies

The advantages of the investment to physical capital made the necessity of Factor Driven Economy. Of course, this cannot be a long-term process; at least, applied innovative technology requires the training of engineering and technical staff with technical knowledge. The educational institutions that train existing engineering and technical staff should meet modern requirements in this period.

In accordance with the last reports of the World Economic Forum, Azerbaijan has been concerned to a group of countries that are transitioning from the first stage to the second stage, from factor-driven economies to the efficiency-driven economies.

The formation of an efficiency-driven economy is directly connected to the development of education and the formation of human capital. Expanding financial sources of education and improving its structure plays an important role in solving this challenge raised.

Method

The research was carried out on the basis of research methods such as scientific abstraction and systematic analysis, logical summarization, and statistical analysis.

Findings

Azerbaijan aimed at developing the oil industry, the locomotive of our economy for leading the country out of the condition of crisis as soon as it restored its independence. More than 70% of the main equipment of oil industry were outdated and the applied technology was incapable of reviving the oil production.

Bringing the new technology became possible by stimulating the arrival of the leading oil companies which in turn played an irreplaceable role in reviving the Azerbaijani economy during the first years of independence according to the international contracts. The foreign investment made in the oil industry of Azerbaijan in line with the international contracts in the first years of our independence has been spent as the investment in the physical capital. After independence, the most fundamental part of about USD 250 billion investments for Azerbaijani economy has been made in physical capital. The dominance of physical capital investment is the feature of the Factor-Driven Economies which is the first stage of economic development of the countries.

Prioritizing the investment in the physical capital for a long time may not meet the expectations. The investment in the physical capital substantially depends on the global market price of the product that was produced with the same equipment and technology. Slump of price in world market of these products turns into the indication of inefficiency of investing in physical capital.

Therefore, taking into account all aspects of education, serious structural reforms are carried out in the education system. One of them is to train personnel according to the requirements of real sector. Financing the education system is crucial to ensuring economic growth within a country's economic development.

The first stage of the development of the economy of Azerbaijan is characterized as factor-driven economics as well as in some countries of the world. According to the World Economic Forum's classification of stages of



economic development, the economy of Azerbaijan is characterized by the transition from the first stage of development to the 2nd stage of development from factor-driven economies to the efficiency-driven economies. Investment in human capital is more promising than physical capital. Ultimately, investment in human capital over the physical capital has been reflected in the State Strategy for the Development of Education in the Republic of Azerbaijan and the Strategic Road Map of the Republic of Azerbaijan for the National Economy Perspective.

At the modern stage of the economic development of our country, the limited distribution of funds allocated to finance education requires the identification of priorities in this area. These priorities should include the geographical location of educational institutions and the continuity of education as a whole. The state budgetary funds play a significant role in investment in education. State financing of education is carried out at three levels: the central executive body, the regional executive power, and the local executive authorities.

Four state programs were adopted in our country for acceleration of the socio-economic development of regions (three state programs for 2004–2008, 2009–2013, 2014–2018, all three state programs were implemented and the fourth state program for 2019–2023). In these programs, along with the development of production and service zones in the regions, social infrastructure, including education, was also in the spotlight.

As the country's economy develops, major changes are expected due to funding from the state budget compared to the other financial sources mentioned above. The private sector plays important role in financing education. It is true that these private schools cover all levels of education. Private pre-school institutions, private secondary and higher education institutions are also active. However, the number of students in private pre-school and secondary schools is about 0.2% of the total number of students in the country. Private training courses are also sources of education funding. These courses cover a fairly large number of students (over 100,000) and teachers (over 3,000).

One of the most important problems in the development of education is the problem of the living standard of teachers. This problem remains at the center of attention as the economy of Azerbaijan is developing. Thus, the average monthly salary of secondary education employees is higher than the average monthly salary in the country, and it is two times higher in universities.

Although more than 83% of GDP is produced in the private sector, the participation of the private sector in financing the education system does not correspond to this proportion. The private sector is involved in financing education, mainly in the form of taxes paid to the public sector. The direct participation of the private sector in financing education in developed countries is predominantly higher than through the state budget. In perspective, the development of relations between the private sector and universities at the level of the requirements of the time, the direct participation of private enterprises in the financing of universities, the orderly training of personnel and the implementation of research projects can be crucial for solving these problems.

One of the sources of human capital development is production and service facilities. I consider that in the conditions of rapidly developing scientific and technological progress, a corporation should always be in the focus of attention for the retraining of engineers and technicians in accordance with changing conditions in order to increase their competitiveness. Business competitiveness largely depends on the training and retraining of employees. The current rapid development of technical and technological progress has further strengthened the periodic retraining of engineers and technicians.

Other sources of investment in education are the financial resources of international financial institutions. The Republic of Azerbaijan should effectively use these resources for the development of human capital, the World Bank and United Nations trust funds.



Another source of investment in education is citizens. Thus, private donations to private educational institutions, covering private donations, donations and all levels of education, play an important role in shaping and developing human capital.

Developed countries were able to move from a commodity economy, characterized as the first stage of economic development, to an innovation-oriented economy with the achievement of human capital development. Nowadays, human capital continues to be an incentive for strong development, which can improve the development of the United States and leading European countries based on the theory of human capital and achieve their competitive national economy. Human capital in the national wealth of developed countries has a very large share. According to international financial institutions, the national human capital of developed countries is more than 70-80% of their national wealth. Developed countries invest more than 2.5-3 times in the development of human capital from state budgets compared to other developing countries. All this shows that at the present stage of economic development, the decisive role of society in the development of the economy is played by human capital, which represents not only natural resources, industrial capital and labor, physical capital, but also highly productive, intellectual and creative labor.

The role of donor funds operating in universities around the world in the field of education, science and scientific and technical inventions is irreplaceable. Donor funds constitute an important part of investors operating in the financial market. In recent years, donations have been known to have managed assets worth 9.6 trillion euros worldwide, along with pension funds. Harvard University has 30 billion euros, 21 billion at Stanford University. 11 billion euros in the University of California and donations of 10 billion euros at the Massachusetts Institute of Technology (Pension and Investment)

Parameters that are directly dependent on the quality of education should be consistent in improving the efficiency and effectiveness of investments. Although almost 7% of the smallest part of secondary schools are located in Baku (about 300 from 4500 schools), most of the investment in education is in schools in Baku. The role of the Heydar Aliyev Foundation is invaluable in shaping and updating the entire educational infrastructure.

As mentioned earlier, the formation of the educational infrastructure, which is one of the main tasks of the state programs on the socio-economic development of the adopted regions, is being successfully implemented. Over 80% of secondary schools have been repaired and rebuilt. ICT capabilities are widely used in all educational institutions.

Results, Conclusions and Recommendations

The formation and development of human capital is largely dependent on the system of higher education. Updating educational content in educational institutions, training in new specialties and improving infrastructure can have a decisive influence on the formation of human capital. The state strategy for the development of education in the Republic of Azerbaijan requires substantial funding in all respects. One of the main measures for improving the quality of education is to update the content of education, update textbooks, textbooks, teaching support materials and retraining of teachers.

Updating the content of science, reflecting the real reality, is reflected in the command economic system, free from certain ideologies and revealing the efficiency of economic activities characteristic of leading countries. The integration of the Azerbaijani higher education system into the global higher education system should not be ignored. I believe that, focusing on higher education, we need to pay special attention to the experience of Azerbaijan State University of Economics (UNEC). The implementation of a number of other projects, such as a



technology park, a business incubator, a dual diploma, an interdisciplinary student, a teacher and a master, can be an example for business.

Putting in operation the scientifically, technically and technologically unanalogous semi-submersible drilling rig named after Heydar Aliyev in the recent days (May 18, 2017) is the mere example for the development of human capital in our country. 80% of the engineering and technical personnel who built this rig that weighs 26 tons with a value of 1 billion USD were the Azerbaijani citizens. It can conduct drilling at a 1000-meter depth of water (During the Soviet periods we could conduct drilling at a 150-200-meter depth of water) and in general 12000-meter depth.

Education plays a key role in the development of an independent Azerbaijan Republic. The number of educated professionals continues to grow among employees in economic sectors. Over the past 15 years, the economy of Azerbaijan has grown 3.2 times.

In the transition from the first stage of economic development to the 2nd stage, you can create favorable conditions for the transition to innovative development (stage 3), creating favorable conditions for the development of human capital. At the same time, it is possible to ensure the international competitiveness of the Republic of Azerbaijan with other aspects characterizing the sustainable development of human capital: the use of natural resources, an orientation towards investment, an orientation toward scientific and technological development, personal development and institutional changes.

References

- Innovation policy. A Guide for Developing Countries. 2010 The International Bank for Reconstruction and Development / The World Bank.
- Ilham Aliyev's Opening Speech in the meeting of the Cabinet of Ministers dedicated to the results of socio-economic development in the nine months of 2018 and future objectives. October 9, 2018.
- Pensions & Investments – international paper on money management (<http://www.pionline.com/>) Source: State Statistical Committee of the Republic of Azerbaijan
- State Strategy for the Development of Education in the Republic of Azerbaijan. Baku 2013
- Strategic Roadmap for the National Economy Perspective of the Republic of Azerbaijan. Baku 2016
- Statistical indicators of Azerbaijan. Statistical Committee of the Republic of Azerbaijan. Baku 2017
- [www.president.az |articles| 9779](http://www.president.az/articles/9779)
- The Global Competitiveness Report 2018. World Economic Forum 2018
- UNESCO education strategy 2014-2021
- World Bank Education Sector Strategy 2020.



The Use of Functional Opportunities of Virtual Folklore in Lifelong Learning and Its Psychological Aspects

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Abstract

One of the most important conditions for the education to be targeted to the requirements of modern times, as well as to be suitable for social orders, is determining the effective training technologies. Many socio-cultural institutions, including the training models of the traditional-cultural institutions and the traditional models of knowledge transfer can be urgent and effective in determining the effective learning technologies. In this sense, folklore has a great potential of use in the application of modern educational technologies with its own functional capabilities that played an important role during many centuries in the interaction of some individuals with one another, in the socialization of people and in the self-formation of society. It is known that in the traditional-cultural environment there were institutional aspects and structures of knowledge transfer. Before the appearance of the written language in the oral communication level the information, i.e. the gained experience and knowledge were passed with the empiric models from generation to generation by old people, wise elders who were the institutional aspects of the traditional culture.

The training technologies of the traditional culture have the following peculiarities:

1. Unlike the religious training technologies it is not dogmatic, it has a democratic nature;
2. Taking into consideration the vital situations it has an operative adaptation character;
3. It has a character of getting and transferring the knowledge empirically;
4. It has the ability of taking into consideration the individual abilities and character in the process of incessant learning and teaching.

The appearance of the Internet which is considered the “apogee” of communication has caused the formation of new transformations of traditional folk culture, virtual folklore samples as in all other spheres. Of course, in modern times at the stage when the digital resources are growing, the methods and means of getting, transferring and mastering knowledge, as a whole, the formation of education has completely changed. That is why, we consider that it is possible to use the opportunities of folklore, in particular, the potential of virtual folklore and digital folklore resources, in the of lifelong education and innovative educational concepts, in getting and teaching of knowledge. Because the folklore resources have unique opportunities in formation of socio-psychological essence of personality. There is a great need for the individual to adopt the folklore of this group in order to freely enter and become a member of various social groups without experiencing psychological complex and tension in all spheres of society. In this sense, one of the goals of modern education is to aim the growing new generations to promote stereotypes that are in harmony with human values and to free them from non-humanist and local stereotypes.

Key words: Virtual folklore, Functional and Psychological aspects

Introduction

The establishment of the knowledge society in the modern conditions depends directly on the being trained of the highly qualified human race. In this case the education in modern societies is considered the social institution



with the strategic importance. One of the most important conditions for the education to be targeted to the requirements of modern times, as well as to be suitable for social orders, is determining the effective training technologies and to get the lifelong learning. With the condition of the life education many socio-cultural institutions, including the training models of the traditional-cultural institutions and the traditional models of knowledge transfer can be urgent and effective in determining the effective learning technologies. In this sense, folklore has a great potential of use in the application of modern educational technologies with its own functional capabilities that played an important role during many centuries in the interaction of some individuals with one another, in the socialization of people and in the self-formation of society.

It is known that the need for any knowledge and experience on various issues acts as a natural condition of life activity of the individual or society taken separately. The transfer of knowledge and experience gained by people at all stages of social progress from the generation to generation has become an important condition of the sustainable development of mankind. During ancient times in the traditional societies in the absence of writing the only means of transmission of knowledge and experience was folklore. The protection of the collected knowledge and experience in time and space was possible only through folklore and its effective methods. That is why from the functional point of view, among the numerous pragmatic functions of folklore its training function occupies an important place. Among the folklore examples of any nation the invitation to knowledge and investigation, propaganda and encourage, culturing knowledge, making the persons sacred who are carriers of knowledge and experience take an important place (Poyraz & Titrek, 2013: 115-131). For example, in the epos “The Book of Dede Gorgud” the sacred status of the character Dede Gorgud is arranged with the following arguments: “Oghuzun ol kishisi tamam bilijisi idi” (“He was wise in Oghuz”) (Hajiyev, 2004: 19). Or let’s look through the following proverbs:

“Not knowing is not a shame, not asking is a shame”, “Better to do well than to say well” (Zeynalli, 2012: 82).

Method

In the article the usage of the functional capabilities of virtual folklore in lifelong learning and in order to determine its psychological aspects the modern educational processes have been compared with the transfer of knowledge and experience in traditional culture, the prospects of applying the potential opportunities of folk pedagogy to lifelong learning have been chosen as the main principle. In the research process the cultural, technological, psychoanalytic and social psychological approaches have been used.

Main text (findings)

It is known that that there were institutional aspects and structures of knowledge transfer in the traditional cultural environment. Before the formation of the writing at the stage of oral communication the information – the gained experience and knowledge were transmitted with the empiric models specially from the generation to generation by old people, wise elders, grandfathers and grandmothers who were institutional aspects of the traditional culture. The art of Ashug that widely spread among the Turkic peoples was the embodiment of the transmission of oral knowledge as a cultural institutional structure, that is to say in modern terms, the circulation of the training in the chain model of “teacher-student” (“master-apprentice”).

The functional training technologies of the traditional culture

The training technologies of the traditional culture have the following peculiarities:

1. *Unlike the religious training technologies they are not dogmatic, they have a democratic nature.*

Although the transmission of knowledge and experience in the oral cultural environment has the stable models based on the traditional nature, it has the ability of adapting the skills and abilities of individuals. For example, though the master- apprentice relations are chosen as the target of teaching folkloric units to the apprentices, the special attention is paid to the identification of individual parameters and specific characteristics of learners. It is no coincidence that being performers and creative the ashugs are divided into two groups. Looking through the



relations of masters and apprentices in the cultural system, it becomes clear that, in fact, this classification is carried out according to the individual abilities of the learning apprentices. In fact, the proverbs and sayings such as “It takes all sort to make a world”, “You should never take anything to a place where there is already plenty of it” (Zeynalli, 2012: 57), etc. point to the individuality. Thus, this reality arising from the logic and dictation of relations in real social life was determined in folklore with the paremical units.

2. Paying attention to the vital situations it has the property of operative adaptation.

As folklore is based on the real and virtual communication of interpersonal and inter-groups processes, according to the suitable life situations, it has a feature of flexible adaptation. The folkloric manifestation which is regarded as the text multi-variance due to the philological point, in fact, is an indicator of the flexible adaptation of folklore under the influence of the social life circumstances. This aspect has a very important role in the transfer of knowledge and experience in the traditional culture in order to make norm in the context of a particular group. As it is known, there are definite differences such as age, gender, profession, social relation, religion, ethnicity, etc. among individuals and groups that pass and accept knowledge in the folklore process. In such situations these different aspects act as barriers of the effective transfer of knowledge and experience. The elimination of these barriers in the folkloristic training technologies is possible only through the operative adaptation according to the vital situations. For example, the main function of children’s games is the practical perception of the orders and rules of reality. But from the observations it is seen that the variants of the same games for teenagers serve to formalize their imagination of sexual differentiation.

3. It has the property of getting and transferring knowledge (lore) by the empirical way.

The different social groups have not the established program for passing their folklore. In different situations of life, when it is needed, certain folklore units are passed from generation to generation by repetition. But the part of folklore related to professions and arts is realized on the basis of visual, obvious and performing qualities of the teaching and learning subjects.

4. It has the feature of continuous learning and teaching.

The lifelong education, which is one of the main educational disciplines of modern times, is closely related with the continuous transmission character of knowledge and experience belonging to the nature of folklore. Thus, the concept of accepting and transferring of knowledge in the continuous form also exists in the culture. As it is mentioned in one of Azerbaijani proverbs “It is never too late to learn” is also one of the invitations to the lifelong education.

View to the conception of lifelong learning from folklore

In modern times telling “the lifelong learning” all types of lifelong learning (Decree of the Cabinet of Ministers of Azerbaijan Republic about to affirm “National Qualification Frame on the lifelong learning of Azerbaijan Republic) such as “knowledge, skills, competence or qualifications resulting in improvement of lifelong learning” is meant. The basic competences on lifelong learning reflect the multifunctional system that “unites each individual with such characteristics as knowledge, skills, value, approach, ideas and characteristic necessary for individual development, integration into society and engagement. These competences must be acquired in the comprehensive manner at the end of the compulsory education or training in all subjects taught to the educator and play the main role for future education as a part of the lifelong learning process” (Decree of the Cabinet of Ministers of Azerbaijan Republic about to affirm “National Qualification Frame on the lifelong learning of Azerbaijan Republic).

If we approach folklore from the lifelong learning paradigm, which is the main paradigm of modern education, we can see that training of the necessary competences for the different social groups and different individuals is one of the main pragmatic functions of folklore. Mastering the necessary knowledge and experience in various



spheres of social life to people through the effective methods at all stages of life forms the analogy with the need of competences in the present conditions. Changing the age groups the human's social status in the society changes in the parallel form. But each new social status requires the new knowledge and skills, new competences than the previous ones. This process attains actuality continually. In this sense, the folkloric communication is a lifelong exchange of knowledge and experience in all cases and it has the ability to cover the entire social circle not depending on the age group.

A look at the concept of lifelong learning from the folklore aspect requires looking through the age difference among the social groups that learn and teach at the same time. From this point of view, it would be better to get acquainted with the conceptual view by American cultural anthropologist Margaret Mead which is widely used in cultural and anthropological studies on the transfer of experience from generation to generation in culture. Margaret Mead divides cultures into three groups in terms of transfer of experience:

1. *Postfigurative culture* – the knowledge and practice are adopted from the old generation;
2. *Configurative culture* - the knowledge and practice are adopted from the old generation, as well as from the same age;
3. *Prefigurative culture* - the knowledge and practice are also adopted from the juniors (Maprapet)

The scientist makes such a conclusion that the orientation of the social progress of humanity is directed to the past in the first stage, but in the second stage it is directed to the present and in the third stage it is directed to the future. The author mentions that postfigurativeness is a feature directly belonging to the traditional societies. (Maprapet).

As it is mentioned in above not depending on any historical stage the process of the process of folklorization is carried out with the transfer of widely gained experience from generation to generation. The tradition realizes the relationship between the past and the future through the mechanisms of transfer of experience between the older generation and the younger generation. Our aim is to draw attention to the fact that the model of the dissemination of experience in the culture defined through its categorical concepts expresses exactly the folklorization itself. It is no coincidence that there is a rich experience of the usage of folk pedagogy in the educational process in most peoples of the world (Marina and Žana, 2016: 41-52).

So, looking at folklore from the lifelong education paradigm it becomes clear that folklore, which has been adopted as understanding and expressing the world from a young age, plays an important role as a social-cultural mechanism in the mastering and exchange of new knowledge and experiences in next stages. If we consider that one of the main goals of lifelong learning is to gain relevant knowledge and skills, competences and abilities in the updated social conditions, then it is possible to use folklore in the teaching methods of lifelong learning. Because the folklore performance based on the mutual communication and attitude of teachers and learners is one of the most important conditions for mastering knowledge (Morgan-Fleming, 1999: 285).

The role of digital folklore resources in lifelong learning paradigm

After the second half of the 20th century, the rapid development of ICT (Information-communication technologies), the emergence of the Internet which is considered the “apogee” of communication (Krawczyk-Wasilewska, 2016: 23) has led to the formation of new transformations of traditional folk culture, examples of virtual folklore as in all other spheres. Of course, in modern times when the digital resources are growing, the methods and means of getting, transferring and mastering knowledge, as a whole, the nature of education has changed completely. Especially in the context of the wide spread of digital communication, the emergence of the virtual world, the new generation of modern man is one of the problems that take place in the programs of a number of international organizations around the world. From this point of view, we consider that it is possible to use the opportunities of folklore, in particular, the potential of virtual folklore, digital folklore resources, in the



implementation of modern training methods and innovative educational concepts in the getting and teaching of knowledge. In the modern era of quickening the processes of globalization and transformation the man is a member of virtual social groups along with a network of real social relations. In particular, the emergence of digital means of communication and the formation of mobile platforms of social networks have led people to spend almost the entire day online. From getting the information, news till the most fundamental scientific researches, or from the smallest domestic affairs to the most global and strategic issues, the activity is directly connected with the Internet. In general, the fact that communication is based on virtual platforms has led to the emergence of a new space for spiritual culture – folklore activity as in all spheres. “The communities of users coming together in virtual interaction platforms under the guidance of motivations such as proximity, need for socialization, regular and instant interaction, the common interests and experiences, contain many qualities of a folkloric group and new, rich and original folkloric groups that are not equivalent in real life and the ability to produce content” (Gülüm, 2018: 132). From the ancient times to the present day, folklore as the main means of differentiation of human reality in the form of conception and expression, social organization and formation, division into groups and ideologies in today’s conditions – the rapid expansion of the Internet, the domination of virtual communication, etc. equally, new forms and formats are emerging in content and themes.

In such circumstances, it is very urgent and important to use new opportunities and tools for the education of the person, the sectors related to his or her most diverse fields of activity, especially the teaching of knowledge and skills, skills and abilities. From this point of view, it is difficult to imagine the concept of lifelong learning, the new paradigm of modern education, beyond virtual and digital resources, as well as Internet folklore and digital culture. To tell truth, it is possible to use a wide range of virtual folklore resources in the application of the lifelong learning concept. It is possible to make effective use of the virtual folklore resources available in social networks and forums in realizing the implementation of knowledge and information provision of subjects participating in continuous education or lifelong learning process with humanitarian and social tendentious knowledge. Thus, unlike the traditional folklore facts, the examples appeared in the virtual environment are seen on the base of the non-conservative, free attitude to tradition. The virtual folklore samples offer the new alternatives to traditional, normalized and stereotyped approaches and views. The parodical attitude to images and values protected by the national stereotypes creates emotional sensitivity and it creates the favorable conditions for transmission or reception of the certain information. In other words, the parodical attitude to the stereotypes at the same time creates the effective psychological situation for the transfer of knowledge. If we apply to the Turkish experience, we shall see that “The Examination of License Replacing in Internet (LYS) and Public Personal Examination (KPSS) followed by students preparing practical knowledge about the topics of Turkish literature, lesson notes sharing pages are available. In some of these sites the information about the literary personalities, their works and the knowledge about the classical Turkish literature are usually given through “gaps” or in a humorous language. The parodical profiles made up of fake user profiles created on various websites for famous poets and writers are also one of the examples that represent social media humor. In the profiles created for poets of classical Turkish literature and Turkish folk literature give information about their lives, literary personalities and works in a humorous style in the form of ridicule and the poem examples by the poets are shared” (Yilmaz and Berk, 2016: 177-189). As it is seen, the certain profiles (true and false) have been created by the persons preparing for various types of exams on Turkish-speaking sites and forums, through these profiles the electronic resources on various topics (from the current, daily cares to the most different fields of science) are created. A certain part of those electronic resources are folkloric examples in comic or parodical styles. In fact, those examples, which show themselves as a virtual environment of socio-cultural processes of modern times, as well as the emergence of folklore on the Internet, are integral parts of the virtual world of a modern man. Each Internet user or member of the social network is its creator, as well as its user within those processes. In other words, each of us is the founders and users of the virtual world, the virtual folklore which is part of it. In this regard, we can say that folklore resources created in social networks through fake profiles or fake user accounts (“fake profile” and “fake user account”) can be used for various purposes. It is possible to



apply the same experience in lifelong learning, to use the electronic resources available on the Internet on the most diverse topics and content.

The psychological aspects of the problem

Folklore resources have unique opportunities in formation of socio-psychological essence of personality. There is a great need for the individual to adopt the folklore of this group in order to freely enter and become a member of the various social groups without experiencing psychological complex and tension in all spheres of society. In this sense, one of the goals of modern education is the promotion of stereotypes (Hamer, 2000: 49) and to direct to freedom from the non-humankind and local stereotypes. The investigations prove that if the virtual folklore examples are used in the modern educational technologies effectively, it can greatly help people to move away from the local psychological stereotypes, to adopt universal values through education, and at the same time to form as a leader without experiencing widespread cultural shock and acculturation stress.

The man simultaneously operates in folklore groups with different levels. As the social responsibility of individuals expands, along with the quantity of their participation in separate groups, the serious changes are revealed in their quality. The social groups with their specific shades have ideas and concepts that support their ideologies, which play a decisive role in the views of the people of that group on life, the establishment of relations with other members of society, the determination of their reactions to various social events. The different social groups have different folkloric units that support their idioculture (Fine, 2005: 69; Fine, 1979: 734), which both define and promote the emotional-expressive nature of these groups. In addition to increasing the number of groups in the Internet environment, which is a new stage of human socialization, the differences in their goals are constantly increasing. In the formation of the personality of the learner studying in such conditions, more complex factors arise, which formalize the “life training” of subjects in this or another degree, and without taking into account these factors, it is a very difficult task to achieve its goal. The complexity of the essence of education in all spheres of life requires a flexible, dynamic and sensitive attitude to it. It is no coincidence that although it is possible to identify the factors that affect the formation of subjects in the traditional culture, which belong to a certain territory and to struggle with the factors that affect them negatively, the emergence of global virtual environments for different purposes and the large number of individual negative effects are focused on the problem of personality formation. In the environment where such complex virtual environments affect the formation of human personality, the role of folklore in lifelong learning conception cannot be neglected.

Results

Thus, with the usage of the functional capabilities of virtual folklore in lifelong learning and its research on psychological aspects the following conclusions were drawn:

1. Many socio-cultural institutions, including traditional educational methods of cultural institutions (folklore), traditional models of the transfer of knowledge are active and effective in determining effective training technologies on the condition of lifelong learning, they have a great potential of use in the application of modern training technologies with their functional capabilities.
2. The following characteristics of the training technologies of the traditional culture have been identified:
 - *Unlike the religious training technologies, it is not dogmatic, it has a democratic nature;*
 - *Paying attention to the vital situations it has the feature of operative adaptation;*
 - *It has the property of getting and transferring knowledge by the empirical way.*
 - *It has the feature of continuous learning and teaching.*



3. Looking at folklore from the lifelong education paradigm it becomes clear that folklore, which has been adopted as understanding and expressing the world from a young age, plays an important role as a social-cultural mechanism in the mastering and exchange of new knowledge and experiences in next stages.

4. Unlike the traditional folklore facts, the examples appeared in the virtual environment are seen on the base of the non-conservative, free attitude to tradition, it is possible to make effective use of the virtual folklore resources available in social networks and forums in realizing the implementation of knowledge and information provision of subjects participating in continuous education or lifelong learning process with humanitarian and social tendentious knowledge.

5. There is a great need for the individual to adopt the folklore of this group in order to freely enter and become a member of the various social groups without experiencing psychological complex and tension in all spheres of society.

6. If the virtual folklore examples are used in the modern educational technologies effectively, it can greatly help people to move away from the local psychological stereotypes, to adopt universal values through education, and at the same time to form as a leader without experiencing widespread cultural shock and acculturation stress.

References

- Fine, Gary Alan (2005). In the company of men: female accommodation and the folk culture of male groups. *In Manly Traditions: The Folk Roots of American Masculinities*, Edited by Simon J. Bronner, 62-76. *Indiana University Press*.
- Fine, Gary Alan (1979). Small Group and Culture Creation: The Idioclature of League Baseball Teams. *American Sociological Review*, 44: 733-745.
- Gülüm, Erol (2018). Dijital iletişim teknolojileri aracılı bir folklorik deneyim alanı olarak sanal ortam. *Milli folklor* 119, s. 127-139
- Hajiyev, T (2004). *Kitabi-Dədə Qorqud. Əsil və sadələşdirilmiş mətnlər*. Bakı: Öndər, 376 s.
- Hamer, Lynne (2000) "Folklore in Schools and Multicultural Education: Toward Institutionalizing Noninstitutional Knowledge." *The Journal of American Folklore*, vol. 113, no. 447, pp. 44-69.
- Krawczyk-Wasilewska, Violetta (2016). *Folklore in the Digital Age: Collected Essays*. Foreword by Andy Ross. Lodz, Lodz University Press.
- Marina Ilić, Žana Bojović. (2016) Teachers' Folk Pedagogies. *Journal of Arts & Humanities*. Volume 05, Issue 09, 41-52
- Маргарет, Мид: постфигуративная, кофигуративная и префигуративная культуры. https://studme.org/128004154844/kulturologiya/mid_postfigurativnaya_kofigurativnaya_prefigurativnaya_kultury (14.07.2019)
- Morgan-Fleming, B. (1999). Teaching as Performance: Connections between Folklore and Education. *Curriculum Inquiry*, 29 (3), 273-291.
- Decree of the Cabinet of Ministers of Azerbaijan Republic about to affirm "National Qualification Frame on the lifelong learning of Azerbaijan Republic. "Azərbaycan Respublikasının ömürboyu təhsil üzrə Milli Kvalifikasiyalar Çərçivəsi"nin təsdiq edilməsi barədə Azərbaycan Respublikası Nazirlər Kabinetinin Qərarı. <http://e-qanun.az/framework/39622>
- Poyraz, Hande & Titrek, Osman (2013). Development of Lifelong Learning in Turkey. *Abant İzzet Baysal University Education Faculty Journal*. 13. pp. 115-131
- Yılmaz, Gökçehan, Yılmaz, Berk (2016). Sosyal Medyada "Caps"ler ve Parodi Hesaplarla Türk Edebiyatı: Klasik Türk Edebiyatı ve Türk Halk Edebiyatı Örneği. *Uluslararası genç akademisyenler kültür kongresi. Bildiriler kitabı*. İzmir s. 177-189.



Zeynallı, Hənəfi (2012). Azərbaycan atalar sözü. Bakı: Elm və təhsil, 174 s.



Lifelong Economic Education Based on Distance Learning Technologies

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Abstract

The purpose of lifelong education is the constant creative renewal, development and improvement of each individual throughout his life. By lifelong education, we understand not the mechanical movement of a person from pre-school to general secondary, professional or post-graduate education, but the harmonious process of cyclical renewal of personality at each of the indicated stages of development. At the present stage of development of scientific and technological progress, information technologies are coming to the fore. This study will address the problem of introducing innovative processes in lifelong education, namely the introduction of distance technologies into the system of lifelong economic education. Economic education, economic literacy of the population at the present stage are one of the sources of increasing the intellectual potential in the regional economy. Increasing competition in the labor market, the restructuring of the economy, the introduction of new technologies in production - all this contributes to stimulating self-employment, training and retraining by occupation, increasing the demand for training in the economic profile, the demand for economic knowledge. The transition to the market creates many problems in organizing the training of specialists at various levels. Continuous, but also regulated flow of well-trained and qualified personnel has always been and will be one of the most important, inalienable conditions for economic and industrial development. Industry and the economy in all countries have long recognized that vocational training is an investment in itself, since the quality and level of standards for products and services largely depends on the qualifications of the relevant personnel, on human resources that can be developed on a broad educational basis.

Keywords: Lifelong Education, Distance Learning, Economic Education, E-Learning, Teaching

Introduction

Modern humanity is at a turning point in the worldview, changing the basic values of technological civilization, the transformation of the scientific paradigm. Our society is undergoing significant changes associated with the revision of a number of scientific, political and social issues. They occur in all spheres of social life, affecting all public institutions, including the institute of education. In this connection, changes are taking place in the educational system, both initiated by the system itself and under the pressure of changes in other spheres. One of the components that make up the goal of education today is the improvement of a person's professional and spiritual qualities through his entry into the innovation value system, and his active involvement in the information culture. In modern conditions, when the amount of knowledge necessary for a person sharply and quickly increases, it is important to inculcate the ability to independently replenish their knowledge, to navigate the rapid flow of scientific and political information. This means that it is necessary to develop mechanisms for advanced training, the principles of its continuity and independence. The world education system is going through a transitional stage in its development and a radical change is taking place in many academic systems. Under these conditions, the need to establish a new education system that meets the requirements of the time is relevant for all states.

In the current socio-economic conditions, one of the tasks facing the education system is to provide high-quality and affordable education to wide sections of the population. The solution to this problem facilitates the distance form of education. Day by day in the world rapidly growing number of educational institutions are to varying degrees using distance learning. Lifelong education has always been considered as a priority issue arising at the present stage of technological development, and taking place in the world's political, socio-economic and cultural changes.



The introduction of new information technologies has led to increased attention to the development of distance learning. The experience of many countries of the world community shows that distance learning is an effective form of improving the quality of training specialists in education centers. Distance learning provides effective self-development for students. For the successful development of distance learning at the university, it is necessary to ensure appropriate organizational and pedagogical conditions. It significantly expands the number of students, provides them with the skills and motivation to improve their educational status throughout their lives. It is not by chance that many researchers express the opinion that distance learning in the near future may become the leading form of training specialists. In addition to improving the effectiveness of training, it will provide the learner with the necessary knowledge and practical skills to find and use the necessary information on the global Internet. Without such knowledge, it is difficult to imagine a competent professional not only in the near future, but even today.

The use of computer technology in distance education of students allows them to improve its cognitive processes. The introduction of distance education fundamentally changes the role of teacher-student positions. With the traditional form of education, the teacher acts as an interpreter of knowledge. With the growth of the educational space, the function of the interpretation of knowledge is assumed by the student, and the teacher is the coordinator of this knowledge. He consults students, guides the work of the student's cognitive processes, that is, assumes the functions of supporting the student's professional development. [1c.50–53] The study allowed us to represent certain conclusions, to develop the following recommendations and suggestions.

Having examined the history of the development of distance learning, we believe that the main premise for the development of a distance learning system is its integration capability. Nowadays, it is impossible to concentrate in every educational institution all world information means stored by mankind in the scientific and educational space. Consequently, it is necessary from every geographical point of the planet where the learning process is organized, to provide deleted access to information resources located in any other geographical spot. Distance learning makes information resources effective spreaded across different territories. This is the conceptual justification and ideology of the need to develop distance learning.

The immediacy of creating a distance learning system in Azerbaijan presently is caused by many factors. This is the recollection of scientific and technical centers in large cities, the formation of new needs of the population in relation to the maintenance, and technologies of education, the development of a market economy, the enlargement in migration of the population, etc.

However, there are problems in the development of distance learning in Azerbaijan:

- The level of computer literacy in the country leaves much to be desired;
- there are not enough people who have a computer connected to the global network at their disposition;
- teachers are used to traditional forms of education and yet are not ready for technologies of distant teaching of educational disciplines;
- distance learning requires a different organization of the educational process, other teaching ways than the traditional system;
- it takes time to teach the teaching staff how to use new educational technologies;

Distinguished problems in the distance learning system must be solved. Specifically:

- it is necessary to more clearly determine the features, principles and peculiarities that characterize precisely the distance learning;
- to characterize the didactic principles and methods of such training;
- it is necessary to determine the requirements for the content, forms, for the educational and methodological assistance of distance learning;
- set out the principles of organization and management of the educational process;
- develop the requirements for logistics;



- improve the regulatory basis;
- develop requirements for technology training in the Internet environment, requirements for telecommunications environment;
- certification of the institutes (universities) of distance education, virtual universities;
- should be taken into account - the fact that not all specialists in different specialties can be fully trained in distance technology.

Having researched the points of view of scientists in relation to the concept, “distance learning” and “distance education”, we believe that distance education is a complexly organized system, referable to a fairly new form of education, able to satisfy the educational needs of the population regardless of its spatial and temporal location regarding to educational institutions, including funds, the process and the result of educational standards carried out by a telecommunication technology teacher and student, which is performed in a specific educational environment, and distance learning is a new form of education in Azerbaijan, which at the moment exists along with other forms of education - full-time, part-time, external in the system of continuous education. Distance learning is a system and learning process in which the teacher and the student are at a distance from each other, and therefore rely on electronic means and printed manuals for organizing the educational process.

Distance learning as a component of the educational process is based on specific theoretical principles, practical experience and methodological principles. Thus, the addition of a distance learning system with the principles proposed by the creator and their precise and exact implementation guarantees the quality results of a distance learning system. It is necessary to continue the practice of conducting experiments in distance learning in order to study the factors determining the strengthening of the multivariate development of distance education in Azerbaijan while ensuring its high quality, as well as its association within the national and global educational process in a globalized market and international contest in this area.

Over the past decade, practice has shown that Azerbaijan has a powerful system of distance learning, especially in universities, where serious attention is paid to reforming the existing system of education. All educational institutions have a pronounced property of openness and personal touch in the process of organizing and conducting distance learning. The structure of the distance learning system at the educational institution level is centralized, consisting of the Distance Learning Center based on the leading university, the Distance Learning Faculty, the Distance Education Institute, the Distance Education Department and the remotely located educational and consulting centers. The distance learning process consists of variable contact and non-contact learning intervals. In all occasions, the last predominates in time, and the contact period may be absent altogether.

It is necessary to improve and reconsider the curriculum taking into account current and future requirements. Since promise is a fundamental principle in improving the system of distance learning. New interesting forms, methods and means of training will guarantee the most effective accomplishment of the goals set - the formation of professional and educational skills and abilities, the cluster of initial professional experience.

Improving the system of control and impulse in the process of distance learning is simply necessary. Control over the mastering of educational material should be carried out frequently (at least once a week). We believe that it is advisable to strengthen self-control using tests. The problem of distance identification of the student's personality is removed when using videophones and video conferencing. It is necessary to more thoroughly examine the psychological problems in the implementation of distance learning and the outcomes of their use in the educational process. In the system of distance education, moral and psychological preparation of students is very important.



Summarizing all the above, we can say that distance learning at the present stage of development of the economy, science and technology is relevant and timely. The distance learning system should not stand in one place. It is necessary to develop and improve it in diverse organizational areas, starting with the training system and ending with the ways of control and motivation.

Changes in the social environment are closely related to the change in technological trends at different stages: - Stage 1 - pre-industrial society in which there existed - human communication organization based on analog thinking; - Stage 2 - Information Society with a computer organization - communication based on digital thinking;- Stage 3 - a creative society with a social organization of communication; and - hybrid thinking. The modern society of the XXI century is at the stage of changing the technological paradigm. Information technologies, which determined the image and essence of the twentieth century, give way to technologies that open a new path of development - the economy, education, new society.

Changing the learning environment: the transition to a wireless network, the spread of smart terminals, the progression of remote devices, the expansion of SMART work (mobile office) is a new quality of society, in which the combination of using technical means, services and the Internet by trained people leads to qualitative changes in interaction subjects, allowing to obtain new effects - social, economic and other benefits for a better life.

The learning environment is the convergence of ICT and the Internet infrastructure (the fusion of on-line distribution of software and content in the form of multimedia). The structural part of the implementation of this idea is the introduction of e-learning into the system of professional development of teaching staff. The main reason for the relevance of the introduction of training is the need to improve the existing education system in accordance with the new requirements of the economy and society. The main direction of the introduction of training is the formation of information-communication and technological competence of educators in the electronic environment. With the introduction of e-learning, conditions will be created for the realization of the proclaimed UNESCO principle of education of the 21st century "education for all" and "education through life" - "Life Long Learning (LLL)". Electronic distance learning will increase the accessibility of educators education "always, everywhere and at any time", provide an opportunity to independently develop the trajectory of professional growth, equate the level of education of educators of urban and rural schools, open the way to the international educational space. The main goal of distance learning is to create an environment that provides a high level of competitive education by developing students' knowledge and skills of the 21st century modern society: cooperation, communication, social responsibility, ability to think critically, solve problems quickly and efficiently. In the course of the implementation of the above tasks for the institutes of advanced training of pedagogical personnel, the question arises of how to teach modern educators in the light of advanced training in an electronic environment with distance-based technologies. Distance learning is flexible learning, which implies a large number of sources, maximum variety of multimedia (audio, video, graphics), the ability to quickly and easily adjust to the level and needs of the listener using mobile devices. Distance learning should be easily managed in order to ensure educational organization flexibility of the educational process, and integrated with external sources. The need to develop an integrated intellectual educational environment is based on a sufficient degree of development.

We are obtained the following scientific and practical results: - as a result of studying the works of foreign authors on the problem of distance education, it was found out that at present there are many opinions about distance and electronic education, but there is no single accepted definition; - clarified the definition of distance education in this work; - the main tools of Internet marketing were highlighted, their main characteristics, as well as advantages and disadvantages were stated;



In this paper, we investigated the distance model as an innovative teaching method. The history and development of distance learning was reviewed, and earlier forms and various distance learning technologies, such as radio, television, interactive videos and the Internet, were studied. Synchronous and asynchronous teaching methods were also studied.

In the “State Strategy for the Development of Education in the Republic of Azerbaijan” Approved by the Decree of the President of the Republic of Azerbaijan on October 24, 2013, the development of education in education takes an important role. One of the important strategic directions envisages the creation of an educational infrastructure that meets modern requirements and ensures continuing education. This area covers such measures as the creation of an infrastructure in educational institutions, an appropriate teaching methodology based on information and communication technologies, streamlining the network of educational institutions, distance education, education and development for talented children and children in need of special care, education of the elderly, regional universal centers providing counseling services on vocational and educational issues, vocational training centers and complexes with modern software, the creation of campuses.

Method

Method of the research:

analysis and synthesis, comparative, deduction and induction

Results, Conclusions and Recommendations

Distance education with the development of modern technologies is becoming increasingly attractive for students, for representatives of universities, for the state and for society as a whole. At the same time, the desire of many institutions for interactivity and two-way contact of students with a teacher becomes noticeable. The rapid spread of new technologies in the near future is able to realize ideas that today seem unreal.

The weight of the state in the world is determined by the proportion of the use of information technology in the economy of the state. There is a need for a fundamental restructuring of the entire system of training and retraining of personnel in order to ensure its greater mobility, to address the issues of priority training. Vocational education and vocational training should be focused on the training of specialists who are able to ensure progress in the development of their industry. The rapid development of the modern labor market requires a new type of employee: versatile knowledge, excellent special training, an open, inquisitive world view, the ability to adapt to new situations, constant changes, knowledge of foreign languages, computers, new information technologies, and the willingness to develop knowledge to new situations - all this suggests that education should be focused on anticipatory specialist training, on lifelong education, on broad knowledge, on awareness second, that there will be a job for life. Lifelong education is a requirement of any company. The sooner a person has formed the ability of self-education, the more interesting it is for the employer. The loss of jobs, previously perceived as a tragedy, has become commonplace today. The labor market puts a person in a situation where he is forced to start anew each time, facing new demands. Thus, it is clear that the most important form of self-realization of the individual in the labor market is vocational education. A diploma itself is not sufficient, because it is not converted into wages in the labor market. Business is in great need of specialists, but it is important to have not only formal educational qualifications, such as a diploma, but also real skills, knowledge and skills that meet the standards of the labor market. In addition, a business career is associated with the willingness and ability to learn. Therefore, flexibility and mobility are the basic educational traits of the individual, giving her the opportunity to stay and advance in the labor market and that are most effectively developed on a broad educational basis. Therefore, intensive educational technologies are needed that would maximize the ability of self-learning. The sooner a person develops the ability of self-learning, the more interest he will present to companies in the labor market. Therefore, it is necessary to create new models of education related to real labor market standards, offering modern educational technologies that provide these standards. Only a flexible and mobile specialist, ready for continuous self-study, will have high competitiveness.



Such educational technology, providing a high level of development of the ability of self-study, are distance technologies in education.

References

- Qəribli E.A. (2015) Müasir bilik iqtisadiyyatının Alma Materiləri “Azərbaycan Dövlət universitetinin elmi xəbərləri”, 3-cü cild, Yanvar-Mart 2015 səh 79-87.
- Фетисова А.Д.(2015) Дистанционная форма обучения один из важнейших инструментов в сфере образования. Инновационное развитие – от Шумпетера до наших дней: экономика и образование. Статьи и доклады участников международной научно-практической конференции. М.: издательство «научный консультант», С.546-549
- Barbour, M., Archambault, L., DiPietro, M. (2013) K-12 Online Distance Education: Issues and Frameworks. American Journal of Distance Education 27 (1) , p. 2-4.
- Павлова Н.А., Николаев Б.В. (2016). Тенденции развития коммерческого высшего образования в США. Вестник научных конференций. № 9-2. С.88-92
- Полат Е.С., Моисеева М.В., Петров А.Е. (2006) Педагогические технологии дистанционного обучения: Учеб. пособие для студ. высш. пед. учебн. заведений; Под ред. Е.С. Полат. – М.: Академия. Стр 35-40
- Волкова Н. С.(2012). Анализ системы дополнительного профессионального образования России и его роль в современных условиях // Молодой ученый. — №5. — С. 412-415.
- Афанасенко И.Д. (2010). Системный кризис и интеллектуальная безопасность общества. Известия СПбУЭФ. № 4.
- Clegg, S.; Hudson, A.; Steel, J. (2003). The emperor’s new clothes: Globalisation and e-learning in higher ed Elliott, C. Using a personal response system in economics teaching. Int. Rev. Econ. Educ. 2003, 1, 80–84 education.
- Shachar, M., & Newmann, Y. (2003). Differences between traditional and distance education academic performances: A meta-analytic approach. The International Review of Research in Open and Distributed Learning, 4(2). Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/153/234>
- Rovai, A.P., Downey J.R. (2010) Why some distance education programs fail while others succeed in a global environment . Internet and Higher Education 13 (3) , p. 142-145.



Taxes on Income and Directions for Their Improvement

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Abstract

Specifying and advising on the elimination of such deficiencies in determining the income tax is also the purpose of this article. The ideal tax on personal income is the one that covers all incomes of individuals and provides the most equity. The fairness of taxation is ensured by the progressiveness of tax rates, reasonable deductions, and benefits for the poor, tax credits and holidays. Expanding the tax base will reduce the tax rates, which leads to a decrease in the tax burden. The collection of income tax at the source greatly facilitates tax administration, reduces opportunities for tax evasion and thereby increases the efficiency of the tax system. The concept of income has not yet acquired its full definition in economics. On the other hand, the uncertainty of the concept of justice also imposes its own nuances on the construction of the tax system. The multiplicity of deductions, benefits, exemptions and other regulatory levers complicates tax administration and reduces its effectiveness. The question of integrated taxation of incomes remains open.

Keywords: Income tax, Tax regulation, Tax policy.

Introduction

Questions of determining income are one of the long-lived topics of economics. The theoretical shortcomings of this concept are also a stumbling block in determining the object and tax base for personal income. In economic theory, several alternative versions of the definition of the concept of income have been proposed, but each of them has flaws that do not allow them to be accepted as a universal definition for various purposes. In practice, various indicators are used to determine the income of individuals. These indicators can be applied in the state regulation of social processes. But the lack of a universal definition of the concept of income is reflected in contradictions in relation to various aspects of income indicators.

Discussion

Income tax can be formed both on a global and on a local (independent) basis. In practice, in most global systems, elements of independent systems are used, and the principles of global systems are used in the construction of independent systems. Under the global system, the tax rate is applied to the sum of all types of income, and with an independent system, each type of income is subject to a separate type of tax. Global tax systems are common in developed countries, and an independent system is more common in developing countries. In some developing countries, global systems are adopted, but the methods of tax collection are independent, that is, income taxes are levied directly at the source of income and the bulk of taxpayers do not have to make income declarations.

Independent income tax systems have certain advantages: ease of application for underdeveloped tax administration (taxation at the source of income eliminates the need to fill out declarations, and thereby reduces the tax administration burden. If a country applies a preferential tax system to various types of income (income from capital, etc.), the advantages of independent taxation become more apparent. A differentiated approach to income taxation is an independent taxation system.

The advantage of the global tax system is that it allows to look at the taxpayer as a whole and provides for a more equitable levy. With a large number of taxpayers with different incomes, the global system acquires advantages in the area of tax administration. Each taxpayer fills in only one declaration.



In each system under consideration, the tax base of personal income does not fully comply with the concept of integrated income. In each system, the starting point is the “total income” indicator, which is determined by the tax laws of the country. But in spite of the fact that this indicator is called general, it corresponds in some parameters to both general and net income (Kalbiyev, 2005 and 2011; Seyfullayev, 2013a, 2013b).

It is known that in order to reduce the tax burden, some deductions are taken into account in the tax base of income. Exemption from tax of a certain part of the income (or type of income), the use of tax incentives and deferments are the main types of reducing the tax burden (Fisher, 1942; Kaldor, 2003).

When determining the tax base for income, a special place is occupied by the question of reducing the object of taxation by the amount of expenses of an individual. According to experts, in determining the tax base, accounting for such expenses of employees as non-collectively spent business expenses, charitable expenses, expenses for studies, contributions to social funds, interest on mortgage loans, expenses for health, payment of social taxes, losses from accidents could provide greater equity taxation.

The argument for deducting business expenses is that income should be taxed after deducting all expenses that are associated with the receipt of this income. And the arguments of the deduction of expenses for charity and for education, deductions for social funds, interest on mortgage loans, expenses for health, payment of social taxes are justified by the fact that they stimulate those actions of individuals that are useful to society.

In some cases, the amount of subtraction is limited by minimum levels or amounts in excess of the minimum level. In other cases, they are limited to a certain part of the income in order to provide budget revenues and reduce opportunities for tax evasion.

After determining the amount of income tax, individuals can take advantage of tax credits. Such loans are usually used to alleviate the tax burden of low-income households. Tax credits are also used for taxation of income received from foreign sources.

In some countries, pension income, income from capital increase, income from joint activities, income from business activities, income from agricultural activities are subject to taxation under different tax regimes. Based on the Schanz-Haig-Simons concept (Schanz, 1896; Haig, 1921; Simons, 1938), total income includes wages, business income, capital and rent income, license fees, transfers, retirement income, gifts, and inheritance.

Taxation of additional payments to employees is the main distinguishing feature of various tax systems. In some countries, all additional payments to employees by the employer are not taxed. There are also tax systems in which additional payments are taxed in whole or in part. The main issue of taxation of additional income is related to the determination of their market value. In some cases, employers reward their employees with goods (gifts, own goods, etc.).

Exemption from additional tax payments encourages unscrupulous taxpayers to reduce the basic wage and increase additional payments, which leads to an increase in the burden for tax administration.

In almost all tax systems, transfer income is exempt from taxation. The argument of this approach is the fact that such types of income as pensions and social payments of the state are provided at the expense of previously paid taxes. If social insurance contributions were not taxed before, the income of employees from such sources should be taxed.



Unemployment benefits and material assistance to households can also be deducted from income from taxation. But this raises the question of ensuring the efficiency and fairness of taxation. Material transfers to low-income households should relate to taxable income. But the real value of material transfers may be lower than their book value, which makes it difficult to ensure equity and complicates tax administration. Therefore, attracting only cash transfers to the poor is an attractive proposition.

In most developing countries, many types of capital income are not taxed. Dividends and certain types of deposits are exempt from taxation, which leads to the stimulation of capital investments. But exemption from capital income tax breaks the balance between them and labor income, and also negatively affects the efficiency of tax regulation of the economy. The exemption of dividends from taxation reduces the tax burden of rich people, which causes a sense of injustice among the poor part of society.

The inclusion of the expenses of individuals on mortgage loans to deduct from their taxable income is explained by the stimulation of activities to improve the housing supply of the population. But this motive is justified only if the income of an individual from the purchase of a mortgage apartment will be attracted to taxation.

There are many reasons for deducting medical expenses and social taxes from taxable income. Such an approach may stimulate improvements in the country's health system and increase the social welfare capacity of the state. Another argument is the compulsion of such expenses. They reduce people's incomes and thereby decrease the solvency of taxpayers.

Conclusion

The ideal tax on personal income is the one that covers all incomes of individuals and provides the most equity. The fairness of taxation is ensured by the progressiveness of tax rates, reasonable deductions, benefits for the poor, tax credits and holidays. Expanding the tax base will reduce the tax rates, which leads to a decrease in the tax burden. The collection of income tax at the source greatly facilitates tax administration, reduces opportunities for tax evasion and thereby increases the efficiency of the tax system.

The concept of income has not yet acquired its full definition in economics. On the other hand, the uncertainty of the concept of justice also imposes its own nuances on the construction of the tax system. The multiplicity of any deductions, benefits, exemptions and other regulatory levers complicates tax administration and reduces its effectiveness. The question of integrated taxation of incomes remains open.

References

- Kəlbiyev Y.A. (2005) Fiskal Siyasət və Milli İqtisadiyyatın Tənzimlənməsi Problemləri (monoqrafiya), Bakı: Elm.
- Kəlbiyev Y.A., Məhərrəmov R.B., Rzayev P.Q. (2011) Xarici ölkələrin vergi sistemi. Bakı, Bakı: "İqtisad Universiteti" Nəşriyyatı
- Fisher I. (1942). Constructive income taxation. A proposal for reform by Irving Fisher. N.Y. - London, Harper & Brothers Publishers.
- Haig, Robert M. (1921). "The Concept of Income—Economic and Legal Simons, Henry (1938). Personal Income Taxation: the Definition of Income as a Problem of Fiscal Policy. Chicago: University of Chicago Press. p. 49.
- Kaldor N. (2003). An Expenditure Tax. London, Routledge Library Ed., "Economics", p.11.
- Schanz, G. (1896). "Der Einkommensbegriff und die Einkommensteuergesetze". [Finanzarchiv](#). 13: 1–87.
- Seyfullayev I.Z. (2013a). Theoretical and practical issues of evaluating the effectiveness of tax incentives. Tax Journal of Azerbaijan, Special issue, p.129-140.



- Seyfullayev I.Z. (2013b). The application of the principles of equality and fairness in the income taxation of natural persons, *Tax Journal of Azerbaijan*. vol.5, page73- 90
- Simons, Henry (1938). *Personal Income Taxation: the Definition of Income as a Problem of Fiscal Policy*. Chicago: University of Chicago Press. p. 49.
- Гоббс Т. (1991). *Левиафан, или материя, форма и власть государства церковного и гражданского*. Соч. в 2 т. Т. 2. Москва: “Мысль”, с. 269.
- Милль Дж. (1981). *Основы политической экономики*. В 3 т. Т. 3. Москва: “Прогресс”, 448 с.
- Пансков В.Г. (2008). “О принципах налогообложения физических лиц”, *ж-л Финансы*, №1, с. 28-33.



The Potential Role of Open Innovation Activities in Sustainable Development in Azerbaijan

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Abstract

As a new innovation policy, open innovation is a broadly used notion in academia, businesses and policy-making processes. The conducted studies show that open innovation has a significant impact on the innovation economy and socio-economic development of the countries. Thus, open innovation strategies are already being developed and implemented by many countries, activities on open innovation are increasing gradually. In Azerbaijan, the preparation of these strategies is at the initial stage. This paper discusses critical trends, challenges and potential solutions within the context of open innovation policies in sustainable development of Azerbaijan. The aim of the study is understanding the effects of open innovation activities on socio-economic development of Azerbaijan, particularly developments within the private and public sector. In this paper, the context of open innovation was investigated by examining the current situation in Azerbaijan and analyzing it in accordance with the results of the survey conducted by the researchers.

Keywords: Open innovation, Policy, Sustainable development

Introduction

From the beginning of the 21st century, the concept of innovation, which is a key issue in the economy, has been one of the key concepts for countries and companies to maintain their position in the competitive world, and the number of investigations has increased day by day. But in recent years, as the companies have changed their innovation policy and pursued a new policy, open innovation has attracted the attention of the public as one of the topical issues. The concept of open innovation is interpreted as accelerating internal innovation and expanding the innovation market for external use by involving and transmitting knowledge. Recent studies of developed and developing countries, including transnational companies, and innovation labs, have demonstrated that open innovation has significant implications for the innovation economy and the country's socio-economic development. Open innovation strategies are being developed and implemented by many countries (for example, America, Germany, Norway, China). In Azerbaijan, these strategies are at the initial stage. This article explores the current state of open innovation practices in Azerbaijan, as well as the existing problems of open innovation ecosystems and their solutions.

Method

In the paper both practical and theoretically empirical data have been studied. In the practical part, the Open Innovation survey was conducted among the citizens of the country and key statistical information was collected. There are also reports from existing foreign literature, global economic conferences and forums, international research companies, and most of the foreign researchers in this area for 2003-2018.



Findings

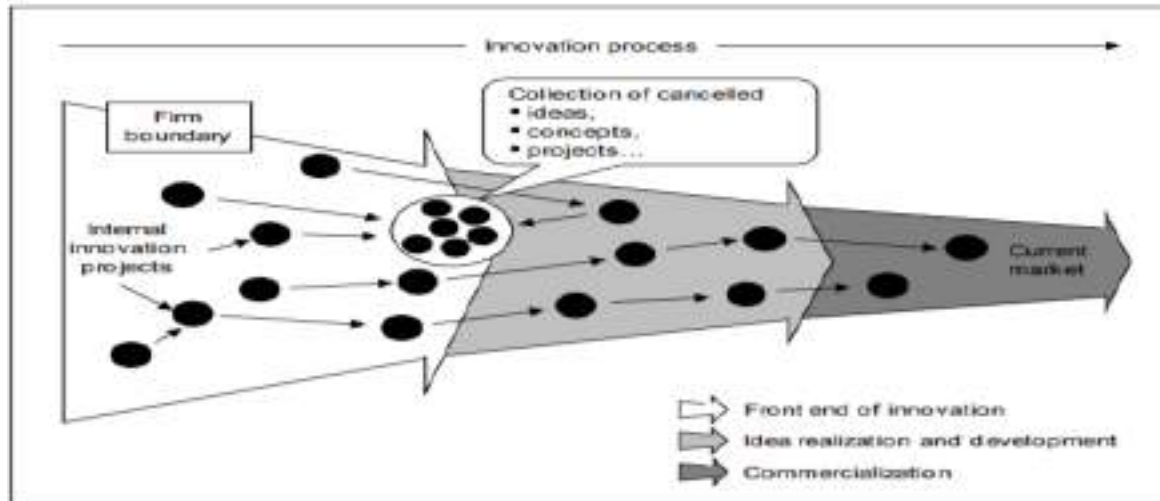
The Closed and Open Innovation paradigms.

The closed innovation paradigm is based on the argument that a successful innovation can be managed and managed. This approach supports strong internal inside logic, since it does not guarantee that others' technology or ideas are present and reliable. Thus, indoor innovation involves deep vertical integration, from production to sales service and the period after it: The company follows this type of innovation policy only when it comes to critical technology and innovation decisions, and it accepts it with the help of its internal staff. The main reason for this was the occurrence of the Not Incognito here syndrome: This syndrome has the substance "Everything that comes from abroad is suspicious and unreliable." (Chesbrough H. W., 2006) There are several key requirements for implementing a closed-door innovation:

- The company should employ the most intelligent and capable people.
- To benefit from innovative opportunities, the company needs to find, develop and sell everything.
- To be the market leader, research discoveries need to be within the company.
- Limited Intellectual Property (IP) management should prevent other companies from taking advantage of their personal views and technologies.

Traditionally, a number of large companies have used a closed-door innovation approach to the creation of Research and Development (internal) centers for the discovery, development and commercialization of innovative technologies. The period between the Second World War and 1985 is in line with the Golden Age of Internal Research and Development. Many of the private companies claimed the importance of investing in research and development on research and development. In addition, involvement of large investments in internal research and development was perceived as a powerful obstacle to potential new competitors. In order to keep up the competition, competitors also had to invest large investments and develop research and development centers, otherwise these companies could face a loss of market share. However, some problems have arisen in this approach. So investing more in Investigations and Development did not necessarily guarantee success on rival companies in the marketplace. The key feature of closed-type innovation lies in the fact that innovation-driven processes and intellectual property are fully developed and maintained inside the company's limits until the new product is presented on the market. Under this paradigm, the period of innovation is under full control. To put it more precisely, it means that a company needs to do everything to create, distribute, serve and finance the idea from creation to development. This paradigm assumes that innovation projects (1) can only enter the innovation process at the forefront, (2) improved only by using internal resources and powers, and (3) ultimately simply passing through the process of commercializing the company's own distribution channels. Thus, the conventional funnel analogy description is in this context.

Figure 1. Closed Innovation Model



Source: Philipp Herzog (2011) - *Open and Closed Innovation: Different Cultures for Different Strategies* - 287 p.
(adapted from Chesbrough (2003c), p. 31.)

The concept of Open Innovation.

The concept of open innovation was first introduced in 2003 by Prof. It was developed by Henry Chesbrough (Berkeley University, Haas Business School). The most widely used open-end innovation concept used in literature is a definition based on Chesbrough's (2003) "valuable ideas emerging not only within a single company, but also beyond the company and their commercialization." Later, in 2006, he described open innovation as "accelerating internal innovation and expanding the innovation market for external use by engaging and transmitting targeted knowledge."

Open innovation is a paradigm that assumes companies should be able to utilize and use foreign thoughts as well as internal ideas. The first reason for a broader understanding of this approach is to reflect social and economic changes on business forms. Another reason was the growing globalization, the development of intellectual property rights organizations, including the need for venture capital (VC) and technology-related companies to exchange views. (Dahlander & Gann, 2010). Chesbrough states that innovation can be realized in two ways. First, it is the "outside" aspect where external ideas and technologies are brought to the innovation process of the company. This is the most recognizable feature of open innovation. The other, less well-known aspect, is the "inside" part that allows companies to use ideas and technologies that are used and not used to incorporate other companies into innovation processes. The open innovation paradigm sees Research and Development as open systems, and suggests that valuable ideas can come from inside and outside the organization.

The main conditions that distinguish open innovation from the classic model are reflected in the following principles:

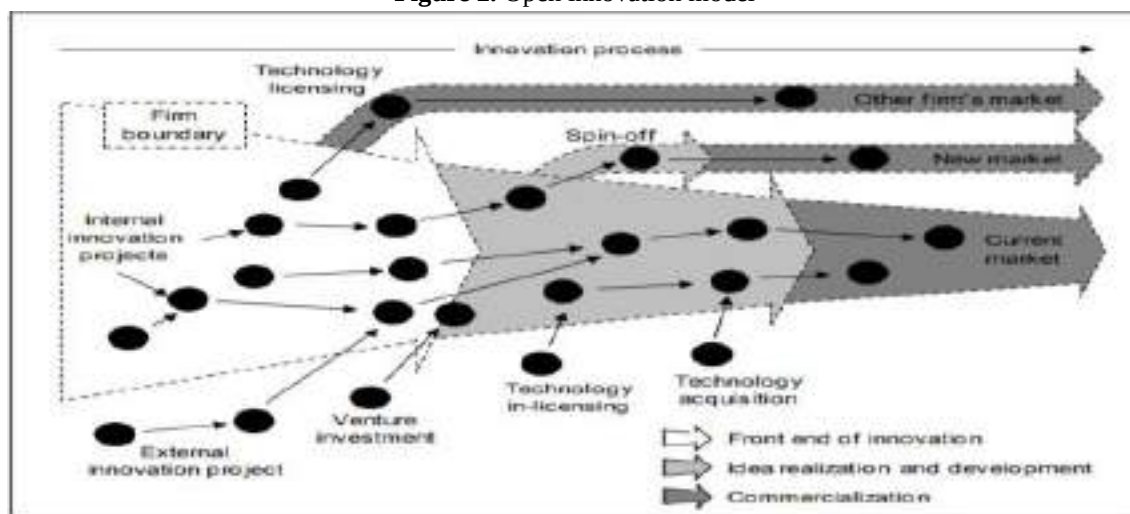
- There is no need to employ all the smart people in the company; on the contrary, it is necessary to cooperate with them inside and outside the company.
- There is a need for internal innovation activities to require some of the values that can be generated by external innovation efforts.
- To win the competition, it is important to have a better business model rather than entering the market first.
- The competitive advantage is possible not only by the emergence of more or the best thoughts, but also by the best use of internal and external ideas.



- Proactive IP management allows you to use the company-owned IP of other rival companies. In addition, when companies develop their business model, they also plan to buy other IP companies.

The enterprise can get innovative resources from outside the company, such as university-industry co-operation, research laboratories, consulting services, and the Internet with the introduction of an open innovation model. Generally, this innovative approach makes the boundary between the company and its environment more porous and transforms the past layer boundary into a semiconductor membrane. The following picture describes an open innovation model.

Figure 2. Open innovation model



Source: Philipp Herzog (2011) - Open and Closed Innovation: Different Cultures for Different Strategies
s.23 (adapted from Chesbrough (2003c), p. 44.)

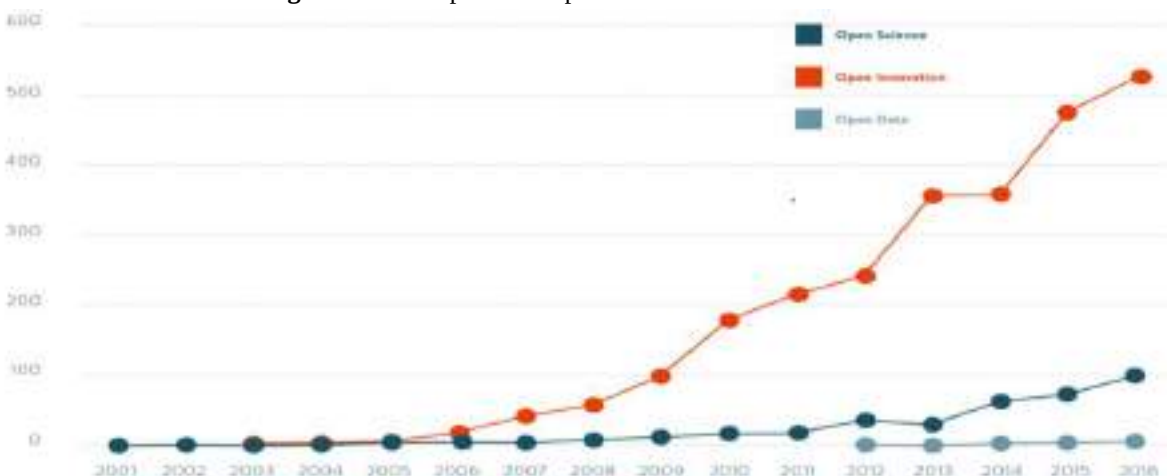
In order to implement a successful open-minded innovation policy, the company must understand intellectual property, intellectual property rights and technical and research processes in the field of protection of rights, both internal and external, and must integrate with existing resources of the enterprise. Therefore, a systematic investigation of internal and external sources of innovation capabilities, the ability to consciously integrate this research with the company's capabilities and resources, and to utilize these opportunities through multiple channels.

The open innovation approach, which has become topical in recent years, has caused great interest both in practice and in academics. At present, research and development efforts by developed and developing countries, including transnational companies, to create new innovation laboratories, have an important impact on open-minded innovation economics and socio-economic development of the country. At present, some of the major internet resources have been put in place by sharing information about this approach and positively enriched by people. An example of this is the website openinnovation.eu, funded by the European Union. The founders of this website are those who have been engaged in open innovations, as well as strategic research in the area of entrepreneurship and are the brightest speakers in the world's top-level events, who have accumulated great scientific experience. Their strategic partner, Dr. Henry Chesbrough, is the founder of an open innovation approach (Berkeley University, Haas Business School). In addition, various surveys have been conducted by several well-known universities and institutions around this topic. The most prominent among them is the organization organized by the University of Berkeley. Thus, with the



introduction of an open innovation approach based on a survey among 125 companies operating in different levels of development, companies have attracted more creative ideas, including significant gains.

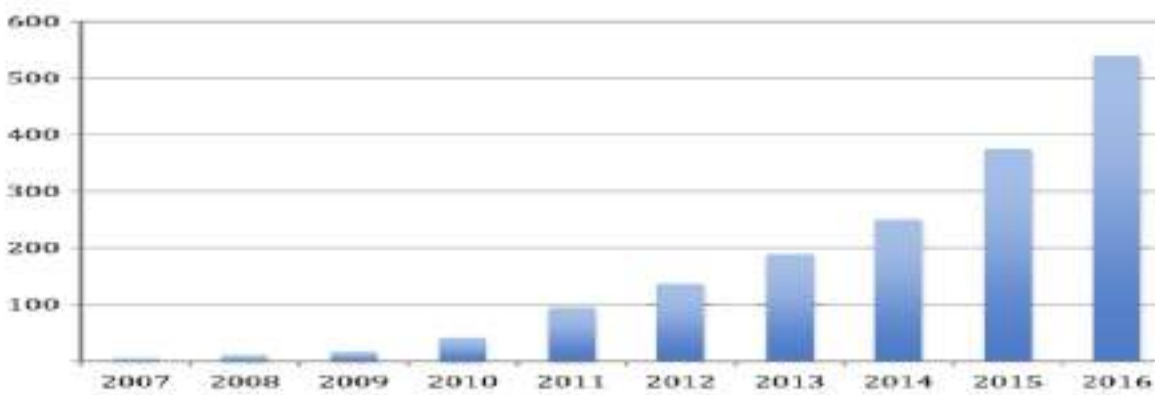
Figure 3. Development of open innovation in scientific literature



Source: Clemens Blümel, Benedikt Fecher, Gertraud Leimuller, “Was Gewinnen Wir Durch Open Science Und Open Innovation?” Web of Science
file:///C:/Users/totti/Downloads/was_gewinnen_wir_durch_open_science_und_open_innovation%20(1).pdf

Figure 3 shows that both concepts have great importance in scientific discussions. While only four scientific articles on open innovation were published in 2003, their number rose to 526 in 2016. Thus, scientific articles on open innovation have only grown ten times more than in 2007 and in 2015. Significant growth has been observed in the field of open science over the years. So, in 2001, when it was published, it increased to 64 in 2013 and to 100 in 2016. However, the theme of open innovation is, in contrast to the other two issues, more investigated and its growth rate was higher. Thus, in 2006-2009, 126 scientific articles and 8 books were published on the implementation of open innovation activities in small enterprises. Studies conducted in the year 2016 show that scientific articles written with reference to this study have significantly increased compared to previous periods.

Figure 4. Number of references to scientific articles on open science for years.

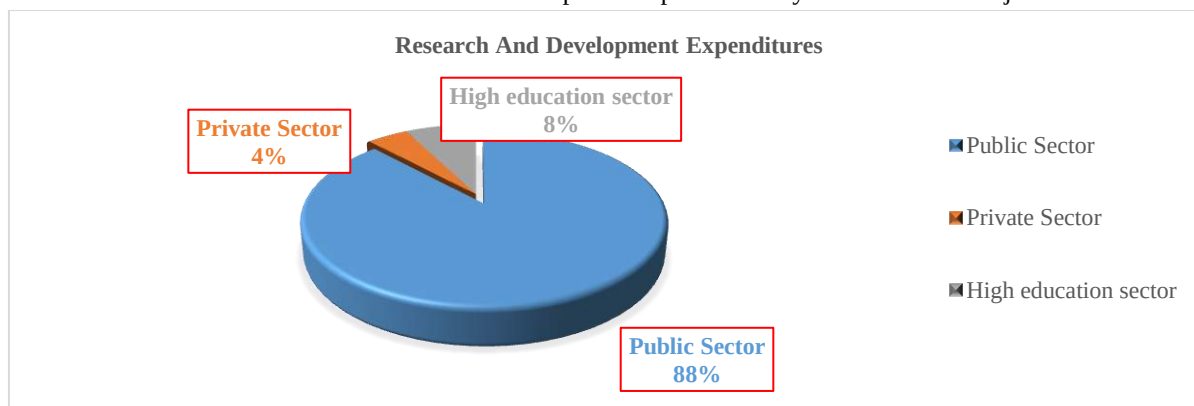




Source: Muhammad Usman, "A systematic review of literature on OI in SMEs"
file:///C:/Users/totti/Downloads/AS5967925550776321519297841015_content_1.pdf
Current situation of Open Innovation applications in Azerbaijan.

In contrast to developed countries, open innovation activities in developing countries are still new. The lack of open innovation practices in developing countries is directly related to the different levels of development of countries, including the availability of a different innovation ecosystem. Open innovation applications in Azerbaijan are relatively small compared to other countries. The main reason for this is that investments in research and development in our country constitute 0.2% of GDP, which is much lower than in other countries (1.1% in Russia, 2.5% in OECD, 4 in Israel, 3%).

Chart 1. Research and development expenditures by sectors in Azerbaijan



Source: UNESCO Institute for Statistics, Science, Technology and Innovation Databases, Research and Development Database.
http://data.uis.unesco.org/Index.aspx?DataSetCode=scn_ds

While there are few applications in this field in Azerbaijan, it is possible to see some examples of open innovations. They show themselves in more collaborative collaboration. Although these activities are not interpreted as open innovations, many enterprises use open innovation as a tool in practice. Nowadays, many applications in the telecommunications sector, mobile operators and mobile applications have been launched by companies that have already established partnerships with banks and mobile operators. Moreover, increasing the technological portfolios of companies operating in Azerbaijan through leasing is also an example of open innovation practices. In the public sector, the "Idea Bank" project, proposed by the State Agency for Citizens Service and Social Innovations, can be seen as an example of an open innovation application. This project is related to the collection of ideas from citizens to improve the performance of the idea bank agency, including the ASAN service centers, the Ministry of Education and the State Students Admission Commission. Thus, in addition to contributing to positive changes with their ideas, citizens are directly involved in the decision-making process in the directions determined by state agencies. Incubation Centers, Entrepreneurship Centers, Academics they are directly involved in the commercialization of knowledge and innovative ideas. At the same time, the innovation center, which is expected to be commissioned next year, and the technological transfer center, which will start operating under it, will also help to improve the open innovation ecosystem.

Open innovation ecosystem problems and solutions in Azerbaijan.

As in many developing countries, Azerbaijan faces a number of challenges in promoting an open-minded concept of innovation and promoting open-minded innovation practices. These problems are a serious obstacle to the creation of



an open innovation ecosystem in Azerbaijan. So, according to my surveys and interview results, we can classify these problems into 5 groups:

1. Incorrect or inadequate level of open innovation concept:

Participants in innovation activities, corporate executives, and senior managers, employees, as well as younger generations have been unaware of open-minded innovation and therefore have little importance for open-minded innovation. The second concept, which is not fully understood, is the concept of crowdsourcing. So, this concept is less known to people than open innovation. In addition, it is one of the other reasons for the lack of open-minded concept, as well as the lack of awareness on open innovation platforms and crowdsourcing platforms.

2. Rejection of companies by using knowledge from abroad:

Many companies are unwilling to embark on an open Research and Development model. The main reason is that companies have different cultures and ideas. Companies with monopolistic thinking are not interested in sharing their internal Research and Development resources, with a desire to lose their domestic market share. Therefore, these companies prefer a closed model compared to an open innovation model. In addition, inter-company insecurity causes the company to rely on foreign-borne knowledge, including its foreign-borne ideas in solving problems. This condition can also be called "untested" syndrome. (O'Dell, Carla, C.Jackson Grayson, 1998) The companies, however, try to overcome any risk they may encounter by opposing ideas and knowledge that exists outside of them.

3. Lack of adequate management capabilities in companies with open innovation practices:

Thus, cooperation with large companies on open innovation practices is not so much a matter of interest for small and medium-sized companies, and some companies are reluctant to cooperate. The main reason for this is their fear of being squeezed out of big companies. At the same time, there are serious problems with management of this type of interagency cooperation. Managing problems also demonstrate that it manages intellectual property and distorts these companies' IP co-operation with other competitors. Companies need to build value for open innovation cooperation, as well as collaboration models that will protect intellectual property rights. In addition, the challenges of how to build cooperation agreements, how things to be done during the collaboration, and how the distribution of cooperation results, including intellectual property, have serious impacts on cooperation.

4. Lack of knowledge and relationships between universities and companies:

University-owned research, lack of links between incubation centers and other innovation structures, as well as lack of information on activities, ie lack of information, have a serious negative impact on the development of an open-minded innovation ecosystem. Companies are experiencing serious problems with identifying persons who may be able to assist in making effective initiatives in open innovation practices. In addition, industry-university collaborations have serious problems in managing these projects, because business demands and university prospects do not coincide .

5. Problems arising from the protection of intellectual property rights:

There is a need in the legislation to clarify some issues regarding the protection of intellectual property rights, and more effective law enforcement agencies. Many companies, as well as those with innovative ideas, do not have enough information on how to protect intellectual property through legislation.

Results of a survey conducted to study ideas about open innovation in Azerbaijan.

A survey of 156 people was conducted to study the subject. The main purpose of the survey, which consists of 10 questions, consists of general and specific questions, depending on whether people have the knowledge or

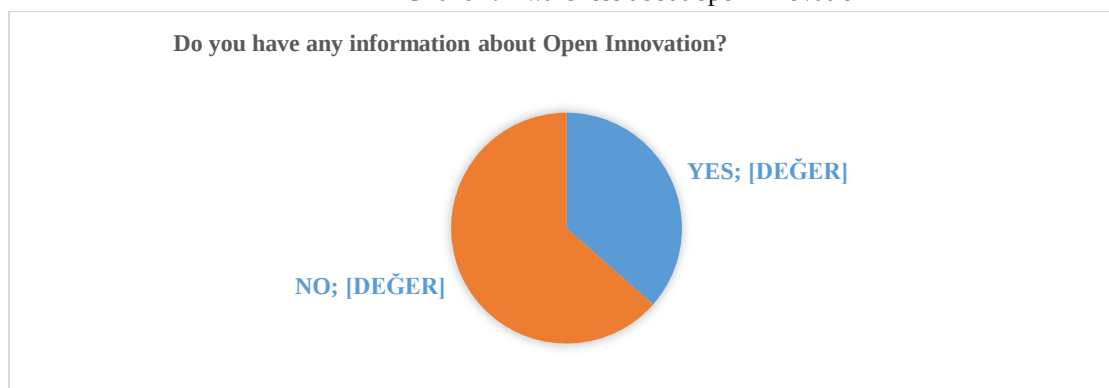


understanding of open innovation, as well as the way in which the opinions on some of the questions around this topic are addressed. The general section covers questions about the general information about the people involved in the survey, that they are trained in what they are working on, how they are working in the public sector or in the private sector.

The specific part covers specific issues of open innovation. Additionally, we would like to point out that access to the inquiry has provided information on what kind of innovation is. Those surveyed include people aged 18-45, of whom 79.5% are young people aged 18-24 years old. Of the 157 respondents, 40% were economically and mentally oriented, while others received engineering, pedagogy and medical care. Currently, 66 people are employed and 56% of them are in the private sector.

A questionnaire designed to explore open-minded innovations has asked the question "Do you have any information about open innovation?" And 63.5% of people answered the blessing.

Chart 2. Awareness about open innovation



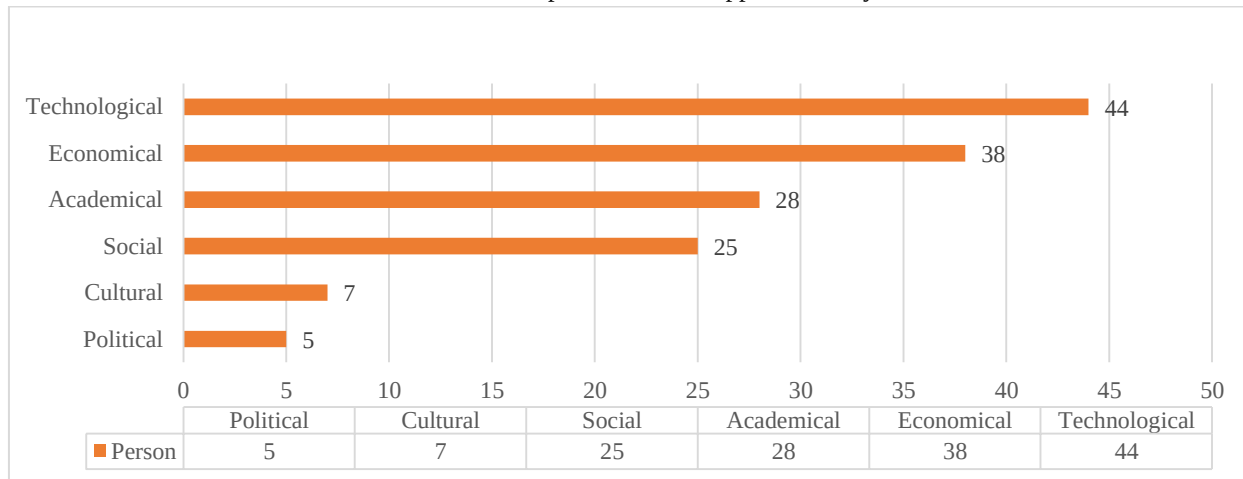
Source: A survey by researchers

Based on this graph, the vast majority of people surveyed (100 people) have no information about open-minded innovation, but only 57 people have information on this topic. The sharp differentiation of these rates is not surprising as the concept of open innovation is a new topic in our country. At the same time, this notion of non-dissemination of this approach can be seen as the main reason why universities do not have lessons in this area, the mass media and the fact that they are not involved in research, and that companies do not carry out extensive activities in this area. We want to note that, based on the awareness of the term "open innovation", the specific part of the questionnaire was completed with the participation of 57 people, who were informed about this subject in order to obtain more accurate and accurate information on open innovation in Azerbaijan. The first issue of the specific section was designed to explore the areas in which more open innovation applications are being used. In this questionnaire, participants had the opportunity to celebrate several options at the same time.

According to the chart below, the vast majority of respondents (74.6%) use open innovation applications more technologically, as well as technology (64.8%), academical (47.5%) and social (42.5%).



Chart 3. The use of open innovation applications by sectors

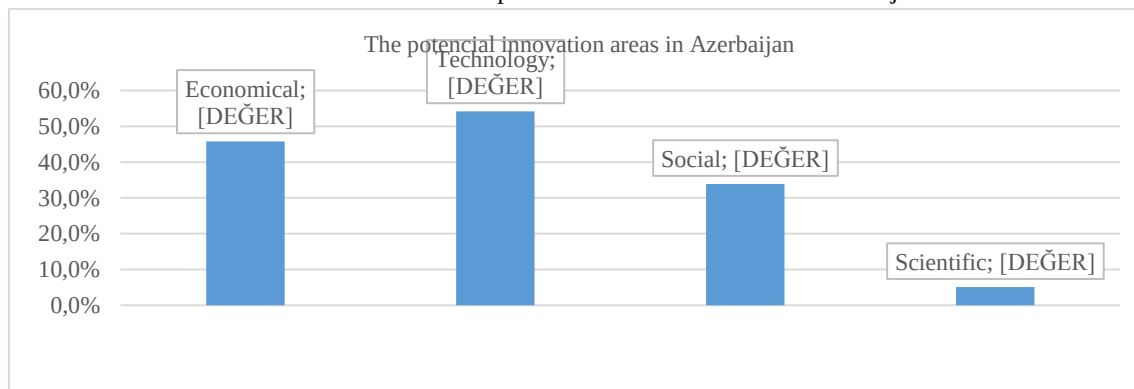


Source: A survey by researchers.

Most of the participants have the idea that these applications are applied in the fields of culture (11.9%) and political (8.5%). At the same time, these figures are listed in the graph as well.

The question of "what areas in Azerbaijan needs innovation" is the next question in the questionnaire. So, the purpose of this question is to show the areas where innovation and the importance of open innovation are essential in our country. You can see this from the graph below:

Chart 4. The potential innovation areas in Azerbaijan



Source: A survey by researchers

As seen from the graph, most of the respondents think that technology is at the forefront of innovation in Azerbaijan. As a matter of fact, they are 32 people. In addition, 27 participants noted the need for banking sector, as well as 20 social-oriented innovations. Only a small number of people come to the conclusion that, as the main trends of innovation, it is necessary to give priority to scientific and political fields. Based on these statistics, if innovations are implemented in the above-mentioned fields in Azerbaijan, it will provide rapid and efficient development of these areas and will also enable open innovation activities in these areas. By putting forward this argument, it is based on the idea that open innovation will show itself in all areas and reduce the use of the classic innovation model. At the



same time, according to the participants, they include the Baku Transport Agency, the Electronic Government Portal, the Innovation Agency under the Ministry of Transport, Communication and High Technologies of the Republic of Azerbaijan, as well as the State Agency for Citizens Service and Social Innovations under the President of the Republic of Azerbaijan and its subordinate ASAN service centers as well as innovation activities are often carried out in public institutions. However, some participants emphasized that these activities were carried out by more private sector entities. This also shows that, with the support of these institutions, there is a greater possibility of using open innovation activities, as well as accelerating the development of the open innovation ecosystem.

One third of the answers given in the next questionnaire to explore potential barriers to the development of open innovation were the "I do not know" option. I would like to remind you that this answer was the choice of people who have the understanding of the subject. According to these answers, we can say that in our country, those who are familiar with this notion have no deep knowledge. This is considered to be one of the potential obstacles to the development of open innovation ecosystems in the current period. Then, there are versions that suggest that the society does not adequately evaluate the innovations offered and that there is no need for innovations. At the same time, it has been revealed that our young people are reluctant to propose new ideas and do not have enough talent, education and material opportunity to develop new ideas. As we know, innovative ideas are often put forward by young people because they are inclined to research and apply innovation. However, the fact that the private bodies in our country, especially the lack of young staff in government agencies, causes the possible "fall" of ideas in these institutions. At the same time, competition among companies with monopolistic thinking, as well as lack of support for open innovation in state innovation policies, have been identified as potential barriers.

Finally, because of the lack of "awareness" in our country of open innovation, the participants who have knowledge of the subject have been addressed as the last question of what form will be more effective in promoting this concept. Most participants feel that online and offline advertising, organization of informational training and seminars, inclusion in university and school curricula (but this method will take enough time), while also promoting the open innovation propaganda process using mass media. I think that, based on these answers, these methods, which are effective in dissemination of information in Azerbaijan, will also help to achieve successful results in promoting open innovation paradigm.

Results, Conclusions and Recommendations.

While the above problems have created potential barriers to open-source innovation ecosystems in Azerbaijan, in this section several ways have been identified for solving problems with prevalence. Thus, eliminating these problems can promote open innovation activities in Azerbaijan, while simultaneously accelerating the development of open innovation ecosystems. We can group these solutions under the following three main problems:

1. The lack of sufficient knowledge about the concept of open innovation

- Solution 1. Enlightenment on this subject is important in order to properly understand the concept of open innovation in Azerbaijan and to be widely accepted by the general public. Thus, creating education platforms in this area, as well as organizing trainings, can speed up the process of demonstrating and informing the value of open innovations. At present, the wide propagation of the concept of "open science" in our country is carried out under the project "Promoting Open Science Practice Among Young Researchers" jointly organized by the Youth Foundation of the Republic of Azerbaijan and Azerbaijan Young Scientists, PhD students and masters. At the same time, promoting successful open innovation stories in research, as well as in mass media, in areas appropriate to our country's business environment, will help increase the awareness among people.



- Solution 2. Another reason why this concept is not widely disseminated is that there are no open-ended innovation classes at universities that cover the undergraduate and graduate degrees. So far, open innovation lessons are being taught in many foreign universities (Oxford, Berkeley, Durham), which currently have a high level of education in management and economics. At present, the lessons on this area are almost in our country.

2. Lack of healthy and sustainable relationships to realize open-minded innovation activities between the public and private sectors

- Solution 1. For the development of the open innovation ecosystem, companies should first analyze the relationships between these ecosystem organizations (companies, universities, governments, intermediaries, etc.), but the implementation of open innovation practices and analysis of companies currently operating in our country. There is a need for highly qualified specialists. It is important to organize open-source innovation certification programs for these specialists. Thus, these certified professionals will have a wealth of knowledge and skills to follow a successful open-minded policy. A) Ability to evaluate external knowledge b) Ability to integrate foreign knowledge c) Full market study of market psychology and potential new market (to meet unpaid needs) d) Business flexibility in planning e) Predicting time changes plan f) strategies. Currently, these certification programs are implemented in countries such as America, Canada, England. By organizing these short-term courses, professionals will have the knowledge like research and development, successful lending and crowdsourcing practices, as well as partnerships, management, and protection of intellectual property rights. It is better to use university research and development centers and incubation centers to train these programs. At the same time, providing financial support to the state for the organization of these programs will increase attention to this area

- Solution 2. Increasing the number of technoparks, research and development centers and incubation centers within universities will directly support the establishment of early partnerships of these companies with universities. At the same time, state involvement of innovative ideas, as well as experts and companies, will accelerate. Unfortunately, our country still has not enough research development, incubation, entrepreneurship centers, as well as technological transfer offices. At the same time, it is necessary to invite experts from foreign countries to promote open innovation in these centers and to support the development of open innovative activities. As a result, our innovation processes will accelerate in our country, as well as the transition to an open-minded innovation model. This idea is currently being implemented by the South Korean state and has already begun to make a positive contribution.

3. Not enough care and attention by the Government to promote open innovation as well as promote its activities, but also the lack of transparency in the legislation on openness:

- Solution 1. It is important for the law enforcement agencies to provide more operational services for the protection of intellectual property rights of people with innovative ideas. At the same time there is a need for legislative regulation in order to prevent problems that may arise during open innovation. These problems can occur during collaborative research, licensing, and crowdsourcing.

- Solution 2. Supporting companies with potential innovation - State-financed companies and tax incentives for companies that collaborate to promote open innovation activities for the development or production of any product, service or technology that may be of benefit to the Community, it will stimulate the growth of cooperation. At the same time, contracts with companies that have established partnerships require that the products, services or technology that they have jointly licensed and sold for their own areas, including their regulatory requirements.



The current and potential problems of open innovation activities and the current state of open innovation ecosystems in Azerbaijan, as well as their solutions are mentioned. In order to accelerate innovation processes in Azerbaijan, there is a need for broader innovation practices.

The following suggestions can be made to speed up the process:

Creating educational platforms in this area, as well as organizing training, seminars and conferences in universities in order to ensure the widest range of open-minded innovation concepts can accelerate the process of demonstrating and informing the value of open innovations. At present, the wide propagation of the concept of "open science" in our country is carried out under the project "Promoting Open Science Practice Among Young Researchers" jointly organized by the Youth Foundation of the Republic of Azerbaijan and Azerbaijan Young Scientists, PhD students and masters. At the same time, promoting successful open innovation stories in research, as well as in mass media, in areas appropriate to our country's business environment, will help increase the awareness among people.

References

- "National Strategy for the Development of Information Society in the Republic of Azerbaijan for 2014-2020", <https://president.az/articles/11312> (02.04.2014)
- "Order of the President of the Republic of Azerbaijan on the establishment of the Azerbaijan National Academy of Sciences (ANAS) High Technology Park", <https://president.az/articles/21637> (08.11.2016)
- "Azerbaijan 2020: Look Into The Future" Concept Of Development, https://president.az/files/future_az.pdf (18.05.2019)
- Appleyard M.M, Chesbrough H.W (2007). Open innovation and strategy. California Management Review 50 (1): 57-76.
- Aslanlı K. Increasing the effectiveness of innovation policy in Azerbaijan: http://edf.az/ts_general/azl/layihe/IIED/downloads/innovasiya_siyyaseti.pdf (08.11.2017)
- Chesbrough, H, Crowther, AK. (2006). Beyond high tech: early adopters of open innovation in other industries. R & D Management 36 (3): 229-236
- Chesbrough, H. (2003), Open Innovation: The New Imperative for Creating and Profiting from Technology, Harvard Business School Press Boston, USA-245 p.
- Chesbrough, H. (2006). Open innovation: a new paradigm for understanding industrial innovation. Open innovation: Researching a new paradigm, 1-12.
- Chesbrough, H. W. (2003b). The logic of open innovation: managing intellectual property. California Management Review, 45 (3): 33-58.
- Chesbrough, Henry W. (2003) "The Era of Open Innovation", MIT Sloan Management Review, spring 2003: 35-41
- Clemens Blümel, Benedikt Fecher, Gertraud Leimuller, "Was Gewinnen Wir Durch Open Science Und Open Innovation?" Web of Science file:///C:/Users/totti/Downloads/was_gewinnen_wir_durch_open_science_und_open_innovation%20(1).pdf
- D. Hilgers, C. Ihl (2010) "Citizensourcing: Applying the Concept of Open Innovation to the Public Sector," International Journal of Public Participation, 4/1 (January 2010): 67-88.
- Dahlander, L., & Gann, D. M. (2010). How open is innovation?. Research policy, 39(6), 699-709.
- Elmquist, M., Fredberg, T., & Ollila, S. (2009). Exploring the field of open innovation. European Journal of Innovation Management, 12(3), 326-345.
- Enkel, E., Gassmann, O., & Chesbrough, H. (2009). Open R&D and open innovation: exploring the phenomenon. R&D Management, 39(4), 311-316.



- European Commission, Open Innovation, Open Science, Open to the World: A Vision for Europe (Brussels, Belgium: European Commission, 2016: http://europa.eu/rapid/press-release_SPEECH-15-5243_en.htm (22.06.2015)
- F. Di Pietro, A. Prencipe, and A. Majchrzak, "Crowd Equity Investors: An Underutilized Asset for Open Innovation in Startups," *California Management Review*, 60/2 (Winter 2018): 43-70.
- F. Meulman, I. Reymen, K. Podoyntsina, and A. G. L. Romme, "Searching for Partners in Open Innovation Settings: How to Overcome the Constraints of Local Search," *California Management Review*, 60/2 (Winter 2018): 71-97.
- Gassmann, O, Enkel, E, Chesbrough, H. 2010. The future of open innovation. *R & D Management* 40 (3): 213-221.
- I. Mergel, K. C. Desouza (2013) "Implementing Open Innovation in the Public Sector: The Case of Challenge.gov," *Public Administration Review*, 73/6 (November/December 2013): 882-890.
- Law of the Republic of Azerbaijan "On Science", http://science.gov.az/uploads/PDF/Elm_haqqinda_Azərbaycan_Respublikasının_Qanunu.pdf (14.06.2016)
- Lichtenthaler, U. ve Ernst, H. (2009) "Opening Up the Innovation Process: The Role of Technology Aggressiveness", *R&D Management*, Vol.39, No: 1.
- O'Dell, Carla, C. Jackson Grayson- If Only We Knew What We Know: Identification and Transfer of Internal Best Practices 40/3 (1998) 154-174
- Open Innovation in Europe - Keynotes, Masterclasses & Games - Open Innovation, <https://www.openinnovation.eu/open-innovation/>(30.04.2019)
- Open Innovation in Europe, https://media.nesta.org.uk/documents/open-innovation-in-europe_2017.pdf (30.04.2019)
- Philipp Herzog (2011), *Open and Closed Innovation: Different Cultures for Different Strategies* – p. 287.
- State Statistical Committee of the Republic of Azerbaijan. "Education, science and culture in Azerbaijan". Statistical summary. 2018 (pp. 305), <https://www.stat.gov.az/source/education/> (18.05.2019)
- Strategic Roadmap for the National Economy Perspective of the Republic of Azerbaijan: <https://static.president.az/pdf/38542.pdf> (18.05.2019)
- The Regulation on Electronic Services Development and Social Innovation Department of the State Agency for Public Service and Social Innovations under the President of the Republic of Azerbaijan <https://president.az/articles/5716> (18.05.2019)
- The Sustainable Development Goals (SDGs) are part of the 2030 Agenda for Sustainable Development, and were adopted by world leaders at a Summit of the United Nations (UN) in September 2015, <http://www.un.org/sustainabledevelopment/development-agenda> (22.10.2017)



The Influence of Character and Values Education on the Development of the University Students' Human Values

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Abstract

This study aimed to explore whether there has been any influence of Character and Values Education (CVE) course and talking about the values occasionally in various courses on changing the level of possessing human values. It also aimed to find out if CVE course offered to the students during one semester has influenced increasing the level of the students' human values. The participants of the study were the students studying in the Faculty of Education at one of the university in North Cyprus during the Spring term of the academic year 2018-2019. Data were collected between February 2019 and June 2019. In this quasi-experimental study, there were two different experimental groups and one control group. The first experimental group consisted of the students who were enrolled into CVE course while in the second experimental group the participants were the students who were exposed to human values by occasionally talking about them in various courses. The control group of the study were composed of the students who were not mentioned about any human values at all. Data collection instrument was Human Values Scale (Dilmaç, 2007), which was used to carry out pre- and post-tests of the study. It consisted of six sub-categories: responsibility, friendship, being peaceful, respect, honesty and tolerance. It was composed of forty-two items and the internal consistency and the reliability coefficient of the scale were .92 and .87, respectively. Since 2018-2019 academic year Spring term has recently been completed and the statistical results and the findings are still being studied, they will be presented at the conference.

Key words: Character and human values education, Human Values Scale, Quasi-experimental study



Regulation of Lifelong in Education and Its Economic, Social Benefits

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Abstract

Sustainability in education is important in ensuring knowledge-based and innovation-driven development and human capital reproduction. Sustainability is particular important for the prevention of some economic and social problems that may arise in the future and raising the competitiveness of the country. Sustainability - the prevention as some of economic and social problems that may arise in the future is of particular importance in raising the country's competitiveness. The aim of the research is to estimate the economic-social benefits of regulation of sustainability in education and to give the suggestions in the direction of the improvement of the effectiveness of the regulation. The impact of continuity in education on the formation and development of human capital, knowledge-based society building, labour intelligence, competitiveness and the improvement of welfare are assessed cross-country in the article. In particular, in recent years, researches and politicians have analysed the '4th industry' revolution ('Industry 4.0') 'the benefits and losses in the medium and long-term perspective and its interaction with the sustainability of education. Here are two issues: 1) socioeconomic disadvantages of ensuring sustainability in education, 2) socioeconomic advantages of ensuring sustainability in education. Firstly, it is analysed the impacts of increased unemployment, reduction of employment income, declining social security and welfare that will be resulted as problems on economic development. Secondly, it is analysed (ensuring in sustainability condition) the distinguished factors of rapid technological innovation, labour productivity, repatriation of human capital, raising competitiveness on the international level, innovation-based development, economic benefits of knowledge and skills.

Keywords: Education, Knowledge, Innovation, Information, Regulation.

Introduction

As a result of rapid technical and technological innovation in recent years, labour-intensive jobs have been replaced by jobs with intellect (knowledge) sparing. This process requires the initiation of a more effective regulatory mechanism for the forming and reproduction of human capital. Reproduction of human capital can be equal to the sustainability of education, because of recreation happens when the human capital is available to



update itself with on the background of continuous training and education. The development dynamics of science and the economy show that it is impossible to increase the country's (company's) competitive power in the medium and long term without forming human capital in accordance with the fast-changing demands of the labour market. Thus, the 'Industry 4.0' revolution reveals the sustainability of education (training) as well as the implementation of more flexible policy in this direction compared to previous periods.

Obviously, as a result of the development of science and economy, a great number of new professions and specialties have so far been created and will continue to be new. This will increase the demand for better qualitative workforce by changing the structure of the economy and the labour market. Therefore, in order to benefit from the advantages of 'Industry 4.0' and to prevent its problems that may arise (especially in developing and weakly developed countries), there should be no delay in reforming scientific activity, education and training. I think that, delay in this process can lead to serious economic and social problems in the medium and long term. At present, a number of brain centres in the world (McKinsey, WB, WEF, EY, WIPO, UNESCO, The Economist) are focusing on Industry 4.0 and the problem of sustainability of education. According to calculations, as a result of rapid technical and technological renovation, about 70% of their locations will be fully or partially automated in the next five years. This will result in the reduction of jobs on the one hand and, on the other hand, the creation of new jobs. The demand will be increase for higher qualitative human capital, professions and specialties in the new work places. This at the same time will have an impact on the deepen increase the tension in the labour market (the rising gap between the knowledge required and the proposed knowledge). Another point that is remarkable is the process of demographic aging (an increase in the number of the elderly people) in the world (especially in developed and developing countries).

In addition to new professions and specialties, the demographic aging process can also create difficulties in the social protection system. Thereby, on the one hand, the increase in the specific weight of the elderly in labour resources and on the other hand, the weakness of their ability to apply modern technologies and of course, the dim learning potential (compared to young people) of these people require significant changes in the education and training technology. Research by the McKinsey Global Institute shows that there are only 285 million elderly people in the together of the United States and 15 EU countries and 100 million of them want to work. (McKinsey Global Institute, 2017)

Researchers have suggested that the demographic aging process can create problems in the social security system (Czaja & Lee 2007, Abdullayeva, Hashimova, 2017). Knowledge acquired as a result of technical and technological renewal, job, professions and specialties will raise the issue of sustainability in education (training). All of this require a change in the demand the period of time in education, innovation, labour market and social policy through 'flexible intervention' and 'incentive mechanisms.' In a such period, it is desirable to find out the increase of effectiveness in the economic and social field and in the proving of the sustainability of reproduction of the human capital (training and education) as taking advantage of 'Industry 4.0' revolution's economic preferences.

Strategy of the sustainability in education (lifelong study) is not the recent years of idea. This idea has been become urgent during the "Industry 3.0" (UNESCO, 1972) stage. At that time, the problem of scientific-technical (technological) growth was weaker than the modern one, so the problem has not been the focus of attention as today. The main reason is the acceleration of technical and technological update, the knowledge and innovation's turning into a leading force in the economy, the automation of hand labour, the rapidness of upcoming knowledge and professions and etc. Generally, education (training) create base for the reproduction of human capital 'flexibility' and increasing effectiveness of using them. At this stage, such a policy should be followed so that economic growth does not deepen social problems.



Kovacs (Kovacs, 2018) rightly believes that the sustainability of 'Industry 4.0' and 'Digital Economy' can only be achieved through comprehensive economic growth and strong social security that guarantees political stability. Directly as the words of Kovacs - "The sustained development of Industry 4.0 and Digital Economy can only be cultivated via inclusive growth that safeguards political stability through strengthened social trust". The solution of the problem is to strive to 'flexibility' and efficiency in the reproduction of human capital (lifelong learning). The human factor stands on even the most sophisticated and complicated technology. Through, it is the person who creates, uses and upgrade technology.

Literature Review

Education generally enacts a key role in the socioeconomic development of the country. Since, education meets needs of people as gaining defined professions and qualifications with a way of moral and intellectual development. (Muradov 2006) In the knowledge-based economy, the demand for education and highly intelligent people has grown up exceptionally. Consistently complicated and updated technologies and equipment, innovative production processes, respectively require intellectual employees. Consequently, the fact that sustainable and quality education in the formation of the knowledge-based economy is extremely important in contemporary society and its political, economic, social, cultural development and due to this, it is one of the generally accepted and non-controversy issues (Muradov, 2017, p 150).

Modern technological advancements are not just about radical changes in science, technology and the structure of the economy, but also in the change of people's lifestyle, outlook. So, modern technology has become an important 'component' of people's lifestyle and economic development. This tendency turns into the inevitable factor of human capital development (It is essential to keep in focus quality of education), intellectual labour and its increasing productivity. Certainly, it is not excluded that 'Industry 4.0' generates specific problems in the society and economy. Researchers (Ancarani, Mauro & Mascali, 2019; Frank, Dalenogare & Ayala, 2019) and politicians also make different assessments of the benefits and losses of the "Industry 4.0" in the perspective of the medium and long term.

There is no doubt, it is indisputable fact of the economic and social advantages of the technological revolution. Unlike economic advantages, controversial ideas are put forward as we have mentioned in terms of social preferences. However, economic benefits and social impacts of technological innovation will not be the same in all countries as our opinion. Whereas the self-regulation potential of the nations is different (Muzaffarli, 2014) and here the potential for adaptation to the changes in society and the implemented policy of 'assimilation' capability plays a crucial role. For example, McKinsey's Paris office in 2011 found that the Internet had resulted in a reduction of 500,000 jobs in France and occurred 1.2 million new jobs. (McKinsey Global Institute, 2017) Each new job requires the adoption of a new profession and qualifications that enhances the importance of sustainable education.

Influence of technological innovation on social security system (Stavnycha & Jasińska, 2018), progress of innovation potential (Muradov & Huseynov, 2013; Babayev & Hajiyevev, 2019).), impact on employment and labour market (WEF, 2016; Harnad, 1991; Silva & Lima, 2017; Odyegov & Pavlova, 2019; Heinrich, 2019) and etc. such as economic and social impacts have been explored in many aspects. All the studies have roughly shown the development of the education system as well as the provision of sustainability of education as a key solution to the problem. It means sustainability of education (especially for those who aged 15-65) at all stages of society is of strategic importance.

Lifelong learning (Korshunov, Gaponova, 2017; Aleandri and Refrigeri, 2013), creating favourable conditions for increasing the knowledge and skills of the workforce have a major importance. In recent years, a sharp growth trend in the direction of Artificial intelligence, Machine Learning, Robotic Process Automation or RPA,



Block chain, Edge Computing, Virtual Reality and Augmented Reality, Cyber Security, Internet of Things and so on tend to increase the importance of 'flexibility' in the sustainability of education (training) and seriously changes the structure of the economy and employment. Let's pay attention some of the fastest growing AI based (Artificial Intelligence) indicators in last years. "Artificial Intelligence" that first appeared in the 50s of the last centuries and related with it 340,000 inventions have been made, more than 1.6 million scientific works have been published (WIPO, 2019, p.13). At present, the US and People's Republic of China are leading in the global AI market. About 41% of global investment in AI belongs to San Francisco (USA). The number of start-ups in this track is increasing. The number of active AI Start-up in the United States has been merely increased by 13% in 2018 compared to 2015 (WIPO, 2019 p.31). During this period VC (Venture Capital) volume increased by 350% in AI (AI Index 2018, p.31). Europe ranks second place in the AI market and predicts to invest 24.4 billion in this field by 2020. China plans to establish AI industry worth 150 billion by 2030(EY, 2019). In recent years, the rate of the robotization in the industry has increased in the world, especially in China. Compared to 2012, an average number of robotized machines in China in 2017 increased by of 500% a year, 105% in South Korea and 122% in Japan.

Experts estimate by the end of 2030; 73 million jobs will be lost in Europe as a result of automation. However, new jobs will also be born together with losing of them. It is believed that the difference between diminished jobs and emerging created ones in the short and mid-term perspective will be great in countries with exactly low level of technological readiness. According to expert analysis, 23 million AI based jobs will be set up in 2020 (Industry 4.0, p.14). According to the calculations of "McKinsey" that jobs in the workplace are fully automated by 5% and partially automated by 60% (McKinsey Global Institute, 2017). All of this proves that sustainability in education is more flexible compared to previous years and clarifies a decisive role in the implementation of the medium and long-term strategy of countries.

Methodology

In this study, 79 countries and 25 indicators were selected that their statistics available to evaluate the social and economic benefits of the lifetime learning period. These indicators are divided into two blocks, that 13 indicators for evaluating social benefits, 12 indicators to assess economic benefits. It is believed that they are important for re-capitalization and economic development of human capital in our opinion. The study also taken into account the expectations of the "Industry 4.0" revolution. In the study, correlations were sought between 25 indicators using the Excel program. The interdependence between the other 24 indicators and the expected lifetime of learning period was analysed. (Table1)

Mutual relationships between expected duration of education and social indicators

Industry 4.0 will accelerate the socio-economic progress of the countries by boosting up the reproduction process of human resources (educational sustainability). That in the 21st century, where the labour market is rapidly becoming intellectual, it is impossible to make a profit without capitalizing on human assets. It is observed in analysis that, there is a growing demand for enriched human capital in the labour market and the parallel ongoing rise in the expected duration of the educational process, as well as the increase in dependence on technical, technological innovations (Industry-4.0) and socioeconomic indicators. Occasionally, there are ideas about technological development and automation that will increase unemployment. It is expected in the medium and long term periods. Despite of that fact, the stratigraphic analysis of 2010-2017 shows that the unemployment rate has dropped dramatically down in some developed and developing economies, although friction of technical and technological development. The number of unemployed has dropped to in Germany - 3.54%, United Kingdom - 3.83%, Sweden -2.17%, Ireland -8.84%, Japan-2.65, World -0.52%. (World Bank Group, 2019).

It dictates that technological advancement has not yet increased the level of unemployment, but rather reduced it. There is pretty growth in the expected duration of education in selected countries and in our opinion, it is directly



related with the reproduction of human capital and the rational use of this capital in the labour market. This tendency is clearly understandable when looking at the dynamics of value added for per person employed. In the majority of the world, there is a growing dynamic in the value added for per person employed. The following diagram proves in the 28 developed and developing countries in 2010-2017, an increase in value added for per person employed in GDP (constant 2011 PPP \$). There has been a sharp decline in Azerbaijan and Hungary. In the analysed countries, the expected duration of education has got on, for example, in Australia 17.4 to 22.9, in Belgium 14.1 to 19.8, in Israel 12.1 to 19.6, in Sweden 12.9 to 17.6. Unless the other indicators are taken into consideration, it makes urgent the sustainability of human capital reproduction in modern age that technological innovation is accelerating and expected period of education has increased. Otherwise, serious problems can be arisen in the field of economic and social wellbeing.

Sustainability of education also occurs in the labour process, along with educational and training institutions. There are a number of intellect weighted fields that are directly involved in ensuring the sustainability of education and some indirectly. In fact, intellect weighted fields and those employed in are involved actually in lifelong learning, practice, and professionalism. Therefore, the development of areas requiring intellectual labour creates great opportunities for sustainability of education.

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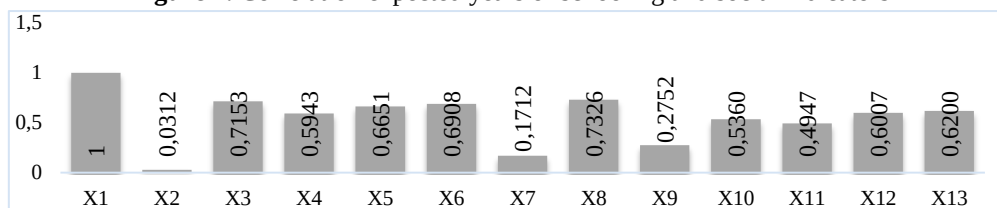
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X_9	0,27 52	0,470 4	0,244 8	0,30 39	0,24 37	0,1 685	0,053 4	0,329 4	1																
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X_{13}	0,62 6	0,004 6	0,683 9	0,53 56	0,46 09	0,6 008	0,137	0,815 2	0,41 03	0,495 6	0,42 5	0,58 94	1												
X_{14}	0,60 57	0,007 5	0,709 5	0,85 73	0,91 7	0,7 024	0,134 4	0,720 4	0,19 42	0,719 1	0,54 5	0,59 37	0,45 29	1											
X_{15}	0,63 52	- 0,000	0,727 48	0,82 55	0,93 171	0,7 171	0,131 1	0,746 8	0,18 96	0,699 6	0,57 6	0,61 06	0,48 67	0,98 63	1										
X_{16}	0,48 19	- 0,024	0,547 7	0,55 33	0,57 61	0,4 776	0,097 2	0,528 6	0,13 17	0,514 5	0,30 6	0,43 76	0,42 1	0,67 74	0,6 764	1									
X_{17}	0,52 23	0,083 4	0,643 4	0,85 24	0,75 51	0,5 666	0,054 1	0,685 7	0,26 41	0,619 8	0,34 6	0,49 74	0,52 02	0,86 07	0,8 444	0,75 01	1								
X_{18}	0,57 09	- 0,078	0,676 2	0,79 23	0,76 05	0,7 102	0,177	0,629 9	0,12 68	0,622 6	0,40 8	0,66 51	0,39 96	0,90 5	0,8 793	0,69 24	0,80 24	1							
X_{19}	0,07 0,047	0,047	0,258	0,64	0,34	0,2	0,075	0,249	0,13	0,414	0,08	0,20	0,09	0,56	0,4	0,29	0,58	0,5	1						

Economic indicators: X_{14} -GDP per capita (current); X_{15} -GNI per capita, Atlas method (current US\$); X_{16} -Manufacturing, value added, per employee (current US\$); X_{17} -Gross value added at basic prices, per capita per employee (current US\$); X_{18} -GDP per capita employed (constant 2011 PPP \$); X_{19} -Commercial service exports, per labour force, (current US\$) per Labour total; X_{20} -ICT service exports per labour force (Bop, current US\$); X_{21} -Research and development expenditure, per capita; X_{22} -Industrial design applications, resident and non-resident, by count per 10000 employee X_{23} -Patent applications, residents and non-residents per 100000 capita; X_{24} -Trademark applications, total per 10000employee; X_{25} -Charges for the use of intellectual property, receipts (Bop, current US\$)



Correlation dependence ($r = 0.0312$) between the expected duration of education and compulsory education (X_1 and X_2) is low. (Figure 1) Compulsory education in countries around the world ranges from 5 to 16 years (most countries over 12 years are economically deprived, even in some countries the expected learning time is less than compulsory). This means that the length of compulsory education is not so important for socio-economic development. In our opinion, it is important to encourage people to get education as voluntarily. In other words, a system should be established between education and the labour market so that people should presume education as a guarantee of their future life. In this regard, the state should develop stimulating and incentive mechanisms. People should choose the profession and specialty they need freely, and it should be created a favourable environment for its market implementation.

Figure 1. Correlation expected years of schooling and social indicators



Source: <https://databank.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/1ff4a498/Popular-Indicators>. 21.07.2019

There is a high correlation relationship (0.7153) between life expectancy at birth and expected lifelong education. It is possible to explain that, if a person spends most of his life to education (voluntarily) is healthier and long-lived or vice versa. In our view, length of the life of people are bounded to the knowledge they gained and its realization is connected to environment, lifestyle and confidence to the future. Trust to the future affects the growth of life expectancy by creating positive energy. Moreover, in modern age, high level of knowledge and professionalism is an important condition for improving the well-being of people. The wage of the labour force included in this category is higher, stimulating and allowing them to steady increase their health conditions and education. Psychological factor should also be carefully considered.

People with low educational background or professionalism level have poor job opportunities, (especially in Industry-3.0 and Industry-4.0) and high risk of job loss due to that by a negative impact on their psychological state, their life length is got shorten. Political tensions, social injustice, and so on as well as factors preventing the sustainability of education. However, this may be the subject of another research.

One of the social situations where correlation is high is between the fixed broadband subscriptions (per 100 capita) (X_1 and $X_8 = 0.7326$) and an expected lifetime of education. Modern ICT systems and access to the global Internet networks have a positive impact on the increase of the duration of lifelong education. At present, distance education in the world, various training programs and the relevance of training information should be regarded as a positive factor in the sustainability of education. In the ICT Development Index, countries with the high level of the expectation of lifetime education is among the top priorities. (ITU, 2017)

There is a poor correlation between mobile cellular subscriptions and labour force with advanced education and the expected lifetime of education. However, the essence consists of per communication tool for mobile communication. It should be borne in mind that modern mobile phones are also "walking internet" and the vast majority of people get access to the internet through mobile phones. There are middle class of correlated relationships among the government expenditure on education, individuals using the internet (% of population), wage and salaried workers and age dependency. Government education expenditures per capita, the number of internet users, and the salaries of the workers in the labour market have a positive impact on the increase of expected lifetime of education. All of these are important in terms of the development of society and in addition

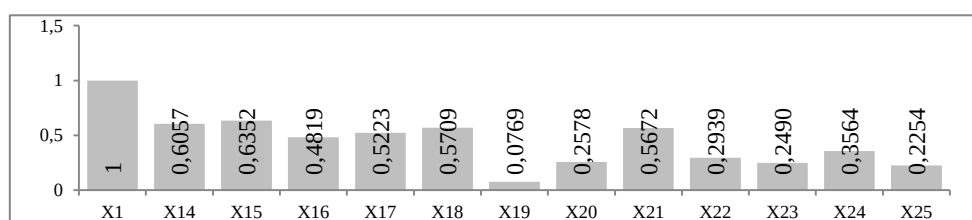


to increasing the social benefits of education, it also gives benefits as economic advantages with raising competitiveness (individuals and states). Thus, by reducing the duration of compulsory education, it is possible to increase lifetime education duration and its social, economic benefits. For example, the reduction of 16 years of compulsory education to 8 years can be raised government education expenditures (in many cases, the quality of compulsory education is low), and the ability to gain contemporary knowledge in a rapidly changing period. In contrast to previous years, the loss of time in knowledge acquisition and use can result in "economic loss" that ultimately can undermine the social benefits of education.

Interaction between expected lifetime education and economic indicators

Increased duration of expected education (unlike compulsory education) has gains for the development of country and individuals. Especially in the condition of Industry-4.0 revolution, the availability of opportunities to increase knowledge and skills of people in accordance with the changing labour market requirements and the flexible, effective state regulation policy can be more useful for economic growth. The flexible regulatory policy in the education and labour market allows the labour force to increase or change their qualifications volunteer. There is a positive correlation science increased of expected sustainability of education in GDP (X_{14}) ($r = 0.6057$) per capita GNP (X_{15}) (X_{14} $r = 0.6352$) per capita, GDP (X_{18}) ($r = 0.5709$) per employee, financing science (X_{21}) ($r = 0.5672$). (Figure 2)

Figure 2. Correlation expected years of schooling (years)



Source: <https://databank.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/1ff4a498/Popular-Indicators> 21.07.2019

The incentive system created in the research and development area accelerates the reproduction of human capital in developed countries. Science is one of the few fields where the sustainability of learning realized. We can also assess these countries as the efficiency of human capital use. Thus, the main component of the national wealth is human capital and the amount of human capital in the national wealth increases regularly. While education increases income, directly multiplied income leads to a healthier lifestyle, longer life and more benefit to the economy of country. Putting the issue in this direction is useful for achieving the goal set by Industry-4.0.

The indexes of sustainability of education expectancy at the Global Innovation Index (GPO, 2017) are high in the top ten countries (other indicators are for 2017, as the GDI 2017 indicators have been used), Switzerland (17.6 years), Sweden (17.6 years), Netherlands (18 years), United States (16.5), United Kingdom (17.4), Denmark (19.1 years), Singapore (16.2 years), Finland (17.6 years), Germany (17.0 years). Global Competitiveness Index (GCI, 2017-2018) first ranked countries: Switzerland 5.9, United States, Singapore 5.7, Netherlands 5.7, Germany 5.7, Hong Kong SAR 5.5 Sweden, 5.5, United Kingdom, 5.5, Japan 5.5, Finland 5.5, Norway 5.4, Denmark 5.4, has also seen the names of the countries that are in the first place in the RIA. This gives clear path that the sustainability of education expectancy is dependent on innovation and competitive economic growth.

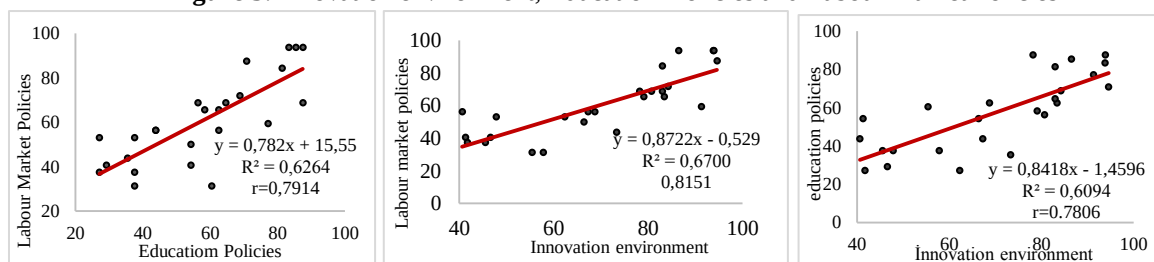
The research has indicated that sustainability of education in the 21st century is crucial as the rapid development of automation, digitalization and artificial intelligence technologies. Particularly, it stands for the basic conditions of innovative and competitive economy establishment. It interprets that the readiness of countries for



automation, digitization, artificial intelligence technology rests just sustainability of education and the process of reproduction of human capital.

The Economist Intelligence Unit has assessed the level of readiness to automation for 25 countries based on 28 indicators (over 100 points) covering the labour market, education policy and innovation environment. Based on the The Automation Readiness Index first ten countries that ranked in top South Korea (91.3), Germany (89.6) Singapore (87.5), Japan (83.7), Canada (82.6), Estonia (80.0), France (79.2), United Kingdom (75.6), United States (72.8), Australia (71.5). (ARI, 2019) The following charts illustrate the relationship between education policy, labour market, innovation environment and labour market policy.

Figure 3. Innovation environment, Education Policies and Labour Market Policies



Source: *The Automation Readiness Index 2019*

The development of innovation products requires competition in the market, increasing flexibility in education and training in the labor market as well as effective state regulation in this fields. Especially in the Industry-4.0 environment special attention to startups and acceleration of artificial intelligence, automation, robotization, digitalization and etcetera are noticeable. In fact, along with other intellectual activities, startups are also important in terms of sustainability of education. The increased attention to Start-ups and the socio-economic benefits of it, make the number of researches in this context grow. CEO World Magazine makes "Most Startup Friendly" Index based on 5 subindices, based on Human Capital Investment, Research & Development, Entrepreneurial Infrastructure, Technical Workforce and Policy Dynamics subindices. Countries in the top ten rankings in this index are also similar to the countries in the HDI and the GRI index (with some exception).

Today there should be a co-ordination between "science-education-industry" that encourages the innovative development of country, people for gaining new knowledge and creating special centers for the acquisition of new knowledge. The effectiveness of the regulation of this process will depend on the degree of its encouragement, stimulation and support rather than administrative methods.

Result

Our main finding in this study is to discover that the duration of compulsory education effects weakly to the social and economic indicators. In recent years, countries have tried to increase duration of compulsory educational. The long period of compulsory education may also be assessed as time loss. This policy must be changed, compulsory education period should be reduced (end of compulsory education by the age of 15), flexible education and training system should be established in accordance with the rapidly changing labor market. Modern people prefer not compulsion, but volunteering.

Research proposes that business environment should be favorable for ensuring sustainability of education and increasing socio-economic benefits and promoting science development, identifying priorities for production and service, so supporting the development of field requiring intellectual labor. In order to have a positive effect on



the well-being of the country and its international reputation, sustainability of education and reproduction of human capital must be provided.

Reference

- Abdullayeva, R., Hashimova, V. (2017) The liberal-administrative level and socio-economic development of the pension system. IS (S) I-2015. The potential of liberalism in the economy. p.136-159
- AI Index 2018 Report. 2018 by Stanford University
- Aleandri, G. and Refrigeri, L. (2013) Lifelong learning, training and education in globalized economic systems: G. Analysis and Perspectives / Procedia - Social and Behavioral Sciences 93 (2013) 1242 – 1248
- Ancarani, A., Mauro, C.D., Mascali, F. (2019) Backshoring strategy and the adoption of Industry 4.0: Evidence from Europe, Journal of World Business, Volume 54, Issue 4, 2019, Pages 360-371
- Babayev, B., Hajiyeve, N. (2019). Building an innovation ecosystem in Azerbaijan - on the basis of the study of israeli practice. 37th International Scientific Conference on Economic and Social Development - Socio Economic Problems of Sustainable Development. Baku, AZERBAIJAN, 2019, p 312-319
- Blossfeld, H.P., & Jutta, M. (2019). Education as a Lifelong Process. 10.1007/978-3-658-23162-0_2.
- Czaja, S.J., Lee C.C (2007) The impact of aging on access to technology ACM SIGACCESS Accessibility and Computing 5(4): 341-349 March 2007. DOI: 10.1145/1102187.1102189
- Duggal, N. (2019) 8 Top Technology Trends for 2019 and the Jobs They'll
- EY-Mint Emerging Technologies Report (2019) Emerging Technologies: Changing how we live, work and play 2019
- Frank, A.G., Dalenogare, L.S., Ayala, N.F (2019) Industry 4.0 technologies: implementation patterns in manufacturing companies, International Journal of Production Economics (2019).
- GCI, (2017-2018) The Global Competitiveness Report 2017–2018.
- GII, (2017) Global Innovation Index 2017
- Harnad, S. (1991) Post-Gutenberg galaxy: The fourth revolution in the means of production of knowledge. Public-access computer systems review 2.1 (1991): 39-53.
- Heinrich, M. (2019) Industry 4.0: How it will affect employment and what skills will be required to match the requirements of the market, April 2018
- Industry 4.0. (2015) A Discussion of Qualifications and Skills in the Factory of the Future.
- ITU, (2017) Measuring the Information Society Report 2017 Volume 1, International Telecommunication Union Place des Nations, Switzerland
- Korshunov, I., Gaponova, O. (2017) Lifelong Learning in the Context of Economic Development and Government Effectiveness. Voprosy obrazovaniya / Educational Studies Moscow. 2017. No 4. P. 36–59
- Kovacs, O. (2018), The dark corners of industry 4.0 – Grounding economic governance 2.0. Technology in Society (2018), McKinsey Global Institute (2017) Technology, jobs, and the future of work. May 2017
- Muradov A. (2017) Building knowledge economy: opportunities for liberal and conductor models. IS (S) I - 2015: Economic potential of liberalism (with Nazim Muzaffarli's scientific editorial note) p. 106-138
- Muradov, A., Hasanli, Y., Musayeva, F. (2019) Estimation Of The Education Influence On The Population Income. Economic and Social Development (ESD 2019): 37th International Scientific Conference on Economic and Social Development - Socio Economic Problems of Sustainable Development. P 593-602
- Muradov, A., Huseynov, R. (2013) Peculiarities of economic development on the basis of innovation and innovation potential. Conference: Technology Transfer and Innovations, 2nd Annual Conference & Networking, October 29-30, 2013,
- Muzaffarli (İmanov), N. (2014) The social dimension of the economy in right and left systems. Baku, East-West Publishing House, 2014, 272 p.
- Odyegov Y. G., Pavlova V. V. (2019) The Transformation of Work: Sixth Technological Way, Digital Economy and Trends in Changing Employment // Level of Life of the Population of Regions of Russia. 2019. no. pp. 30-41.



- Rizvi, S., Rienties, B., Khoja, SA (2019) The role of demographics in online learning; A decision tree based approach. V 137, p. 32-47
- Silva, HC., Lima, F. (2017) Technology, employment and skills: A look into job duration/ Research Policy Volume 46, Issue 8, October 2017, Pages 1519-1530
- Stavnycha, N., Jasińska J. (2018) Fourth industrial revolution and its influence on social security of the state. World Scientific News 104 (2018) 34-44.
- The Automation Readiness Index: Who is ready for the coming wave of automation? is an Economist Intelligence Unit report, commissioned by ABB.
- The World Bank Group (2019). <https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS?view=chart>
- UNESCO (1972) Edgar Faure, Learning to be: The world of education today and tomorrow.
- WEF (2016) Global Challenge Insight Report. The Future of Jobs. Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution/ Global Challenge Insight Report, January 2016
- WEF-2018. The Future of Jobs Report 2018,
- WIPO (2019) Technology Trends 2019. Artificial Intelligence.



Azerbaijan - Russia Tourism Relations: Problems and Perspectives

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Abstract

In recent years, there has been a sharp struggle between the countries for the selection of target markets in the field of tourism. One of the main ways to excel in this fight is to increase the attention to research in this direction. Russia is one of the main target countries in increasing the number of tourists visiting Azerbaijan. Azerbaijani-Russian relations have deep historical roots. Many factors play a role in the choice of Russian tourists to Azerbaijan. The steps taken in recent years to expand the legal framework of economic and humanitarian cooperation between Azerbaijan and Russia lay the foundation for the development of tourism relations. It is no coincidence that the number of tourists coming to our country is dominated by Russian citizens. But despite this, Russian tourists mostly visit the republics of Turkey and Georgia. In this regard, there is a need for a deeper study of the Russian tourism market. In particular, there is a great need for Azerbaijani tourism companies to conduct marketing research in Russia. The mentioned points were widely commented in the article. At the same time, it was attempted to identify the factors affecting the needs of Russian tourists. The role of the transport sector in the development of tourism relations between the two countries and the innovations to be implemented are also reflected in the article

Keywords: Tourism relations, Tourism companies, Advertising, Air transport.

Introduction

Relations between Azerbaijan and Russia cover a long historical period and centuries. These two countries, Azerbaijani and Russian people are connected not only by borders, but also by historical, political, cultural and social ties. With the emergence of new independent states as a result of the collapse of the Soviet Union, the Caucasus region, which for a long time remained outside the world politics, became the focus of attention not only of the countries of the world, but also of influential participants in international processes. The former republics of the Caucasus, as the subject of international law, declared their national interests and foreign policy priorities. The formation of independent states in the South Caucasus necessitated the search for new ways to ensure regional security and a new format of international cooperation. Starting from the first years of independence, Azerbaijan began to attach special importance to the expansion of relations at the international level.

There is no culture in the world today that will not be affected by the universal factors of globalization. However, at the present stage, geographical proximity and regionalism are still the criteria for human development in economic and cultural relations. A vivid example of this is Azerbaijan-Russia cultural and economic relations on the basis of political dialogue and good neighborhood.

Centuries-old relations between the two countries give an impetus to the proper dissemination of national cultures and tolerance. Under the current circumstances, Azerbaijani-Russian relations are based on a fairly solid and equal legal framework. Azerbaijan is one of the world's region with rich historical and cultural values. It is considered one of the main centers of civilization, it is possible to observe various stages of development of society here.

Economic and trade relations with the Russian Federation are gradually developing. Russia is one of our most important foreign trade partners. Mutual investment between the two countries is at the level of billions of dollars. Trade turnover between Russia and Azerbaijan in 2018 has increased by about 14 percent and reached \$ 2.4 billion. There are about 700 companies with Russian capital in Azerbaijan. 30 percent of them work with 100 percent Russian capital. Azerbaijan has invested 1 billion dollars in the Russian economy and Russia has



invested US \$ 4 billion in the economy of Azerbaijan. Russia's exports to Azerbaijan increased by 12.5 percent and reached \$ 1.7 billion in 2018.

The economic development indicators of both countries are reflected in the annual reports of influential international organizations. Thus, in the Doing Business 2019 report released by the World Bank on October 31, 2018, Azerbaijan was included in the list of 10 most reformist countries in the world and became the most reforming country in the world. According to the new report, Azerbaijan's position has reached the 25th place among 190 countries by 32 points compared to 2017, leaving behind many countries of the world, it has become a leader among CIS (Commonwealth of Independent States) countries (<https://www.doingbusiness.org>).

Azerbaijan is the second country in the post-Soviet space and the first in the CIS for the level of Doing Business Reform. These reforms were carried out by the political will of the head of our state. Azerbaijan is the fastest growing country in the CIS. Our country has moved 32 steps in the Doing Business report from the 57th to the 25th. Russia moved 4 points from 35th to 31st in comparison with the previous year (<https://www.doingbusiness.org>).

It was discussed the prospects for the development of relations between Russia and Azerbaijan on the third day of the Petersburg International Economic Forum (PBIF), which was held in Saint Petersburg, Russia on June 6-8, 2019. The parties discussed the development of relations in the fields of agriculture, tourism, energy and the implementation of major infrastructure projects. At the meeting, the ministers of economy of the two countries, as well as the heads of the bilateral intergovernmental commission – Maxim Oreshkin and Shahin Mustafayev assessed the current situation and determined the tasks for the near future (<https://sputnik.az/economy/azerbaycan-rusiya-iqtisadi-elaqreleri.html>).

It should be noted that Russian companies have a share in several international organizations by joining Azerbaijan's oil and gas projects.

On February 18, 1996, an agreement was signed on the transportation of Azerbaijani oil through the territory of Russia to the Port of Novorossiysk on the Black Sea coast. The contract signed between SOCAR, AIOC and Transneft reflected the Baku-Novorossiysk oil pipeline in all technical and legal issues ensuring the transportation of Azerbaijani oil to Novorossiysk Port.

The parties are updating the infrastructure at the border crossing, implementing transport projects and planning the transition to the electronic customs system, which facilitates export and import operations. It should be noted that the agreement on free trade between the countries has greatly improved the convenient transportation of goods. Through the north-south corridor, Russian products are delivered to Iran from the territory of Azerbaijan, as well as Iranian products in the opposite direction. It should be noted that over the past year, the turnover of goods through this corridor has increased up to 8 times.

There is a good potential for the expansion of economic and cultural relations between different regions of Russia and different regions of Azerbaijan, which should be used effectively.

In this regard, Azerbaijan has established foreign trade relations with more than 30 regions of the Russian Federation. The governments of Dagestan, Tatarstan, Kalmykia, Moscow, Yekaterinburg and Saratov, Smolensk, Astrakhan and Saint Petersburg have signed agreements on cooperation in trade, economic, scientific, technical and cultural spheres (Rzayev and Jabbarov. 2011).

Relations between Azerbaijan and Russia are consistently developing along a stable and growing line at the present stage. One of the main directions of these relations is education and humanitarian projects.

More than 11,000 Azerbaijani students continue their education in Russia. About a thousand of them are financed by the Federal budget of Russia. Every year more than 200 scholarships are awarded to Azerbaijani students.

The Azerbaijani state attaches great importance to the Russian language. There are more than 340 schools in Azerbaijan, where education is conducted in Russian, and there are also two branches of well-known Russian universities in Azerbaijan.

According to the Order of the President of the Republic of Azerbaijan dated January 15, 2008, Baku branch of Moscow State University named after M.V. Lomonosov, one of the leading universities in the world, started its activities in Baku. On September 26, 2012, the new educational building of the branch was put into operation. It



was inaugurated the Baku branch of the First Moscow State Medical University named after I. Sechenov in September 2015.

More than 400,000 ethnic Russians live in Azerbaijan. This is the largest Russian diaspora in the South Caucasus, which has preserved its ethnic values, culture, language and religion. Great attention is paid to Russian culture and Russian language in Azerbaijan at the state and public level. Interethnic peace and interreligious dialogue form the basis of Azerbaijan's successful development. According to estimates, about 2 million ethnic Azerbaijanis live in Russia. The above describes the prospects for the development of tourist trips between the two countries.

The signing of the convention on the legal status of the Caspian Sea can serve as an additional incentive for the development of the tourism sector in the country. In particular, this agreement will allow us to work in cooperation with other Caspian countries in organizing joint tours, for example, organizing sea trips. However, the Caspian is still at the stage of the project, if the issue on cruise tourism in the Caspian Sea is resolved this year, this type of tourism can become popular only in 2020.

Azerbaijan invests heavily in the construction of sanatorium-tourist center "Istochnik" located in Yessentuki, as well as sanatorium-resort hotels located in the towns of Jeleznovodsk and Kislovodsk, as the Azerbaijani tourists love to relax at the resorts of the Caucasus Minerals. Azerbaijanis who go to the Caucasian sanatoriums of Russia for treatment, spend more than 2,000 US dollars each time. As a result of the research, it turns out that more than US \$ 20 million is transferred to Russia every year, thanks to the tourists' visit to the Caucasian Mineral Resorts for treatment.

Today, tourism is considered one of the most promising areas in Azerbaijani-Russian relations. The parties cooperate within the framework of the Tourism Council of CIS member states and the World Tourism Organization. There is a great potential in this area, which conditions the development of complex relations between the countries. In this regard, Azerbaijan's tourism representative office has been opened in Moscow. This decision is of strategic importance, which allows for a wide exchange of information on the tourism markets of the partner countries and provides a basis for supporting tourist trips in both directions.

Azerbaijan is successfully represented at the MITT International Tourism and Travel Exhibition in Moscow every year. This plays an important role in promoting Azerbaijan's tourism potential in Russia.

In 2005, Russian President Vladimir Putin signed a decree on simplifying the visa regime with CIS countries. According to this order, the visa procedure was fairly simplified and almost every tourist provided a visa at the international airport directly. Russia and some CIS citizens do not need visas to stay in Azerbaijan for 90 days. Also, the entry of Russian citizens into the territory of Azerbaijan is only possible if there is an international passport valid for the whole period.

It should be noted that the visit of Russian tourists to Azerbaijan is mostly accompanied by health and sightseeing tours, as well as increased interests of corporate clients. At present, there are many big chain hotels in Baku: Fairmont, Fourseason, Hilton, Radisson, Marriott and they host almost any number of business events. According to the close ethno-demographic and historical ties between Russia and Azerbaijan, 73% of Azerbaijani citizens going to Russia aim to meet with relatives, belongings and friends. 17% of the total flow is business and professional goals, 10% are related to health, leisure and entertainment. Compared to the world level, these figures differ considerably, in general, 51% of tourists travel for leisure and entertainment purposes.

Purpose of the Study

The main purpose of the research is to include the following topics:

- Determining the main internal and external factors that identify the structure and volume of the tourist flow.
- Analyzing and defining advantages and disadvantages in tourism, including historical, economic, political, structural and social factors.
- Selection of general and distinctive features of development of tourism sectors of Azerbaijan and Russia.
- SWOT analysis of tourist sectors.
- Submission of proposals on opportunities and directions of tourism development.



Materials and Methods

Data for the implementation of this study were obtained from the reports of the Federal State Statistical Service of the Russian Federation, the State Statistical Committee of Azerbaijan. Monographic, logical and constructive analysis, SWOT analysis are used as the main research methods.

Research Findings and Discussion

In order to obtain objective information and conduct comparative analysis, the State Statistical Service of the two countries should use the methodology developed by UNWTO (World Tourism Organization). Geographical location is one of the main factors determining the structure and volume of tourist flows.

At present, the tourism industry of Azerbaijan and Russia is at the stage of development, which should be noted that these countries are geographically located in the neighboring region, have similar environmental, economic and organizational problems, but there are differences to be considered as well. They have been taken into consideration when examining various aspects of these countries.

It should be noted that in recent years, the government of Azerbaijan has declared the development of tourism a priority and made a number of important decisions in this direction. Among them, the most important is the strategic road map for the development of the specialized tourism industry, approved by the decree of the president of the country dated December 6, 2016. The document outlines the development of tourism in the country by 2025. The document envisages the selection of countries (Russia, Turkey, Iran and Georgia) as target markets and the implementation of a number of projects for the further development of tourism relations with these countries. It is noted in the document that by 2025, Azerbaijan will become one of the attractive tourism destinations of the region and the world with proper use of existing tourism opportunities (https://mida.gov.az/documents/Turizm_sənayesinin_inkişafına_dair_strateji_yol_xeritesi.pdf).

According to the World Travel and Tourism Council, the tourism sector in Azerbaijan accounts for 2.8 per cent of direct GDP and 2.6 per cent of employment, which differs slightly from the world average of 3 per cent direct GDP and 3.6 per cent direct employment (https://mida.gov.az/documents/Turizm_sənayesinin_inkişafına_dair_strateji_yol_xeritesi.pdf).

Inbound tourism as a service traded across borders has emerged as one of the world's important trading categories, with tourism exports accounting for as much as 30 percent of the total exports of commercial services in the world (Tan Khee Giap and others, 2016). Beyond economics, tourism policy that is designed to market the distinctiveness of local traditions and culture can pave the way for better cultural exchanges between countries which can in turn foster bilateral relations between countries (Tan Khee Giap and others, 2016).

The demand for the Azerbaijani tourism market from abroad is mostly from such countries as Russia, Turkey, Georgia and Iran. More than 100,000 tourists visit Azerbaijan each year from each of these countries. The main reason for the high tourist flow from these countries to Azerbaijan is the presence of similar cultural values, geographical proximity and ethnic Azerbaijanis. In general, Azerbaijan, as one of the most important tourist centers in terms of tourist flows from these four regional states, is considered one of the main rivals of Turkey and Georgia.

At the same time, the number of tourists visiting from Georgia to Turkey was about three times higher than the number of tourists visiting from Georgia to our country, and the number of tourists visiting Turkey from the Islamic Republic of Iran was about 10 times higher than the number of tourists visiting Azerbaijan from this country.

The migration of Azerbaijanis to foreign countries dates back to the beginning of the Middle Ages. So far, about 10 million Azerbaijanis live in five continents as migrants. Among them, there are people who actively participate in the public and political life not only of the countries in which they live, but also of Azerbaijan. Only in 50 cities of the former USSR, in more than 170 universities, 150 thousand Azerbaijanis received higher education in 250 specialties. More than half of them remained in the same place without leaving their homeland after graduating from these universities (Ibrahimov, 2006).



Considering that there are currently two million ethnic Azerbaijanis living in Russia, tens of millions in Iran and more than half a million in Georgia, it is possible to see the potential to attract more tourists in the coming years than in other countries (https://mida.gov.az/documents/Turizm_sənayesinin_inkişafına_dair_strateji_yol_xeritesi.pdf).

In order to better understand the situation in the sphere of Azerbaijani-Russian relations, it is necessary to conduct a SWOT analysis.

Table 1. SWOT-analysis of Azerbaijan-Russia relations in the field of tourism

Strengths • Having a large number of Russian tourists who want to travel to Azerbaijan. • The country, which has a special interest in Russian tourists, has rich cuisine, cultural-historical and natural heritage. • Fascinating nature. • Miracle naphthalene oil. • Caspian Sea coastline with a length of 750 km. • Political stability and the country's security level. • Increased per capita income of the country's population, national currency stability. • Identifying tourism as one of the priority areas of the state. • Geographical, political and historical relevance.	Weaknesses • Insufficient development of tourism infrastructure in most regions of the country to attract Russian tourists. • High cost of accommodation, food, transport and other services in hotels offered to tourists is well above average European level. • Shortage of qualified personnel that determine the low level of service in all areas of the tourism industry (especially in regions with a small number of fluent Russian speakers). • Insufficient public non-commercial advertising on the country's tourism opportunities. • Presence of deficiencies in Environmental Protection. • The concentration of tourism enterprises mainly in Baku. • Travel to the regions is possible mainly by road (lack of rail and water infrastructure, as well as flights). • Insufficient statistical database to conduct analysis on tourism sector
Opportunities • Promotion and informative incentives for the formation of an image of a favorable country for tourism in international and domestic tourism markets. • Improvement of the legal framework in the field of tourism. • Creating new priority tourism centers. • Improving the quality of tourism and related services. • Creating conditions for personal safety of tourists. • Development and improvement of tourism infrastructure (transport, catering, entertainment industry, etc.). • Raising the professionalism of employees. • Creating and improving new tourism products. • The country has valuable resources such as Naftalan oil and Duzdagh. • Private sector tourism support within public-private partnerships.	Threats • Nagorno-Karabakh problem. • The existence of a conflict zone, centralization, fragmentation and separatist principles. • Foreign threats that may arise depending on the country's geopolitical position. • Domestic and foreign market deterioration, slowdown in economic growth, investment activity level, high inflation, probability of a banking crisis. • The lack of proper budget funding in the event of a budget deficit.

One of the main indicators of the attractiveness of the country in terms of tourism is the volume of flowing tourists coming and going throughout the country. Lack of visa and language problems between the two countries contributes to the growth of reciprocal tourist visits. As can be seen from the table, the number of Russian tourists visiting Azerbaijan increased by 1.7 percent in 2018 reaching 748,000 in 2017 (Table 2).

The rich natural and cultural-historical heritage of the country forms the basis for the sustainable development of inbound and domestic tourism in general and for social tourism all the more (под ред. Е.Л. Писаревского, 2014). According to the Federal State Statistical Service (Rosstat), the total number of foreign tourist visits to Russia in 2018 increased by 24 million 551 thousand, by 0.7 % (161 thousand visits) compared to 24 million 390 thousand tourist visits in 2017.



Table 2. Number of Russian citizens traveling to foreign countries in 2018 in comparison with the same period of 2017 (thousand people)

	2017 January-December	2018 January-December	Change in the number of Russian citizens visiting foreign countries in 2018 compared to 2017 (+ - %)
Total	39629	41964	5,90
countries from them:			
Turkey	4520	5719	26,53
Abkhazia	4344	4496	3,38
Finland	3333	3361	0,84
Kazakhstan	2978	2955	-0,77
Ukraine	2283	2290	0,31
People's Republic of China	2003	2018	0,75
Estonia	1728	1798	4,05
Germany	1229	1297	5,53
Georgia	1003	1233	22,93
Thailand	1094	1173	7,22
Italy	893	1086	21,61
Spain	929	961	3,45
UAE	766	941	22,85
Cyprus	869	826	-4,95
Greece	856	808	-5,61
Azerbaijan	736	748	1,65
Lithuania	638	635	-0,47
Tunisia	520	611	17,50
Vietnam	512	531	3,71
Czech Republic	499	494	-1,00
France	471	476	1,06
Bulgaria	482	437	-9,34
South Ossetia	420	436	3,81
Armenia	368	434	17,94
Latvia	379	418	10,30
Israel	359	356	-0,84
United Kingdom	255	252	-1,18
Austria	248	249	0,40
Other states	4914	4925	0,23

Source: The table is based on the data of the Federal State Statistical Service of Russia.

Statistical data shows that this increase was mainly due to the tourists coming from Southeast Asia, participating as a participant and spectator in the 2018 World Cup in Russia. Thus, according to the statistics of football matches 3,031,830 spectators attended at the 2018 World Championship (during the period from 14.06.19-15.01.2018) (<http://turstat.com/tag/chempionat-mira-2018>).

According to TourStat, in 2018, 1.69 million tourists from the People's Republic of China visited Russia, which increased by 14% (+212 thousand) compared to 2017, and South Korea showed a huge increase with 361 thousand (+ 42%, +107 thousand) tourists. Among the leaders of the growth of tourism in Russia in 2018, it can be shown India (86 thousand visits, + 21%), Vietnam (54 thousand, + 26%), Thailand (54 thousand, + 20%), USA (326 thousand trips, + 16%), Australia (66 thousand, + 40%) and Canada (58 thousand, + 14%) (<http://turstat.com/tag/chempionat-mira-2018>).

The modern consumer becomes more active, and the active consumer begins to determine the process of service. In turn, companies use a variety of effective communication methods to build long - term relationships with customers and purposefully resort to mutual marketing to create a new consumer value-impression. Only with the close cooperation of the buyer and seller, new unique tourist products are created, which the visitor will remember for a long time. In such cases, the visitor earns the best customer experience and the company is gaining competitive advantage (Sarancha M.A. 2011).



In modern times, politics, business, and business people's close health and lifespan are among the key features of society's development. The importance of health tourism, which is a successful synthesis of travel and treatment, is considerable.

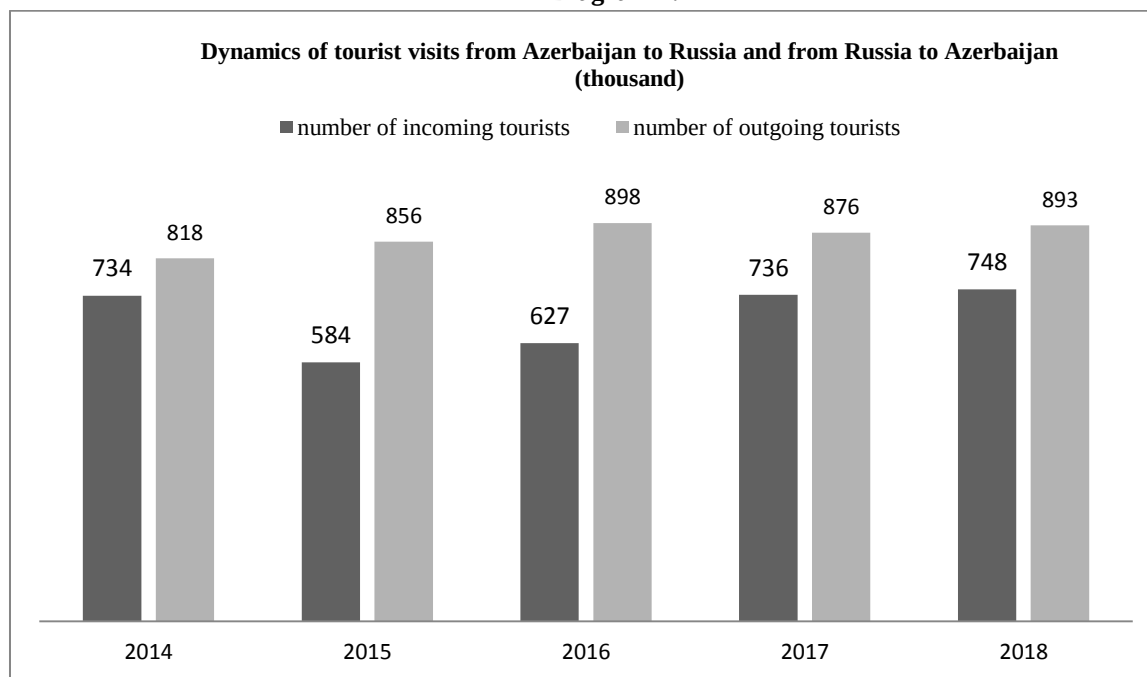
It should be noted that at present, Russian tourists are in great need of visiting health and sights of Azerbaijan, corporate clients have also a growing interest (Huseynov, 2014).

Like all countries that are interested in developing medical-health tourism through economic opportunities and at the same time receive income from the development of tourism, we have a wide range of opportunities in this field.

The use of the famous Naphthalan oil and salt at the level of modern requirements for the healing properties of underground salt mines is still an actuality today.

In general, during the Soviet Union, more than a hundred thousand people came to Naftalan from different republics for treatment purposes every year. Naftalan can treat various diseases, including: diseases of the musculoskeletal system, skin diseases, diseases of the female and male genital organs, diseases of the gastrointestinal tract and circulatory system. Naftalan improves blood flow around the wound by dilating the blood vessels. Patients with stomach ulcers of the intestine fully recover within 18-20 days of taking therapeutic naften oil.

Diagram 1.



Source: the table is based on data from the Federal State Statistical Service of Russia. Rosstat.

As can be seen from the table, if the number of tourists coming from Russia to Azerbaijan increased by only 2% in the last 5 years, on the contrary, the number of outgoing visitors increased by 9.2%. As it seems, the growth dynamics of tourists from Russia is low.

The main needs of Russians in tourist trips can be attributed to the following:

- To visit rich historical and cultural monuments of the world;
- Taking advantage of the sea-sun-sand trio during the season;
- Take advantage of health tourism;
- Be in contact with live nature;



➤ Make shopping. (Şen, 2008)

The following explains the main reasons why Russian tourists travel less often to Azerbaijan compared to rival countries:

- ✓ The price of the tourist product compared to the competitors being expensive. In particular, the cost of air tickets is expensive;
- ✓ Lack of the necessary level of tourism opportunities in the country;
- ✓ Lack of a wide range of products tourist attraction;
- ✓ Lack of direct flights to a number of regions;
- ✓ A small number of major tour operators in Azerbaijan engaged in tourism.

Signing of the agreement on cooperation in the field of tourism during the meeting of the presidents of Azerbaijan and Russia at the "Bucharov Rochei" state residence in Sochi on September 1, 2018 will give impetus to the rapprochement of the two countries in this area.

Recommendations

Azerbaijan and Russia should increase the advertising of Azerbaijan as a tourist destination not only in Moscow, but also in the regions of Russia. Russia is a huge country with a significant population. The countries of the region are fighting against Russian tourists. Therefore, it is necessary to actively promote the tourism potential of Azerbaijan in Russia, especially in the regions of the country. Direct flights between the regions of Russia and Azerbaijan should be developed at an affordable price. At the same time, to create charter flights, it is necessary to attract special capital. For this, it is important first to conduct a good advertising-promotion work, explore the market and analyze the interests.

In order for tourism to be sustainable, the expectations of supply (local people, environment, business administration, employees, natural resources, etc.) and demand (tourist) parties must be met at an optimal level (Zeki Akinci and others, 2018). It is recommended to consider the possibility of establishing vocational education centers in the field of tourism and recreation cluster, where investment flows are expected. At the same time, these programs should be coordinated at the regional level.

Within the framework of sustainable tourism concept, new projects aimed at increasing the number of environmentally sensitive tourism facilities and it should be developed increasing their professionalism.

In addition to the mentioned, the following can be recommended:

- The framework of legal regulation in the field of tourism should be improved
- It is necessary to significantly increase the advertising and promotion of the Azerbaijani tourist product in Russia, which makes it more recognizable and attractive.
- Development of standards, new approaches and their application in the service sector;
- Determination of the legal status of tourism and recreation areas of the republic;
- The use of a national approach to the development of tourism, taking into account the peculiarities of different regions of Azerbaijan in relation to local food and folk art;
- Close cooperation with Russian tour operators.
- Direct flights between Russian and Azerbaijani destinations need to be developed.

References

- Ibrahimov N.H., "Azerbaijani Diasporas: the beginning of the great road". Baku: Chashioglu, 2006.
- Huseynov Shahin Rahim, Russian Economic University named after Plekhanov G.B. Text of scientific articles on specialty "*Economics and Economic Sciences*", Moscow. Prospects of improvement of Azerbaijani-Russian tourism relations, 2014. Internet: <https://cyberleninka.ru> (access date: 25 July 2019)
- Pisarevsky E.L. Fundamentals of tourism: textbook / group of authors; under the editorship of E. L. Pisarevsky. Moscow : Federal Agency for tourism, 2014.
- Rzayev M.G, Jabbarov A.Kh. Tourism and modernity. — Nakhchivan Autonomous Republic, Azerbaijan, 2011



- Sarancha M.A. Potential and organization of tourism development in the Udmurt Republic: geographical analysis and assessment based on geographic information systems: a monograph. - Izhevsk: Udmurt University Publishing House, 2011.
- Shen, Current status of Turkish-Russian Economic Relations, Problems and Perspectives, 2008.
- Tan Khoo Giap, Sasidaran Gopalan and Ye Ye *Drivers of Growth in the Travel and Tourism Industry in Malaysia: A Geweke Causality Analysis* Journal: Economies, 2016 Pages: 1-15
<https://www.econstor.eu/bitstream/10419/167733/1/856423440.pdf>
- Zeki Akinci, Gulseren Yurcu and Yakin Ekin *Relationships between Student Personality Traits, Mobbing, and Depression within the Context of Sustainable Tourism Education: The Case of a Faculty of Tourism.* Journal: Sustainability, 2018. www.mdpi.com.
- [https://mida.gov.az. documents Turizm sənayesinin inkişafına dair strateji yol xeritesi.pdf](https://mida.gov.az/documents/Turizm_sənayesinin_inkişafına_dair_strateji_yol_xeritesi.pdf) (access date: 06 July 2019)
- <https://sputnik.az/economy/azerbaycan-rusiya-iqtisadi-elaqreleri.html> (access date: 08 June 2019)
- <http://turstat.com/tag/chempionat-mira-2018> (access date: 26 July 2019)
- “The World Bank” Internet: <https://www.doingbusiness.org> (access date: 24 July 2019)



Education and Tourism: Aspects of Interaction on the Example of Azerbaijan

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Abstract

Tourism worldwide is considered one of the most significant sectors of the economy. With the transition to market relations in Azerbaijan, it became clear that without highly qualified, cultural, knowledgeable personnel, profound qualitative changes in the tourism industry are unthinkable. Tourism is a complex process based on science, culture and education. From the beginning of the 90s, on the basis of the old excursion system, tourist organizations of various forms of ownership began to be created, mainly engaged in outbound tourism. At present, in Azerbaijan, the problem of compliance of the level of professional competence of personnel with the development of material and technical base and advanced service technologies of tourism and hospitality enterprises has been actualized. The importance of professional training of relevant personnel and their compliance with the qualification requirements is now difficult to overestimate. It is obvious that the further discrepancy between the level of personnel training and the expectations of the target market audience can be a significant deterrent to the development dynamics of the entire domestic tourism and hospitality industry. In this paper, the importance of tourism for the individual, society and the state, issues of training personnel for the tourism sector and a number of problems of training personnel facing the industry in Azerbaijan are touched upon. The article also reveals the causes and forms of interaction between education and tourism, as well as the results of their synergy. A methodical approach to the definition of educational tourism is proposed. The contribution of the tourist industry (theme parks) to the development of the theory and methods of active learning is highlighted. The possibilities of using pedagogical technologies in the promotion of tourist products are shown.

Keywords: Tourism, Education, Educational technologies

Introduction

The sphere of business and scientific tourism in the Republic of Azerbaijan is quite young and therefore is developing rapidly. Especially interesting, in terms of growth and profitability, are currently business, scientific, event kinds of tourism. It requires a wide infrastructure, a high level of service and, of course, a systematic and planned event-activity, in order for the MICE sector of the tourism industry to develop further.

There are all opportunities for the development of this direction in Azerbaijan. Competitive advantages of the state in the field of MICE-industry are industrial and scientific development, high entrepreneurial activity, unique climatic conditions, rich cultural heritage, developed resort network. Throughout the last significant positions in popularity among foreign tourists are the ski-mountain resorts of Azerbaijan, unique "oil" sanatorium Naftalan, Nakhchivan salt mine etc.

Method

In the course of the study, general scientific research methods were used such as methods of deduction and induction, comparative analysis, synthesis, as well as method of scientific review of the source base.

The Main part

Tourism industry is priority for social and economic development of the country which enters for several last years in the top-10 countries, in terms of development's rates of entrance tourism (UNWTO, 2019). According to the State Agency on Tourism of Azerbaijan, in 2018 the country was visited by more than 2.8 million foreign tourists that is 6% more, than it was recorded in 2017. About a third of all foreign tourist flow fell on the Russian market: 878 thousand tourists. At the same dynamics of the Russian market relatively was 2017 only 3%. For



comparison, in Georgia following the results of 2018 the announced growth of tourist flow from the Russian Federation by 24% (1.4 million people), in Armenia the following results of the first 9 months 2018 reported about 16% increase in the Russian arrivals (State agency on tourism of Azerbaijan, 2019). In general, in the whole country, in the structure of attendance the largest specific weight is shared by Russia, the CIS countries, the Middle East.

Tourism in the Republic of Azerbaijan is one of the sectors of the economy that has been developing rapidly in recent years. This is facilitated by the unique natural conditions of the country. Of the 11 existing climatic zones of the planet, 9 are represented on the territory of Azerbaijan, ranging from subtropics to Alpine meadows.

In addition to the natural diversity, the country is rich in historical monuments – more than 6 thousand cultural monuments, each of which is amazing, allowing people to touch the past and learn the culture (Hasanov, 2013). In terms of business tourism, as a whole, the investment attractiveness of regions of the country which experts estimate as rather high increases. According to the Concept of development "Azerbaijan – 2020: a prospection", the country in the next decade has to become the all-weather international center of business, event and educational tourism. The social and economic transformations which happened for the last 15 years turned Baku into the city of the European standards and one of the business centers of the Caspian region. All this is shown in infrastructure of the capital of Azerbaijan, hotel fund, etc.

The attention of foreign tourists is drawn not only by Baku, but also other cities and natural sights. Actively there is a process of formation of the regional tourist areas oriented on the foreign tourists' flows from various countries. Improvement of the infrastructure providing, the expansion of the information technologies' use in regions of the country, formation of the regional centers of development taking into account competitive advantages of tourist and recreational areas, territorial and production clusters in the priority industries becomes one of the strategic directions of Azerbaijan economy's development (Azerbaijan – 2020: future call, 2019). Thus, the regions and cities of the Republic of Azerbaijan have great prospects for the development and organization of the international excursion activities. As for business, scientific and event tourism, it is also actively developing. This is evidenced by major business exhibitions and forums, international sports competitions, scientific events held in major universities of Azerbaijan: the Azerbaijan University of Economics, the Baku State University, the Azerbaijan State Oil Academy.

In 2006 at the Ministry of Culture and Tourism of the Azerbaijan Republic the higher school educating in the field of tourism – the Azerbaijani Institute of Tourism was created (later – the Azerbaijani University of Tourism and Management). Annually the higher education institution lets out about 300 experts of the top skills in the field of tourism, many of which pass a training in the best hotels of the world. AIT closely cooperates with the foreign universities – the University of applied sciences Vilkhelmshaven (FHOOW) of the city of Oldenburg (Germany), the American university Girne (Cyprus), the East Mediterranean University of Northern Cyprus, the University of Hawaii (USA), the State Technical University of Tourism of the city of Astrakhan, the Moscow State Humanities University. Within the program developed by the European Union for mutual exchange of students, 16 students of the institute undertake practice in the countries of Europe, Asia, the CIS. In the same time students of said countries study in Azerbaijan (Azerbaijani university of tourism and management, 2019).

Training of specialists at the university is conducted on a modern basis, with orientation to practical activities. By means of programs of training and the practice the strong partnership of AUTM (ATMU) with the highest level hotel complexes was established: Baku, Hilton, LW Marriott Absheron, Intourist, Ramada, Point Point, Landmark, Pullman, Grand Hotel, etc. Such companies and the organizations as Staybridge, Winter Park, Millennium, Tourism as Atlas, the Baku Tour, the Icherishekhersky reserve, the Center of Translators at the Cabinet of Ministers of the Azerbaijan Republic, legal and consulting services, the Ministry of Finance, the



International Press, the State Committee on Affairs of Family fund Eurasia, women and children, the Ministry of Labour and Social Protection, Diasporas for students of faculty of Service Engineering in cooperation with the State Committee of Public Administration, Council of the State Support of Nongovernmental Organizations, the Scientific and Methodical Center for Cultural Researches, the State Committee on Affairs of Religions, the Society of Red Cross, the National Archival Department, the Museum of Carpets, the National Art Museum, promote acquisition by students of practical skills. At the same time, scientists and graduate students are conducting research to develop new areas of tourism and management in this area and promote social and cultural projects related to the attractions of the Republic of Azerbaijan.

At the same time a certain staff shortage in the tourist sphere remains; the lack of skilled staff is felt. Surveys conducted in the tourism industry, especially in regions showed absence of qualified personnel and discrepancy to their requirements of the market. Since 2009 demand for experts began to grow, however, statistically, in 2014 only 10% from those who work directly in the sector of tourism (4 2025 people), got the corresponding education (RIA Novosti. 27.04.2018). Experts lay hopes for specialized higher education institution and the State Agency on Tourism of the Azerbaijan Republic created in 2018 as the center of coordination of complex, system policy on development of this direction.

The connection between the educational and tourist areas has been repeatedly emphasized at the highest level. In the field of education, in addition to training qualified personnel for the tourism industry, there are processes of development, improvement of economic mechanisms, updating the content and structure of the University science and education on the basis of national traditions and modern international experience formed over many years, accelerating its integration into the single European space of science and education (The development program of the Baku State University for 2014-2020).

The oldest University of Azerbaijan – the Baku State University (BSU), which celebrates its 100th anniversary in 2019, is traditionally the flagship of higher education in the Republic. The BSU has a high international rating, is a member of the Eurasian Association of Universities, is a part of the network of universities of the Black Sea coast and the Association of Universities of the Caspian States. The BSU has bilateral agreements with more than 200 universities and research centers around the world, participates in academic mobility programs such as ERASMUS+, Movlane and many others (The development program of the Baku State University for 2014-2020).

The University successfully puts into practice the organization of its own events, conducts major international scientific and business events on its basis. This is facilitated by a developed scientific and material base, a high level of professionalism of the teaching staff, the presence of the Department of International Relations in the structure of the BSU.

By means of the university's scientific and business program the event saturation of life of the higher education institution is provided. In the nearest future the development program of the BGU assumes an increase in presentability of scientific and business actions, considering the high scientific level of symposiums, conferences, the forums organized on the higher education institution's platform. In the Baku State University the international delegations' meetings take place. For example, in May, 2019, within the international visit, the cooperation agreement is signed with the leading Israeli universities. Today within the walls of the BGU 15 foreign languages, including the European, Arab, Chinese languages (dialects) are learned; the Russian Culture Center works.

It is worth noting a fairly high provision of the University infrastructure facilities: boarding houses, recreation centers, hostels, catering outlets. Together with the resort infrastructure of the Caspian Sea, the tourist attractions



of Baku, this already contributes to the expansion of the inflow of inbound tourism to Azerbaijan. The educational infrastructure of the BSU includes 125 departments, 2 research institutes, 24 research and 30 training laboratories, 4 language laboratories, 2 research centers, including the center for nanoscience and high technology, the center for innovative projects for talented youth, the center for additional education, the center "Career, practice and communication with graduates", a branch of BSU in Gazakh, Lyceum for gifted children "Young talents", 4 cultural and educational centers (the Russian world, the Confucius Institute, the Azerbaijani-Korean information center, the Abai Center), 4 museums (including the unique Museum of the Bicycle in the Republic), TV and radio Studio at the faculty of journalism, law clinic at the faculty of law, 2 training and practical centers for students' practice and recreation in Guba and Alta-Agach (The development program of the Baku State University for 2014-2020).

A number of events have been held at the Baku State University in recent years, and it is planned to continue its activities in this area in the coming years. In order to improve science and higher education, improve the quality of the teaching staff training and accelerate the integration of higher education in the European and world scientific and educational space, it is necessary to develop a conceptual approach that reflects the strategic directions and approaches in the activities of the University.

In our opinion, in the leading higher education institution of Azerbaijan, on condition of close cooperation with the University of Tourism and Management, there are necessary conditions for providing terms of implementation of the innovative project on the development of scientific and business and educational tourism in the country. It is possible to draw a conclusion that an objective need of creation of a specialized division on the basis of the BSU which will serve as the skilled and experimental platform on the organization of a tourist destination of Azerbaijan in the sphere of MICE tourism ripened.

As defined by the European Commission, a destination is "an area that is separately identified and maintained for tourists as a place of visit and within which a tourist product is produced by one or more institutions or organizations" (Official site of the Russian International academy of tourism, 2019).

The Oxford dictionary of tourism interprets this concept as countries, regions, cities and other territories that attract tourists, are the main places of localization of tourist activity, tourist flows and their expenses; places of maximum concentration of tourist attractions, accommodation, food, entertainment, other services and economic, social and physical impact of tourism (Oxford Student Dictionaries, 2019).. From this point of view, Azerbaijan representing the extensive tourist and recreational region of South Caucasus has the influential resource attracting foreign tourists represented by the Baku State University. The tourist product is represented in this case by scientific practical activities of teachers and students of the university and also natural and other sights of Azerbaijan.

Tourist destinations of modern Azerbaijan are not enough well-known in the market of the international cultural tourism. However the situation changes including because the state pursues active tourist policy. Azerbaijan –is the active participant of the international events of YuNV-TO, it is presented by three associated members – the Azerbaijani Tourist Association, the Azerbaijani Institute of Tourism and the Baku Tourist Information Center. Azerbaijan participated in development of the concept of "A great silk way", researches on cultural tourism the results of which, in particular, found its reflection in materials of the international conference held by Azerbaijan "Taste of the Great Silk Way are conducted: the cookery, culture and tourism" (Baku, on September 6-7, 2012) (Ministry of Culture and Tourism of the Azerbaijan Republic, 2019). In 2019 the Azerbaijan Republic was included into the top three countries especially popular with foreign tourists and visited within culinary tourism.



One of the main objectives of the directed development of scientific and event and scientific and informative tourism is a promotion of achievements and prospects of the academic science and innovations, its opportunities, at the national and regional level. Examples of realization of scientific and scientific and informative tours, including unique, already there are in Russia (through RAS and the Russian international organization of tourism). In justification of the appropriate program of the development it is told about "need of creation of the harmonious and finished system of the Russian scientific tourism, and first of all – at the regional level" (The development program of the Baku State University for 2014-2020).

The center of the Azerbaijani culture which is recently created in Samara (Russian Federation) can serve as one of examples of regions' cooperation. In plans of the center – there is an expansion of the information and cultural exchange between regions, educational, tourist, sports and cultural actions with participation of the universities and the centers of culture. Financing of activity is planned to be carried out in the form of participation in the international grant programs aimed at the development of the national cultural ties between the states.

In turn, the non-profit partnership, with participation of the executive authorities, industrial companies, scientific institutes, with the assistance of the Department of the International Relations of the Baku State University and Department of the International Cooperation of the Azerbaijani University of Tourism and Management can become the mechanism of implementation of the project on the creation of a tourist destination of Azerbaijan. The strategic goal of the project should be to develop and strengthen ties with scientific institutions of the world. Other directions may also be included in the "tree of goals": promotion of cultural values of Azerbaijan in the international educational space, cultural dialogue, positioning of the national scientific school and the modern Bologna model of University education adopted by the BSU.

The University has the necessary resources, which include the organizational component, as the infrastructure of the University has the necessary conditions for the organization of joint activities, accommodation and food; in the faculties and departments of universities students in different provisioning profiles, prepared in the framework of educational and industrial practices to ensure the development of tourism programs and directions; the volunteer centers of the University will contribute to the implementation of the project, contributing to the organization and holding of events.

The Ministry of Culture and Tourism of Azerbaijan notes that in the republic such types of tourism as cultural, historical, gastronomic, at the same time the prospects of the international tourism due to diversification of the tourist offer in the world market, integration of regional and international initiatives, such as "Expanded agreement on the routes of cultural tourism" with assistance of the Council of Europe, the YuNVTO project "A Great Silk Way" and other ones (Golden Book, 2013) traditionally develop.

Results, Conclusions and Recommendations

The experts predict the further growth of business tourism in the world in all its versions. The MICE sphere is an indicator of the level of the state's economic development, loyalty of foreign countries in relation to it. From this point of view, Azerbaijan is in a favorable situation. This is evidenced by the increasing year-on-year influx of foreign tourists.

In parallel, the tourism industry itself is experiencing positive changes in the interpenetration of different types of tourism. There is a growing interest in cultural enrichment, active recreation, combining activities during a tourist trip. Centers of attraction for business - tourists are not only business and scientific events, but also cultural, natural attractions, national traditions.



Development of niche segments of the market of cultural tourism, in our opinion, has to serve the solution of problems of sustainable development of the republic according to 12 purposes of steady tourism defined in the document UNEP ("The ecological program of the UN") and YuNVTO "On the way to steadier tourism" (Sadiev. 2014) in destinations of Azerbaijan.

In turn, the Azerbaijani higher education institutions, thanks to such programs, also gain experience of the international cooperation, exchange of experience with education and scientific centers abroad. So the integration projects which are capable to introduce in modern reality the unique experience of interaction in the field of public policy, business, science and culture are born. The best universities of the country which chose an innovative way of development are capable to become the international platform for scientific, event, scientific and informative tourism.

References

- Azerbaijani university of tourism and management. <http://www.tourism.edu.az/>
- Baku: Golden Book, (2013), Azerbaijan: Candidate for membership in the Executive Council (seat from Europe) of the United Nations World Tourism Organization (UNWTO) for the period of 2013-2017.
- Hasanov Sh.M. (2013) Resort wealth of Azerbaijan. Baku: Azer-Media, p.204.
- Ministry of Culture and Tourism of the Azerbaijan Republic, 2019. – [Access mode] https://www.azerbaijans.com/content_523_ru.html
- Official site of Council for tourism of Azerbaijan (State agency on tourism of Azerbaijan).//The review of entrance and outbound tourism – [The access mode]: https://azerbaijan.travel/pdf/18011_ATB_Tourism_Departure_Survey_EN.pdf.
- Official site of the Russian International academy of tourism of URL: http://www.rmat.ru/ruabiturient_int_programs.
- Sadiev N. A. (2014) Development of cultural tourism in the Azerbaijan Republic // journal format. No. 3.
- Six reasons interfering development of tourism in Azerbaijan.//RIA Novosti. – 27.04. 2018. – [Electronic resource]. – URL: <https://ria.ru/20180427/1519556924.html>
- The concept of development "Azerbaijan – 2020: future call". – [Access mode]: https://president.az/files/future_ru.pdf.
- The development program of the Baku State University for 2014-2020. – [Access mode]: http://bsu.edu.az/ru/content/ministerstvo_obrazovania_azerbaydjanskoy_respubliki__bakinskiy_qosudarstvenniy_univesitet/
- World Organization of tourism, UNWTO. – [Access mode]: <http://marketintelligence.unwto.org/webform/5th-unwto-world-forum-gastronomy-tourism>.
- Oxford student dictionaries. - [Access Mode]: <https://www.oxfordlearnersdictionaries.com/>



The Fourth Industrial Revolution and Its Potential Opportunities For The Azerbaijan`S Economy

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Abstract

The Fourth Industrial Revolution represents an environment in which a rapidly changing digital transformation of the world of information, communications and internet technologies has a profound impact on the production processes. It affects economies in ways such as innovation, changeability, speed and agility. Research and evaluation of the potential opportunities of the Fourth Industrial Revolution is extremely crucial for economic diversification policy Azerbaijan is utilizing as a part of its continuous economic improvements. This process will not only help to develop non-oil sector in the country, but also will accelerate the establishment of cutting edge industries. The beginning stages of this process are the analysis and benchmarking of different countries and formation of economic models analogous to the economy of Azerbaijan. The purpose of this paper is enlightening this topic and encourage different agencies to acknowledge the importance this subject and it will introduce in their future researches and activities.

Key words: "Industry 4.0", Impacts of 4th Industrial Revolution, Economical opportunities

Introduction.

The Fourth Industrial Revolution indicates the organization of production processes based on technology and devices that communicate with each other autonomously. This activity describes a structure that can be independently based on self-organizing mechanisms, which is defined as a "smart" factory of the future, followed by physical processes by computer-driven systems, creating physical virtual copies. Additionally, the Fourth Industrial Revolution also expresses an environment in which a rapidly changing digital transformation in the world of information, communications, and Internet technologies has a profound impact on production processes. "Industry 4.0" represents a process that is being carried out today. Therefore, since the process is a complete process, the theory of the future is more focused. In general, the concept of "Industry 4.0" combines production with three-dimensional printers, robotics, artificial intelligence, extensive database and many other updates.

Method

The impact of Industry 4.0 on the economies of the country has been empirically investigated using the method, and in particular, conclusions have been drawn to identify the current and potential opportunities of Azerbaijan on the eve of the Fourth Industrial Revolution.

Findings

The concept of "Industry 4.0" was first mentioned in the Hanover Fair in Germany in 2011. The theoretical dimension of this revolution was presented for the first time by Kagerman and his comrades in the article entitled "Industrial 4.0: Internet of Things (Internet of Objects)" (Ali Soylyu, 2018: pp 43-57). In this article, it is stated that the world is a new era, and it has been accepted as "Industry 4.0" and also information about the components that make up this process. Henning Kagerman and Robert Bosch have created a working group called GmbH in October 2012 to submit their proposals for the Fourth Industrial Revolution to Germany. In 2013, he received a statement



entitled "Recommendations for the implementation of Industrial 4.0 Strategic Initiative" published by the German National Academy of Sciences and Engineering (Ali Soylu, 2018: pp 43-57).

Different opinions are found in the Fourth Industrial Revolutionary essence. For example, Can and Kiymaz stated that Industrial 4.0 is planning to collaborate directly or indirectly, and that digital data, software and information technologies will work together (A. Can, M. Kiymaz, 2016: pp 107-117).

According to Schumacher and others, "Industry 4.0" states that new technologies are the basis of the integration of Internet and support technologies, physical facilities, intelligent machines, production lines and processes within the boundaries (Aytaç Yildiz, 2018: pp. 546-556).

Batista and others have referred to Industrial 4.0 as an advanced stage in the organization and management of the full value chain process in the processing industry for sensory infrastructures (Aytac Yildiz, 2018: pp. 546-556).

Mrugalska and Wyrwicka describe the "Industry 4.0" notion as "the level of organization and management of a new value chain during product lifecycle" or "use of complex physical machines and devices to better control and plan commercial and public outcomes, integration with sensors and programs" (Aytac Yildiz, 2018: pp. 546-556).

The Fourth Industrial Revolution covers not only the development of automation, but also the processes of observation and decision-making. These changes, known as Industrial Internet, Internet of Everything, or Internet of Things, differ from those of the first three industrial revolution, according to the following characteristics (Z. Yüksekbilgili, G. Zeynep Çevik, 2018: pp. 422 -436).

- *Cyber-physical systems:* These systems integrate the real physical world into virtual computing world through sensors. One of the main forces of the Fourth Industrial Revolution is a system that eliminates the boundaries between the real and virtual worlds, creating a broad network of communication. In the future, there will be new interface created by cyber-physical systems at objects, and these interfaces will be upgraded with the latest innovations. Thus, it will take less time to adapt all changes to production processes, which will lead to the minimization of the problem and the level of productivity will increase further.
- *Database:* Using the Innovative Information System is more appropriate, because more information will be analyzed and processed in future production facilities emerging in the Fourth Industrial Revolution. Internet statistics, social media, blogs, and other similar sensors are part of the database. When this information is interpreted and interpreted correctly, businesses will be able to achieve high productivity by minimizing risks by making strategic decisions.
- *Digital Information Exchange:* In the Fourth Industrial Revolution, the virtual and real world is closely interconnected. With the help of equipment, components and information exchange between people on the Internet, the final product of every stage of production will be the composition and digital forms of the machines. In this way, production is thought to be faster and with low risk of high productivity. Thus, smart plants will automatically fit into the current environment.
- *Smart robots:* Robots are widely used to eliminate potential errors in production. Therefore, robotics are expected to be used more in the Fourth Industrial Revolution. These robots are aware of the phases and processes that are separated from the classic production line materials by means of sensor technology. Thus, it can be ensured that each product can be processed without errors on a production line.
- *Digital Industrialization:* All production processes under the 4th Industrial Revolution will be planned in the first place before mass production and will be provided with a virtual production plan. All steps will be pre-virtualized, and then physical production will be completed.

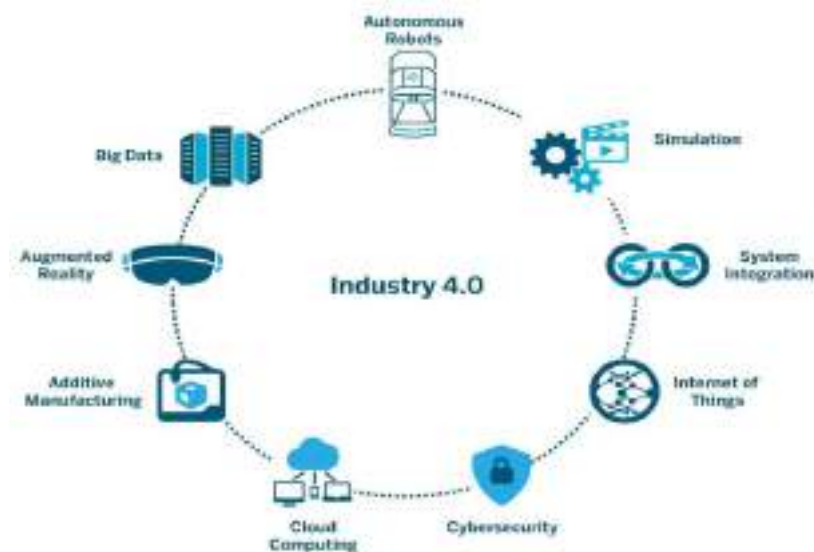
The 4th Industrial Revolution represents the organization of production processes based on technology and devices that communicate with each other autonomously. This organization describes a structure that is designated as a



"smart" factory, a computer-driven system that monitors physical processes, creates a physical copy and makes independent decisions based on self-organizing mechanisms.

The 4th Industrial Revolution will provide more comfort and stability along with the highest standards of quality in production, planning, operation, engineering and logistics. This means dynamic real-time, self-organizing value chains that can be optimized based on different criteria such as resource consumption. The 4th Industrial Revolution's main goal is to implement smart factories that can handle production processes. The main features of the Fourth Industrial Revolution can be summarized as follows (Ali Soylu, 2018: pp 43-57):

Figure 1: The 9 technological headlines that determine the effect of the Fourth Industrial Revolution



Source: Tony Melanson, "What Industry 4.0 Means for Manufacturers", <https://aethon.com/mobile-robots-and-industry4-0/>

- *Autonomous Robots* - The production process is only possible if the production is completely automated. It should be manufactured using robots in smart factories to make analyzes that make productivity more productive, using information collected from suppliers and customers. Thus, zero defect in the production line of products is possible. After that, machines that are connected to each other may also be able to check the quality of the product in the manufacturing process and identify errors more quickly. All processes are planned by cyber-physical systems. The development of robotic technology in the world will increase robots' interaction with each other, make them more autonomous and cooperative, and lead to more secure operation of people.
- *Simulation* - To understand the structure and behavior of the real system, it allows you to practice with a computer or other means beyond the system with logic and mathematical connections. At the design stage, 3D simulation of products, materials and manufacturing processes is used. However, in the future, simulations are expected to be used more widely in factory operations. In real-time data-driven virtual models, the virtual reality of the physical world will be created by machines, products and people. Thus, operators will be able to test the machine's production line without actually fixing the product, reducing installation time and testing the virtual world before improving the quality.



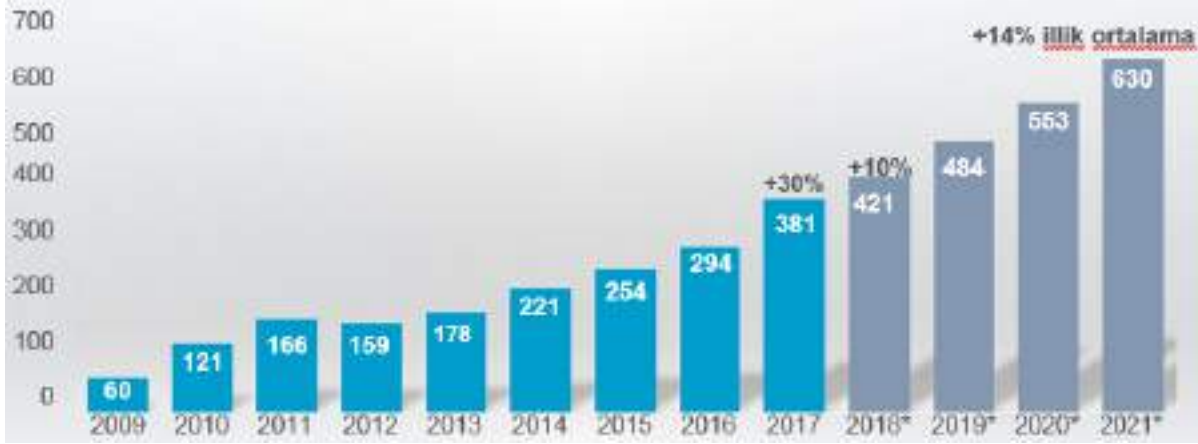
- **System Integration** - Horizontal integration is a continuous flow of production and planning, as well as the steps that are involved in the production and planning of different businesses. It integrates up to every point from raw material supplies to design, production, marketing and shipping. Vertical integration involves continuous communication and flow in the technological infrastructure used in all processes. For example, integration of units such as control panels, production management systems, sensors, engines, enterprise resource scheduling software, business intelligence programs is discussed in this context. It is possible to respond quickly to *vertical and horizontal integration* in the Fourth Industrial Revolution, to quickly respond to changes in production processes and problems, facilitate customer-specific and personal production, increase resource efficiency, and optimize global supply chain. In addition, it is possible for businesses to have a more flexible structure and to make the necessary changes with simple interface updates.
- **Internet of Things** - The Internet of Things, also called the Industrial Internet, are the basis of smart factories, products and services. It explains how information can be collected, raised and organized from various sources at work or at the factory. It is a system that allows objects to connect to the Internet through wireless or cable connections installed in the physical world. Sensors are data collection tools on the internet. In this structure, objects communicate with one another and control the work itself.
- **Cyber Security** - Many companies still use non-interactive management and production systems. With the development of vertical and horizontal integration, it will be important to safeguard critical industrial systems and production lines against cyber security on the basis of machines identification and management.
- **Cloud Technology** - is a common name for services that share common information between information devices. Providing software and data exchange is the use of existing information services in a similar way from the information network in a way that is similar to the power transmission of computers and other devices. It also enforces data, programs, services being stored on a virtual server, and easily accessing data and applications through any device on the Internet. The use of online clouds instead of computer hard drives is expected in the future, which means that it will be possible to access the functional applications through the online network without the need for any infrastructure in information technology. Cloud-based applications are now used for company organization and analytics applications. Increasing the use of cloud technology will increase the speed and accuracy of data, resulting in increased awareness and functionality of cloud platform machines, thereby providing more services to production systems.
- **3D Printing** - This system, called addition production, is a material that consists of subtle layers to create a physical object from digital design.

The influence of the Fourth Industrial Revolution on the country's economies with examples from different countries:

The Fourth Industrial Revolution is accelerating the pace of automation. This is manifested primarily in the production of industrial robots. According to the International Federation of Robots, the number of industrial robots operating in various factories around the world will reach 3.8 million by 2021, representing an annual 14% increase in 2018 -2021. The following chart shows the annual industrial robot production worldwide in 2009-2021.



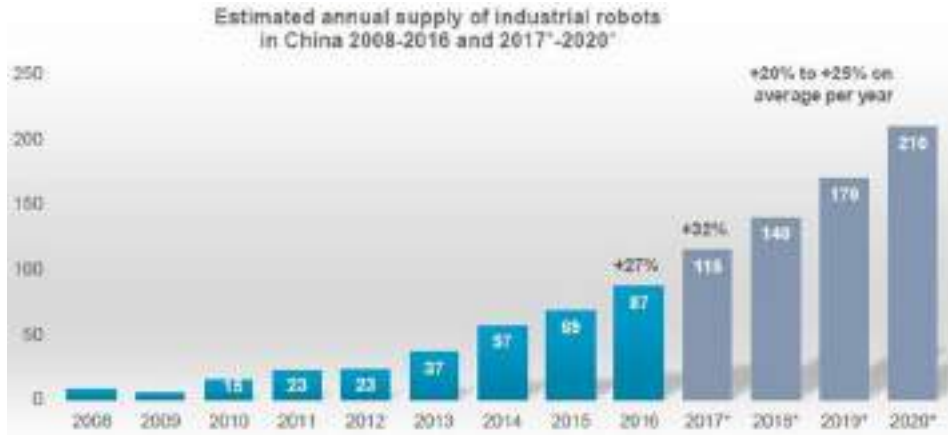
Chart 1: Global Industrial Robot Production Volume (2009-2017), (2018 -2021)



Source: IFR World Robotics 2018, (<https://ifr.org/free-downloads>)

Asian countries play a major role in the industrial robot market. By 2020, China's global robot market is estimated to be around 40%. It is estimated that 1.9 million industrial robots will serve in Asia's factories in 2020. It is estimated that the number of industrial robots in the Chinese market will reach 950,000 by 2020. In 2017, the number of industrial robots has increased by 32% compared to the previous year. This increase will continue to grow every year and can be seen in the following graph.

Chart 2. Expected annual robot production in China



Source: Sabiha Kılıç, Reha Metin Alkan, “Dördüncü Sanayi Devrimi Endüstri 4.0: Dünya ve Türkiye Değerlendirmeleri”, <https://dergipark.org.tr/download/article-file/483496>

As shown in Chart 2, China's annual robot production figures for 2008-2020 are generally shown. Thus, in 2016, there was a 27% increase compared to the previous year. In 2017 this increase was 32%. In the coming years, the expected annual increase in 2018-2020 is 20-25%.

Robot sales in Japan in 2017 increased by 18% to 45,600 compared to previous years. Japan has the dominant position among the robot-producing countries. Japanese robot manufacturers are expected to meet 52% of global



robot production in 2017. The current and estimated data on industrial robots serving the Chinese and Japanese markets between 2015 and 2020 are reflected in the following graph.

Chart 3. The number of current and likely industrial robots in the Chinese and Japanese markets



Source: Sabiha Kılıç, Reha Metin Alkan, “Dördüncü Sanayi Devrimi Endüstri 4.0: Dünya ve Türkiye Değerlendirmeleri”, <https://dergipark.org.tr/download/article-file/483496>

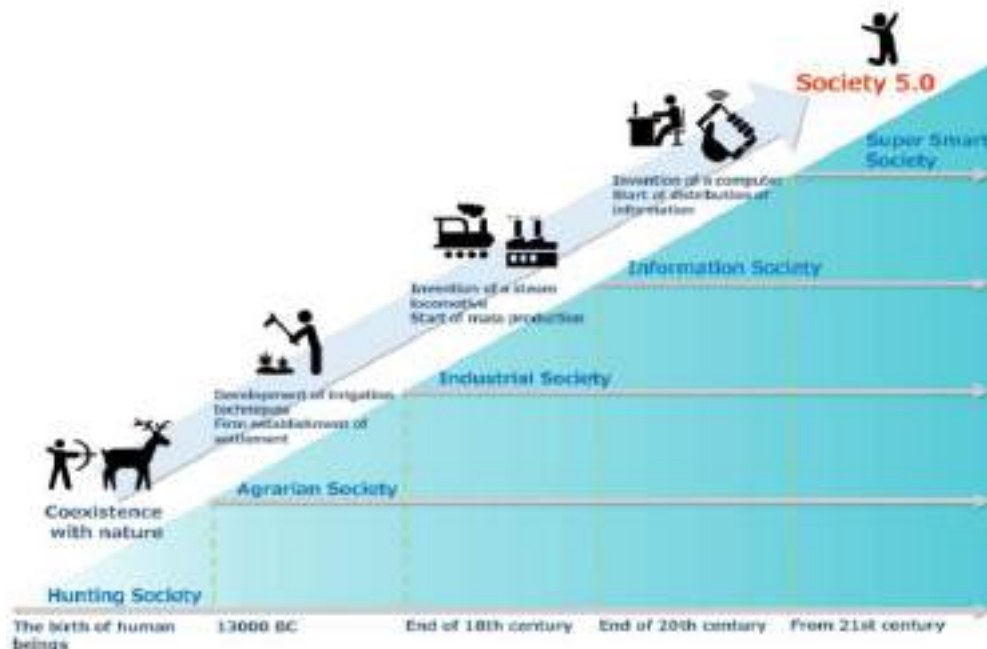
As seen in Chart 3, the expected annual robot production of China and Japan for 2015-2020 is shown. China has seen an increase since 2016, while Japan is expected to remain stable, with a decline in years.

Japan's Super Smart Society - In April 2016, Japan adopted the 5th Science and Technology Framework Plan. Innovation encourages many aspects, including promotion and internationalization. Japan's "Community 5.0" strategic plan was published in 2017 under the name of "Japan's Future Strategy", which is designed for the deep integration of advanced technologies to address economic and social problems. The goal of "Community 5.0" is to achieve the most appropriate solution that meets everyone's needs in a short time. "Community 5.0" aims to strengthen all actors in the community by focusing on their individual involvement and survival in a safe and comfortable manner. One of these is the elderly population, accounting for 27% of the Japanese population (over 65).

Keidanren describes "Community 5.0" in five public stages and can be seen in the following way (http://www.keidanren.or.jp/en/policy/2016/029_outline.pdf, 2016).



Figure 2. Japan's "Community 5.0" Initiative



Source: Lorens Granrath, "Japan's Society 5.0: Going Beyond Industry 4.0"
<http://www.japanindustrynews.com/2017/08/japans-society-5-0-going-beyond-industry-4-0/>

As we have seen in Figure 2, the first stage is the hunting community, the cycle of agrarian society from the 13th to the end of the eighteenth century until the end of the 20th century, the industrial society of the period until the beginning of the 21st century and nowadays as the "Society 5.0." called it.

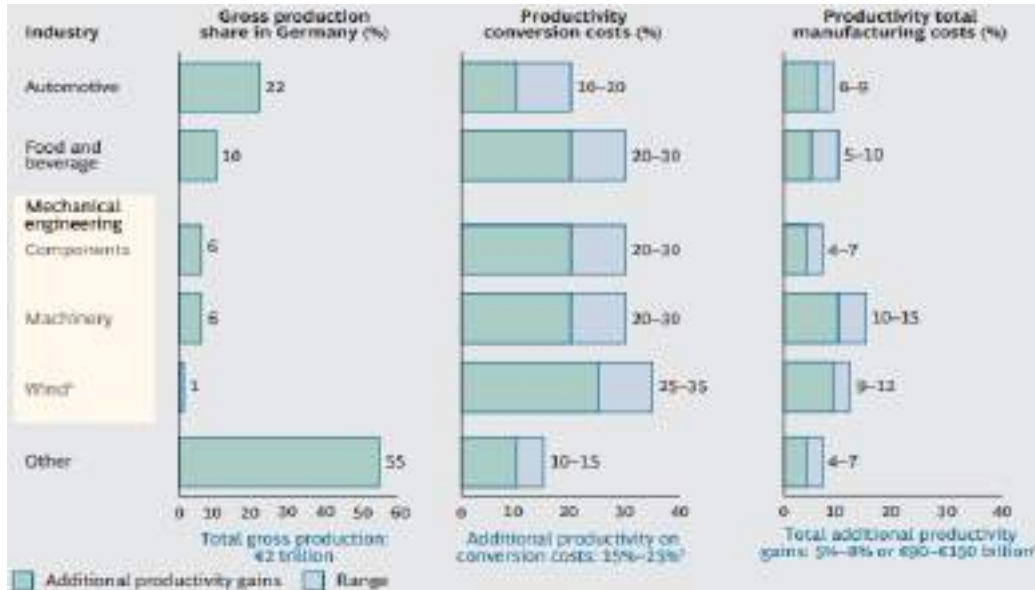
"Community 5.0" will be the fifth step in the development of human society. We are currently in Information Society, where the key factor is the database. In the fifth phase of human society, artificial intelligence will be realized. Japan is the fastest aging society in the world by 2050, with about 40% of the population. People living in Japan also call this society a super old age. With the older people, the workforce is diminishing. Japan is already known for its robot development, so these problems will be smart robots. Artificial intelligence can support older people in everyday life, as well as contribute to the development of new drugs.

Germany example: Germany is the fifth largest market in the world robot market. 36% of Europe-made and industrial robots and 41% of European robots are manufactured in Germany. The number of robots sold in Germany in 2017 increased by 6% to 21,404 in 2016. We can see how the quantitative justification of the potential impact of the Fourth Industrial Revolution on the global scale affects the following four areas in Germany:

- **Productivity:** Over the next 5-10 years, Industry 4.0 will increase its productivity from € 90 billion to € 150 billion across all German manufacturing sectors, covering more companies. Increase in productivity over conversion costs, which excludes costs of materials, will change from 15 to 25%. Given the cost of the materials, productivity growth will be at 5-8%. These indicators will change according to the industry. You can clearly see this in the graph below.



Figure 3: Increased productivity in Germany as a result of "Industry 4.0"



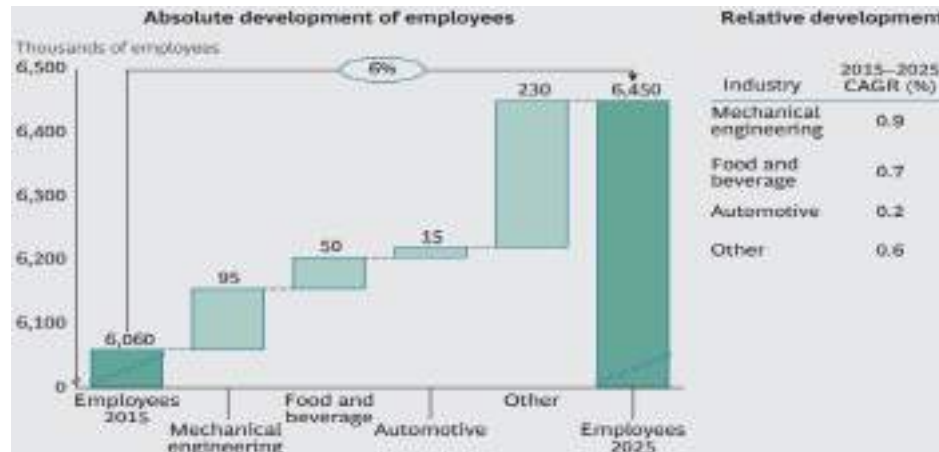
Source: The Boston Consulting Group, "Industry 4.0, The Future of Productivity and Growth in Manufacturing Industries", <https://www.zvw.de/media.media.72e472fb-1698-4a15-8858344351c8902f.original.pdf>, April 2015

As shown in Figure 3, industrial areas and their total production share, conversion costs of products and total production costs are shown. If we look at the automotive industry, it is expected that 22% of the total production, conversion costs will be 10-20%. Another area of the food industry is that it is expected that 10% of total production, conversion costs will be 20-30%. Revenue growth. Revenue growth in "Industry 4.0" will occur. Increasing demand for improved equipment and new data, as well as a wider range of consumer demand to more adaptive products, will provide additional revenues for about € 30 billion or about 1% of Germany's GDP per year.

- **Employment:** In the analysis of the impact of the "industry 4.0" on German production, it is possible to see employment growth by 6% in 2015-2025 as shown below. Demand for workers in the mechanical engineering sector will be up to 10 percent during the same period. In a short time, the tendency towards automation, simple and repetitive work, will often replace low-skilled employees. At the same time, increasing use of software, contacts and analysts, development of software, and demand for IT professionals.



Figure 4: Employment growth in Germany as a result of "Industry 4.0"



Source: The Boston Consulting Group, "Industry 4.0, The Future of Productivity and Growth in Manufacturing Industries", <https://www.zvw.de/media.media.72e472fb-1698-4a15-8858-344351c8902f.original.pdf>, April 2015

If we look at Figure 4, we can see that employment has increased by 6% over 10 years. Fields of excellence are mechanical engineering, light and automotive industries. If we look at the growth rates in every industry, it is expected to be 0.9% in the machine-building industry, 0.7% in the food industry and 0.2% in the automotive industry. Inventory: Adaptation to "Industrial 4.0" to production processes German manufacturers will invest approximately 250 billion euros (about 1.5% of producer profits) over the next 5-10 years.

The World Economic Forum (WEF) released its first "Readiness for the Future of Production Report" assessing how well-positioned global economies are to shape and benefit from changes in production being driven by the Fourth Industrial Revolution. The report was developed in collaboration with A.T. Kearney. Singapore is among the 25 countries assessed to be in the best position to benefit from the changing nature of production. The report uses a new benchmarking framework, diagnostic tool and data set to help countries understand their current level of readiness for the future of production, as well as corresponding opportunities and challenges (Kearney, 2018).

The assessment framework is made up of two main components: Structure of Production, or a country's current baseline of production, and Drivers of Production, or the key enablers that position a country to capitalize on the Fourth Industrial Revolution to transform production systems. There are 59 indicators across these two components. The report finds that global transformation of production systems will be a challenge, and the future of production could become increasingly polarised in a two-speed world. Of the 100 countries and economies included in the assessment, only 25 countries from Europe, North America and East Asia are Leading countries, or in the best position to benefit from the changing nature of production. These 25 countries already account for over 75% of global Manufacturing Value Added (MVA) and are well positioned to increase their share in the future. The 25 Leading countries in alphabetical order are: Austria, Belgium, Canada, China, Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Israel, Italy, Japan, Republic of Korea, Malaysia, Netherlands, Poland, Singapore, Slovenia, Spain, Sweden, Switzerland, United Kingdom and United States.

Evaluating and presenting existing and potential opportunities on the eve of the fourth industrial revolution in Azerbaijan:



It has witnessed industrial revolution in the history of Azerbaijan and has benefited from these innovations. In the first revolution, manual labor was mechanized, used as a source of energy for coal and wood. Later, the transition to the Second Industrial Revolution, due to the use of technology by electricity. In the third revolution, production automated and information technologies are rapidly spreading. The Fourth Industrial Revolution can be regarded as a transition to a new economic model that acts as an alternative to digital and bio-productivity. This means that a superior technological process will be created and a new and stronger stage of healthy competition in the economy will begin.

In the current situation, non-competitiveness and non-professionalism, as well as non-effectiveness in the world, are widely accepted as the object of the crime, offering a number of opportunities. Azerbaijan is actively involved in the development of industrial policy by following modern world processes. Already Azerbaijan is conducting serious reforms aimed at the development of the non-oil sector, which is the basis of the innovative development model. From these fields, the agrarian sector is already transitioning to the industrial sector based on the process of technological and scientific development. This is the first extensive transformation since the years of independence. The experience of developed countries has been studied in order to achieve this transformation, and measures have been taken to promote technological progress, intellectual potential, science and education.

Artificial intelligence, 3D and 4D printing machines, robot correction and genetic researches considered as the main features of the Fourth Industrial Revolution should be one of the important steps in the development of Azerbaijan's economy. Azerbaijan ranks 65th in the world in terms of ICT development and is a leader among the South Caucasus countries. According to the International Telecommunication Union (ITU) State of Broadband Report 2018, Azerbaijan is the first country in the CIS to cover the Internet coverage (79%). In the Doing Business 2019 World Bank report, our country ranks among the top 10 reformers in Europe and Central Asia and ranks 25th out of 190 countries around the world. Technologically, Azerbaijan accelerates its development as a result of these reforms. At the same time, measures are being taken to introduce new technologies and to increase the rate of growth of innovations. Therefore, processes such as the emergence of a new ecosystem in the telecommunications sector, the transition to a business culture, including the education model, and the renewal and construction of fixed technologies in the market should be pursued.

Azerbaijan ranks 62nd in the "Drivers of Production" section of the World Economic Forum report- "Readiness for the Future of Production Report (Kearney, 2018). The state actively participates in the implementation of projects based on the development of the private sector, as well as in the area of infrastructure expansion and implementation of investment programs. Therefore, when examining international experience, it seems that developed countries are also choosing large infrastructure projects to invest in the private sector, particularly in the implementation of innovative programs, technology renewal and telecommunications.

The "Azerbaijan 2020: Vision for the Future" Development Concept aims to create favorable environment for the promotion of new types of activities and products, as well as the development of innovative entrepreneurship, as well as the transfer of cutting-edge technologies to implement the 4th Industrial Revolution in Azerbaijan.

Azerbaijan also can use the the triple helix model (government-industry-university partnership). The Triple helix model is a knowledge-based innovation tool with the interdependent principal parts of government, university, and industry. The mechanism of the model is to optimize the regional innovation environment through the promotion of regional cooperation and fostering a feedback loop to act on the innovation efforts of different participants. Meanwhile, the triple helix focuses on bringing dynamic innovation ability to regional innovation systems and accelerating the transition of knowledge, labor, and technology capital, as well as management experience. This regional innovation model has attracted the attention of many scholars; therefore, the effect of regional cooperation on innovation efficiency has become a new orientation in regional development research (Liping Fu, 2019).



Results, Conclusions and Recommendations.

Each transformation covers all countries, economies and political systems, private and public sectors, companies and macro and micro environment factors: the sector, competitors, customers, employees, etc. The 4th Industrial Revolution impacts business in these areas: Increasing the role of digital players in the formulation of demand, increasing transparency, customer loyalty and engagement, expanding the boundaries of elements affecting customer behavior (fast dissemination of information and exchange of mobile networks for missions) and adopting innovations in the direction of their adaptation.

Industry 4.0 concept of the state and civil society in Azerbaijan, especially in last years has been a subject being discussed at the level of organizations. During the Fourth Industrial Revolution in Azerbaijan, it is important to develop and increase the knowledge of the ecosystem deeply involved in innovation. Innovations are key people, and IT professionals are required to upgrade the IT ecosystem. For this reason, they should be avoided abroad.

At this point, how much are we ready for this revolution as a country or what are the points we are missing? To answer this question, we need to make a few points. The first of these is R & D investments. R & D investments are extremely important in terms of the areas where improvement is needed. In Azerbaijan, the resources allocated for R & D and the number of personnel employed in this field are quite low.

In order to avoid the development of the Fourth Industrial Revolution, the state should take measures to strengthen cooperation between science, business, private sector and state, as well as the development of technological advancement in universities and the creation of innovation spaces.

Azerbaijan has also been making serious efforts to develop its non-oil sectors. However, it is a fact that we have a long way to go. In this context, Azerbaijan does not miss the transformation of the new industry and turn it into an opportunity; should adapt the traditional education approach to the current situation and transition to a more creative and innovative education system, use triple helix model, create sustainable education opportunities, realize university-industry cooperation, provide the necessary financing for the implementation of innovation-oriented projects, give the necessary importance to R & D investments, It should establish an institutional structure in accordance with the industrial-technological structure of the Industrial Revolution.

That is why it is important to prepare for this industrial revolution in every respect in society. There should be more professional, transparent and systematic management in the public and private sectors, more proactive decisions, the removal of factors that hinder transformation, dissemination of innovative thinking and practice, increasing scientific and technical and research institutions, and the use of targeted use. "Industry 4.0" enables Azerbaijan to expand its role in global economic competition. Azerbaijan will make these opportunities possible by transforming it into a Regional Digital Center with innovative solutions and technological advancement.

References

- A. Muradov, F. Amirbeyov (2016) "New Industrial Revolution: The Role of Universities in Increasing Competitiveness", <http://unec.edu.az/yeni-senaye-ing-labi-repediatric-in-rolu/>
- Alec Ross (2016) "The Industries of Future" –297 page.
- Ali Soylu (2018) "Endüstri 4.0 ve Girişimcilikte Yeni Yaklaşımlar" Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü Dergisi – s. 15
- Aytaç Yıldız (2018) "Endüstri 4.0 ve akıllı fabrikalar" – s. 556
- Dr. Nurşen Numanoğlu, Mehmet Evren Eynehan (2016) "Türkiyenin Küresel Rekabetçiliği İçin Bir Gereklik Olarak Sanayi 4.0", Tüsiad və Boston Consulting Group – s. 64
- F.M. Rahimov, IA Abbasova (2016) "Use of Techno Parks in the New Year of the Industrial Revolution in Azerbaijan", Proceedings of the Third International Symposium on the World Turkic World Studies, Vol. 6
- Fuad Allahverdiyev (2018) "The 4th Industrial Revolution: Perspectives for Azerbaijan" <https://az.trend.az/business/it/2985579.html#top>



- Gürcan Banger (2018)“Endüstri 4.0-Ekstra” – s. 336
- IFR World Robotics 2018, <https://ifr.org/free-downloads>
- Jabrayil Valiyev (2016) "On the threshold of the IV Industrial Revolution", <https://jabrayilvaliyev.com/2016/01/28/iv-s%C9%99naye-inilabinin-astanasinda/>
- Keidanren (Japan Business Federation) (2016), “Toward realization of the new economy and society” – 26 page. http://www.keidanren.or.jp/en/policy/2016/029_outline.pdf
- Klaus Schwab (2017) “The Fourth Industrial Revolution”, World Economic Forum- 172 page.
- Lorens Granrath, “Japan’s Society 5.0: Going Beyond Industry 4.0” <http://www.japanindustrynews.com/2017/08/japans-society-5-0-going-beyond-industry-4-0/>
- Ogan Özdoğan (2017) “Endüstri 4.0.” Pusula Yayıncılık - s.130
- Sabiha Kılıç, Reha Metin Alkan, “Dördüncü Sanayi Devrimi Endüstri 4.0: Dünya ve Türkiye Değerlendirmeleri”, <https://dergipark.org.tr/download/article-file/483496>
- Sercan Dereli (2016) “Sanayi Sonrası Toplumda Çalışma Olgusu ve Çalışma İlişkilerine Etkileri”, Gazi Üniversitesi Sosyal Bilimler Enstitüsü – s. 333
- Tahmasib Alizadeh (2016) "The IV Industrial Revolution: Expectations, the Main Targets", <http://diskurs.az/en/en-az-----anay---gozl-ntil-r-sas-hd- fl-r />
- The Boston Consulting Group, “Industry 4.0, The Future of Productivity and Growth in Manufacturing Industries”, <https://www.zvw.de/media.media.72e472fb-1698-4a15-8858-344351c8902f.original.pdf>, April 2015
- Tony Melanson, “What Industry 4.0 Means for Manufacturers”, <https://aethon.com/mobile-robots-and-industry4-0/>
- World Economic Forum In collaboration with A.T. Kearney, Readiness for the Future of Production Report 2018”, Geneva 2018, http://www3.weforum.org/docs/FOP_Readiness_Report_2018.pdf
- Liping Fu, Xiaodi Jang, “Does the Multiple-Participant Innovation Improve Regional Innovation Efficiency? A Study of China’s Regional Innovation Systems”, Sustainability Journal, 11 (17), August 2019



The risks created by learning overload for grade 1-3 pupils

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Abstract

Primary education is the second level of general education, which forms an essential basis for further education. In primary school, from Grade 1 to 3, a pupil obtains the foundation for further education – develops thinking, co-operation and self-management skills, acquires experience of learning and growth, becomes aware of his/her personal needs, interests and abilities. This is also a stage when the personality development process takes place, considering social, physical, emotional and psychological preconditions. In the learning process, children encounter problem situations linked to the fulfilment of learning requirements, they form attitudes towards assessment and interpersonal relations, which stimulate a stress response in the child's body. If the problem situation is not resolved, the stress level is increasing, and it significantly affects the child's daily life, abilities and attitudes. The aim of this article is to analyse the workload of 1st – 3rd grade pupils in relation to the learning content identifying the possible risks created by learning overload, taking into account the current curriculum content changes in Latvia, the school environment and the demands placed on teachers and pupils in the process of acquiring the educational content.

Keywords: children, education, educational content, learning overload, stress, pupils.

Diversity of stress

The term "stress" was first used by Canadian physiologist Hans Selye, who studied stress as a physiological body reaction, proving that it affects almost all human organ systems (cardiovascular, lung and kidney systems). He defined it as a non-specific (the reaction will be the same regardless of what kind of stressor is at work) body's response to a health hazard (therefore stress is also called a general adaptation syndrome). H. Selye distinguished two types of stress: eustress and distress. Eustress is a constructive or healthy stress experienced in situations that promote positive emotions, for example when achieving high results, gaining success, experiencing uplifting relationships, etc. Distress can be explained as a destructive stress that occurs as a result of insecurity, fear, anger, aggression (Selye, 1974, Lazarus, 2006). H. Selye proved that stress is a general adaptation syndrome, during which the physiological response to stress progresses in three stages: firstly, the body gets warned and it reacts with an increase of anxiety so that the problem situation is noticed and recognized; secondly, the resistance stage takes place in which the body gets ready to cope with the consequences by activating the autonomic nervous system, and thirdly, if the stress stimulation continues to progress, but the body is not able to adapt enough, the stage of exhaustion follows (Selye, 1936, 1956). Although Selye defined stress as a physiological response of the body to harmful stimuli, his definition of stress



contributed significantly to general understanding of stress, aligning the development of the body's response with the psychological process.

With the development of stress research, an increasing emphasis was placed on the stressor (*Butler, 1993, Wheaton, 1999, Dickerson, Kemeny, 2004*), or a stress-causing factor that may be physical (eg cold and hot), chemical (eg formalin and ether) or psychological (*Selye 1936, 1956, 1976*). There was also a development of a stimulus-based stress definition that began to explain stress as a result of pressure (*Butler, 1993*). This approach is based on the external stimuli of stress, and when they increase, the person's internal reaction to this pressure, or the level of stress, is increasing as well. The higher the pressure is, the more likely a person's stress level will increase (*Butler, 1993*). Stimuli-based stress definition and response-based stress definition promote awareness about stress, but both definitions have their limitations. In the clinical practice it is emphasized that stress is a dynamic process that reflects both internal and external factors as well as interactions between them. These views come from understanding the importance of the cognitive factors (thoughts, attitudes, beliefs) of psychological well-being. The individual stress levels are determined by the perceived irritants and resources, thus the cognitive factors affect both the stress stimuli and the response (*Butler, 1993*). This way of thinking is clearly reflected in the stress definition developed by R. S. Lazarus and S. Folkman, combining internal and external stress aspects, and looking at it as a cognitive or dynamic process: stress is the relationship between a person and the environment, and is assessed as being too demanding for his/her physical and mental resources endangering his/her well-being (*Lazarus, Folkman, 1984*). The explanation of stress as a dynamic process reveals two important aspects: people perceive the stress stimuli differently, and they are influenced both by the broad understanding of things and their ability to respond appropriately. This means that only each person can evaluate his/her level of stress and the factors contributing to stress. Feelings (such as frustration, jealousy, boredom) are equally important as external stressors for increasing the stress level. Stress that is developed by feelings can be more serious than it might initially seem, especially if the external stress stimuli are linked to the life-related things (threats, achievement of goals or outcomes, desire to fit into some pre-defined standards, possibility of a serious illness, etc.). The second key aspect of this definition is the balance between these two stress assessment factors: perceived requirements and perceived resources. If a person sees more resources as requirements, then the situation does not make people feel threatened, but if both of these factors (requirements and resources) are in balance, then a person can work maximally efficiently. Stress, distress and suffering arise when demands exceed the resources. For a stable internal environment and for a balanced, systematic activity a coping mechanism is essential, which potentially helps to balance the perceived demands/threats and resources, thereby reducing the level of stress (*Lazarus, Folkman, 1984, Butler, 1993*).

The understanding of stress as a dynamic process is progressing, and nowadays the leading definitions include the theories and ideas of the above-mentioned researchers: stress is a general (non-specific) organism's response to a physical or psychological exposure that disrupts its homeostasis (internal environment stability) and changes (mainly agitates) the condition of the nervous system and the whole organism (*Latvijas pediātrū asociācija, 2013*). Also the leading dictionaries use the research and definition of H. Selye: Stress is created by a physical, chemical or emotional factor that causes bodily or mental tension and may be a factor in disease causation (*Merriam-Webster Dictionary*).



Summarizing the diverse explanations of stress, it can be concluded that stress can be defined as a physiologically and psychologically dynamic process that starts when a person is experiencing a stressor (physical, chemical or psychological irritant). The aim of stress is to activate the human body for solving a problem situation, but if the human resources are not sufficient for solving the problem situation, the bodily stress reactions increase and become unhealthy, contributing to the exhaustion of the nervous system with all its consequences.

Age-group characteristics of the Grade 1-3 children, and the impact of the positive environment

The first years of schooling form an important basis for the child's further education, influencing his/her social, physical, cognitive, emotional and psychological development. Z. Freud has argued that school is an environment in which two essential components of life begin to emerge: working skills and peer groups that promote rapid changes in the psychosocial sphere. Thus, the preconditions for systematic and purposeful development of working skills as well as wide opportunities for changing the child's self-confidence are based in the early stages of primary education (*Epstein, 1987, Kulbergs, 1998, Duckworth, Gendler, Gross, 2014*). E. Ericson, defining the children's development in the early stages of primary school, combines both of the above-mentioned aspects, emphasizing the formation of the sense of usefulness/susceptibility or, in contrast, the sense of ineffectiveness/inferiority. The need to gain recognition from others becomes crucial; teachers become the prime authority, submitting to the peer groups at the end of this period. The failure to integrate fully into the dynamic primary school environment can lead to a profound sense of alienation, reduced work abilities and lack of learning motivation, which may persist long after the end of this period (*Erikson, 1963*).

The child's ability to adapt to the physical changes is also essential, as the natural movement activity is still high at the beginning of the primary education. The physical struggles to adjust to the daily rhythm of the school, as well as ability to control one's behaviour is still developing (*Duckworth, Gendler, Gross, 2014*). Frequently observed restless sitting, active leg movements, biting of nails or pencils, twirling of hair, etc., is related to child's difficulty to sit contrary to the natural desire for movement. At this age the large muscle groups are more advanced than the small muscles, therefore even writing contributes to the fatigue (*Svence, 1999*).

Although the children of this age have the highest motivation for learning compared to the later school years, often children do not have sufficient concentration ability and skills for fulfilling all the necessary requirements, thus problematic situations develop, and solving them the body responds with a stress reaction. If the requirements and their volume are appropriate for the child's age, abilities and resources, the stress response helps to activate the body for solving the problem situation and performing the tasks, which result in experience and gradual development of the child. However, if the requirements regularly exceed the child's resources, the problem situation and the stress response in the body gets prolonged. Regular exposure to high stress situations affects the overall development of the child. The aim of the learning load is to achieve a successful and productive child's development, but exceeding the age-appropriate norms, the child's overall development



becomes problematic, taking into account not only cognitive but also physical, emotional, and social preconditions.

The psychological development of the primary school pupils is determined by their individual development level and its peculiarities. Starting school, pupils and teachers may encounter several problems: pupils have different levels of readiness for school, they might not be prepared for the new psychological role, the learning motivation differs, as well as pupils have different levels of skills, abilities, and talents. For some learning comes easy, for some – problematic, for some learning seems boring, but for some – interesting. The learning activities include games and plays (*Svence, 1999*). It must be taken into account that the behaviour of Grade 1 – 3 pupils is still highly dependent on the characteristics of their nervous system and temperament, but at this age the temperament does not conform sufficiently to self-regulation. Children are not yet able to manage their emotions, consciously focus their attention, or cope with fatigue (*Pliners, Buhavalovs, 2002*).

At this stage, the development of the child's nervous system and brain is undergoing major changes and development. The maturation of the cerebral cortex and its synchronization between the two hemispheres occurs gradually from two to 11-12 years of age. The dominant brain waves of a grown-up and emotionally mature person are alpha and beta, and it can be detected by electroencephalography. During the first years of life, the cerebral cortex still has predominantly theta waves, which means that children can easily be influenced and transformed, as their perception of the world is just starting to develop, they experience emotional stress and are still in need of some sleep during the day. At about age of six, theta waves are replaced by alpha waves, a serious maturation of the cerebral cortex takes place – this is a time when a child develops as independent person; it is a transition period from unconscious to conscious perception of life. Each child reaches this period individually, and in this development period even half a year makes a crucial difference. For a child, this is a very distressing period: the physical changes are taking place, and at the same time there is an effort to understand the surrounding world. Only at about the age of eight, in the brain of the child develops waves that show signs of analytical thinking. It is only during this period that emotional maturity occurs, as until then the child acquires experience in stereotypical activities. Therefore, disobedience, negligence, emotional outbreaks and other negative manifestations are not always the result of misbehaviour. Often the deviations in child's behaviour arise from the difficulty to adapt to the new situations and to acquire new ways of action and communication (*Pliners, Buhavalovs, 2002*). Analytical abilities increase with brain maturation when a child becomes able to perceive the new information through his personal experience and is able to focus on purposeful activity, as well as to feel the results of his work and gain satisfaction from them. The research data suggest that brain cell activity begins to mature at 9-10 years of age, but gets stabilized only at 11-12 years of age, and its characteristics are emotional persistence and ability to focus attention for a long period of time. The maturation stage of the central nervous system of 8 to 9 year old children should not be in such regime as it is currently required in the education system. The pace of learning is fast, the workload intense, breaks between lessons are short, and children get emotionally exhausted and tired. At this stage the nervous system gets agitated when receiving a too big sense of responsibility - disproportionate to the child's maturity stage, for example, by poorly perceiving the teacher's explanations, failing to perform tasks at a certain time span or failing to read a certain number of words per minute. A significant difference can be observed with children who are born at the beginning or the end of the



year as half a year can be decisive for the child's physiological development, perception and emotional stability. Until age of 9 children would need a special learning programme in the form of positive plays and games, without burdening the child's emotional and responsibility development with rating tables, assessment systems and without taking away the evening hours with homework. In the first primary school years, the child can meet the current requirements only if the alpha waves are formed in child's cerebral cortex (*Lindsley, D, 1936, Gumenyuk, Korzyukov, Alho, Escera, Schröger, et.al. 2001, Berger, 2011, Meikšāne, 2017*). Children, who are experiencing high demands and sense of responsibility before the emotional maturation, develop a shifted emotional perception; emotions can be suppressed or isolated or the child can close oneself off towards others, complicating the group work and the child's future social relationships. Disrupted emotional maturation can also manifest in an opposite way: a child can become oversensitive towards surrounding situations, starting to cry a lot or complain about the unfair treatment or bullying from the others around. A child with increased emotional sensitivity can also become seemingly rude, shameless or loud, thus trying to protect oneself in emotional situations. In the fast pace of a school day and in a classroom with large number of pupils, an emotionally labile pupil can experience upbringing difficulties, and in the coming years the resistance to any upbringing attempt will only increase, because they will feel misunderstood and offended.

Also egoism is a characteristic personality trait of pupils with behavioural difficulties. Although the research in psychology suggests that the children start expressing the feelings of social justice and their ability to care for other people between the ages of 5 and 7, the signs of egoism can also be seen in the school environment. The main motives for students with egoistic behaviour are their own desires and whims. Pupils try to satisfy them by any means, without taking into account the needs of others, even violating the moral and legal norms (*Pliners, 2002*). In certain situations every child (and also every adult) faces emotional experiences, interpersonal conflicts and increased stress situations. Parallel to academic education, teachers also care for the social-emotional upbringing of children. At school pupils develop and strengthen self-regulatory skills of emotions as well as learn positive interaction and problem-solving models. Thus, teachers should be able to cope also with very intense emotion- and relationship-related problem situations (*Raščevska, Martinsone, 2014*).

In order to have a pleasant atmosphere in the classroom and good relationships between the pupils and the teacher, everyone should start with oneself. Of course, in the classroom there will always be mutual competition. Thus, the Centre for Disease Prevention and Control has developed a socio-emotional learning model in order to create a friendly and respectful environment:

- self-understanding includes abilities such as recognition of emotions, awareness of the effects of emotions, awareness of thoughts and values, etc.;
- self-regulation includes abilities such as regulation of emotions, stress management, impulse control, self-motivation, etc.;
- understanding of others includes abilities such as acceptance of other person's viewpoint, empathy, respect for other people, etc.;
- relationship building skills include the ability to develop and maintain healthy and positive relationships with different individuals and groups, collaboration and constructive conflict resolution, etc;



- responsible decision-making includes abilities such as identification of a problem, realistic assessment of causes and consequences, ability to make constructive decisions about one's behaviour and social interactions based on ethical standards, safety considerations and social norms, etc. (*Slimību profilakses un kontroles centrs, n.d.*)

Each pupil has to work with his/her behaviour and attitudes, and the same must be done by the teacher. Starting the new school year, the teachers' workload is increasing, and the big workload can contribute to the development of a burnout syndrome. If a depressed mood appears, a loss of interest in things that before were done with passion, a desire for social isolation, or a mild irritability - these are the signs of a burnout syndrome (*Vinniņa, n.d.*). If this syndrome occurs, the teacher must work with him/herself in order to prevent that personal problems do not affect the surrounding environment, meaning school and the classroom.

If in the school environment any of this happens, a rapid change is needed from the side of the pupils or the teacher. Of course, every person is an individual with his/her own personality traits, and it determines the attitude towards things, processes, values. Inappropriate behaviour can be an indicator that shows that the value system has not been strengthened. According to T. Koke, "pedagogical episodes reveal that in school years, when a storage of person's life and experience is still empty and the child is in situation as expressed by Latvian proverb - "Colt is not for riding, calf is not for milking", a child and a youngster can be influenced with a single word or sentence, a single unplanned event or elaborated system of events and beliefs, leaving far-reaching consequences" (*Koke, 2017*). Teacher is an endless source of inspiration. Teacher must encourage creativity (especially to the inner one) and participation in creativity; must unleash our talents and abilities that only the teacher has noticed when the pupils did not have any idea of their existence. If the pupil and the teacher have met and the intuition tells the pupil that he/she is in the right class with the right teacher, then one must leave all the doubts, fears and mistrust, and must trust his/her teacher completely similarly as the child trusts his/her parents (*Bikše, 2009*). Any pupil continually adapts to the environment in which he or she grows – family, school and others. Likewise, every person follows his/her desires, interests and feelings. They are very different and not always compatible with the demands of the outside world. The child's ability to regulate his/her behaviour and adapt it to the expectations of society is evolving gradually; and the path of each individual's psychological development is rather different than similar. In the school there are children who form their relationships with the surrounding people and meet the demands of education both with the ease and difficulty (*Raščevska, Martinsons, 2014*). Often it seems that the greatest attention needs to be paid to the collaboration between the teacher and the pupil, as most of the day the teacher and the pupil, and *vice versa*, have to work together. However, the parents need to know what is happening with their child at school. The school should have a continuous exchange of information between pupils, teachers and parents. Both home and school have their own rules. Rules to be followed. Teachers also set the boundaries that must not be violated. When setting the boundaries it is important to find the middle way between too rigid boundaries and permissiveness. Because too much protection, as well as too much freedom, can lead to the consequences that can be not only aggressiveness, excessive mobility or lack of distance, but also protests and conflicts (*Roge, 2008*). In a school environment where the emphasis is put on acquiring new knowledge, it is important to set the boundaries to avoid the situations where more attention is paid to controlling the behaviour of pupils than carrying out the main function



of school. From the beginning, the school environment needs to be designed so that the pupils feel good, have a sense of belonging and feel part of what is happening around.

Factors of stress for Grade 1-3 pupils

In the primary school, Grades 1-3, the stress factors can be divided into four categories: child - family, child - peer groups, child - teacher, child - his/her own abilities/learning. In each of the categories, the stress factors can vary, depending on each child's experience, stressors and perception of internal resources (*Lazarus, Folkman, 1984, Butler, 1993*).

The family is a primary environment in which attitudes and responsibilities are taught, which largely regulates the child's perception of him/herself, the surrounding circumstances, and cooperation with people around. In relationships with parents, the child is gaining experience and the basis for further stress perception – a positive problem solving experience creates preconditions for successful stress management in the future, while the accumulation of negative experience is a precondition for a complicated problem management in the future. The family's microclimate can have a significant impact on the pupils' overall level of stress, creating a sense of belonging and secure attachment. Attachment to a group of like-minded people is one of the basic needs (*Strack, Argyle, Schwarz, 2001*), which a child perceives as a priority in comparison to the intellectual work (*Erikson, 1963*).

A sense of belonging is also important in the relationships with peers. Erikson, describing the formation of peer groups in this age group, emphasizes the peer cruelty towards those who are different with regards to their appearance, personality traits, behaviour or learning abilities (*Erikson, 1963, Kulbergs, 1998*). Without the sense of belonging to his/her peer group, the child experiences prolonged tension situation. Analysing the stress reaction, H. Selye demonstrates the negative effects of psychological stress describing the experiment with animals: the mouse is placed in a cage next to another cage with a cat in it; and regardless of physical protection, the mouse undergoes strong activation of its nervous system in response to the cat's sounds and movements; thus, in a situation of prolonged tension and fear, nervous energy gets exhausted, causing severe distortions of vegetative reactions, resulting with death (*Selye, H. 1976*). Also nowadays there are significant research studies conducted on the negative impact of psychological stress on people's development and overall health (*Folkow, B. 2001*). Even if a child does not show the need to be part of his/her peer group and seems to remain indifferent towards exclusion, his/her nervous system is experiencing severe agitation, the level of stress gradually increases, persists high for a long time, resulting with exhaustion of the nervous system and health and psychological problems. Stress researcher R.S. Lazarus emphasizes that anger, hatred, envy, jealousy, fear, shame, sense of guilt are always associated with distress (*Lazarus, 2006*). When children are facing stress, as well as experiencing multiple emotions, they need help from an adult who can explain the situation and provide them the needed support.

In the school environment, the support and competence of the teacher is particularly important – both for educating the pupils and for regulating relations between them. In the early years of schooling, the teacher is the authority for the child, and his/her interventions have a significant impact on the child's development. When



starting learning at school, the children are motivated and determined to meet the demands of teachers and parents, which can serve as a driving force for the child's development, but if the demands are greater than the child's resources, and the results are assessed as not high enough, the child gets frustrated, lowering his/her self-esteem and motivation for learning in future. Also pupils whose achievements are considered as high often feel worried about maintaining their high marks and fearing to be mistaken (*Jimerson, Sharkey, Nyborg, et al. 2004*). Expectations of teachers and parents regarding achievements in tests, diagnostic works and Olympiads create psychological and emotional tension for the child, contributing to prolonged tension of the nervous system and increased stress levels (*Epstein, 1987, Kulbergs, 1998*).

In the age of 7-9, the child's daily rhythm is still adapted to the pre-school routine, characterized by variability, various types of physical and intellectual activities, free time and recreation. Also in the primary school, in Grades 1-3, the child continues to feel the need for different stimuli to brain activity, because his physiological, physical and mental qualities are not yet matured for a long period of uniform activity. Prolonged sitting, reading, writing, or manipulating with diverse information is difficult; it needs an extra effort.

Learning load analysis in the context of new educational content

Keeping in mind the trends of globalization, socialization and demography, labour market demands, paradigm shift in education and transformations in higher education, changes in educational content are taking place in Latvia, that is, gradually from 2020/2021, the competence-based curriculum will be introduced. As it is emphasized by the co-authors of the new competence-based curriculum in their study “*Mācīšanās lietpratībai*” (2018), “graduates of modern schools will do tasks what we do not know yet, solve the problems that we are not yet aware of. Therefore, preparing them, it is critical to pay attention that they are able to see opportunities and identify the problems, and are able to choose unprecedented solutions, continuing to develop new skills all life long (*Oliņa, Namsone, France 2018, 18*).

In 2017, the National Curriculum Centre started to implement a policy initiative encouraged by the government and the Ministry of Education and Science with the support of the European Union Structural Funds, in order to develop, approve and consistently implement over five years such educational content and approach to learning that would develop in pupils value-based knowledge, skills and habits needed for the life in 21st century. Thus, for the first time, the curriculum and approach to learning is examined and successively organized in a unified system for all formal education stages, starting from one and a half year old children in preschool and up to 18 years of age. The new curriculum is based on the idea stated in “Sustainable Development Strategy of Latvia until 2030” that education must be of high quality, accessible throughout life and oriented towards creativity in order to respond to the global competition and demographic challenges (*Valsts izglītības satura centrs 2017, 5*).

Educational content development begins with a vision about what each pupil should be like - a responsible member of society, a self-confident personality, who respects and cares about oneself and others, a creative person and an expert in growth, to whom learning has become a habit. The new Basic Education Standard (approved by the Cabinet of Ministers on November 27, 2018) determines a framework and organization of learning for implementing this vision in life and for providing pupils with opportunity to acquire the basics of



knowledge together with general or transversal skills (self-knowledge, self-management, thinking, creativity, collaboration, participation, digital competence) and value-based virtues (responsibility, diligence, courage, honesty, wisdom, kindness, compassion, moderation, solidarity, justice, tolerance). The objective of the perfected content and approach is to make learning topical, prevent the fragmentation, duplication and informative overcrowding of the content, ensure the continuity of curriculum, promote awareness of interconnections and the ability to apply the knowledge in praxis (*Skola2030, 2018*).

The Regulations of the Cabinet of Ministers on national basic education standard and basic education programmes state that the objective for implementing the basic education content is a fully developed and competent learner who is interested in his/her intellectual, socio-emotional and physical development, lives healthy and safe, learns with joy and interest, acts socially responsible and takes initiative, is a patriot of Latvia (*Ministru kabineta noteikumi Nr. 747*). As defined in the law, the purpose of the basic education content includes broad prerequisites for the child's development; a pupil needs emotionally and socially secure environment, support and encouragement, positive experience in the first primary school years, initially developed healthy self-confidence, which is at the basis for child's abilities to do things, be joyful and interested to learn (*Valsts izglītības satura centrs*). The vision of the learner is formed by expected outcomes, which are stated in the curriculum, including extensive work of learning and personality development.

The new curriculum provides that after Grade 3 (*Ministru kabineta noteikumi Nr. 747*), the pupil is able to:

- formulate open, cognitively oriented questions in situations related to personal experience. Simple information is compared, interpreted, assessed, linked and grouped according to the given criteria, searching for proven facts, checking them on one's own;
- develop the argumentation based in his/her experience and opinion; formulate one's own conclusions following the instructions;
- recognize and formulate the problem in the context related to personal experience; with the support of the educator, set the objective, offer solutions, and choose the best solution;
- describe his/her experience in similar situations, express the ideas for a solution. With the support of the educator, the solution plan of the selected problem is developed and implemented, learning several problem solving strategies and evaluating the achieved result;
- be open to new experiences. He/she is happy to fantasize about unusual possible solutions;
- ask questions about the current situation and apply several creative thinking strategies with the support of an adult; to create ideas, getting inspired from the work of others;
- arrive to new and useful ideas with teacher's support, and not give up if he/she fails to implement it, but tries again;
- set the goals for learning and plan the steps for accomplishing it with the support of an adult;
- tell about his/her learning progress and skills, as well as failure and mistakes;
- name and apply a number of strategies for retaining attention, memorizing and remembering;
- explain the impact of different emotions on his/her thinking and behaviour;
- follow the pre-set performance criteria and assess his/her learning work and experience with teacher's support during the study process;



- express in words his/her needs, thoughts and emotions, and explain how facial expressions and body language of other people relate to a particular emotion and how emotions affect relationships with others;
- purposefully direct the conversation (with the support of the teacher), in order to reach understanding and consciously use his/her social skills to establish and maintain positive relationships with others and engage in social activity;
- collaborate with others when performing common constructive tasks;
- see simple correlations in society (classroom, school, family and local community);
- notice that different people have different opinions; name one's own values;
- act according to his/her values with teacher's support;
- participate in accepting the rules and learning-related decisions, and act in accordance with the norms adopted by the public (with teacher's support). Carry out the duties entrusted, seeing the consequences that follow the action, and take responsibility for his/her work;
- use digital technologies in the learning process following the instructions;
- recognize the images and symbols created and promoted by the media;
- explain how digital technologies affect everyday life, and develop healthy and safe habits for the use of digital technologies (with the support of the teacher).

Evaluating the expected high results in Grade 1-3, it is necessary to assess the pupil's resources, while maintaining healthy emotional, psychological, social and physical health, as well as the teachers' ability to meet the demands that are set both towards pupils and also towards themselves.

In one basic education programme the work load may not exceed the following hours per week: Grade 1 - 22 hours; Grade 2 - 23 hours; Grade 3 - 24 hours; Grade 4 - 26 hours (*Ministru kabineta noteikumi Nr. 747*). The amount of tasks assigned and the results to be achieved, within the number of hours allocated to each subject, require a rapid learning pace or in-depth additional work at home, which potentially exceeds the hours per week, defined by law, and does not comply with the above-mentioned characteristics of children of the specific age group. The child builds self-confidence and learns motivation based on his/her ability to implement what is asked from him/her. Therefore, both the children who do not achieve the desired result and those whose performance is considered as satisfactory suffer from this extra effort.

According to the new basic education standard, the assessment is emphasized as an integral part of the learning process. Diagnostic tests are highlighted with their aim to help the teacher to assess the strengths and weaknesses of the learner and to know what support is needed in order to plan appropriately and efficiently the future learning process (*Valsts izglītības satura centrs*). However, emphasizing the importance of the diagnostic tests and the importance of the achieved results, the child is subjected to a prolonged psychological pressure and increased stress condition. Primary school Grade 1 – 3 pupil, whose self-confidence, work capacity and learning motivation is just developing, such kind stressor is not appropriate. Regardless diagnostic tests, the pupil daily faces performance or summative assessments, when the teacher evaluates and documents the pupil's learning outcomes against the planned outcomes (*Valsts izglītības satura centrs*). In practice, when comparing pupils' achievements and planned outcomes, it is particularly important that they are appropriate to the child's age and



resources. At school, children start learning at different levels of development, therefore in the early years of school the evaluation of a child's work by aligning it with general standards can influence child's self-esteem and learning motivation.

Conclusions

- The analysis of theoretical concepts reveals the multifacetedness of the concept of stress. The concept of stress mainly is linked to a stress-causing factor or stressor, which may be chemical, physical or psychological. In Grades 1-3, the stress causing factors may be related to relationships and requirements that do not match the child's age. A stressor triggers a stress response which is a physiologically and psychologically dynamic process in the human body, activating a short-term response to a problem situation, but has a long-term negative impact on the pupil's state of health and overall development.
- Primary school is the stage of the education system followed by preschool, and the child is experiencing a significant adaptation phase. The first years of school form the basis for further education, influencing the pupil's social, physical, cognitive, emotional and psychological development, as well as creating the potential for personality growth in the future. For this development to be successful, it is essential to set reasonable demands for pupils and also to provide the resources needed for meeting these demands in the pedagogical process.
- The introduction of competence-based education content in Latvia and the implementation of the vision of an ideal pupil depend on a number of internal and external influencing factors; however, attention has been paid to ensuring that the outcomes to be achieved and the workload for the pupils are congruent with the children's psychological and physiological abilities, ensuring the resources for reaching this goal. Based on the characteristics of Grade 1 - 3 pupils, the requirements set in the curriculum and the outcomes to be achieved can be evaluated as very high, which can only be implemented with increased effort, extra lessons and long-term concentration.
- If the requirements regularly exceed the resources, the pupil experiences increased stress levels, which, if prolonged, affect negatively the overall development of child's, as well as formation of his/her attitudes and abilities. It is essential to ensure positive age-related activities, systematic and purposeful working skills, healthy self-confidence, cooperation and self-management skills to allow the child to develop as a self-sufficient and active citizen. Positive stress experience in the childhood supports successful personality growth and development in the future.
- It is important to evaluate the causes of stress, not just manage its consequences. Further action research is needed in Latvian primary schools, Grades 1-3, assessing the practical workload of the pupils and determining their level of stress associated with learning.

References

- Berger, A. (2011). Human brain development series. Self-regulation: Brain, cognition, and development. Washington, DC, US: American Psychological Association. <http://dx.doi.org/10.1037/12327-000>
- Bikše, K. (2009). Labdien, skolotāj! Esejas, pārdomas, pētījumi. Rīga: Skola un Ģimene.
- Butler, G. (1993). Definitions of stress. Occasional paper (Royal College of General Practitioners), (61), 1-5.



- Duckworth, A. L., Gendler, T. S., Gross, J. J. (2014). Self-Control in School-Age Children, Educational Psychologist, 49:3, 199-217, doi: [10.1080/00461520.2014.926225](https://doi.org/10.1080/00461520.2014.926225)
- Erikson, E. H. (1950). Childhood and society. New York: Norton
- Erikson, E. H. (1963). Childhood and society (2nd Ed.). New York: Norton.
- Epstein, J. L. (1987). Toward a theory of family-school connections. Social interventions: Potential and Constraints. Walter De Gruyter, Bernil, New York.
- Folkow, B. (2001). Mental Stress and its Importance for Cardiovascular Disorders; Physiological Aspects, "From-Mice-to-Man." Scandinavian Cardiovascular Journal, 35(3), 163–172. DOI:10.1080/cdv.35.3.163.172
- Gumenyuk, V., Korzyukov, O., Alho, K., Escera, C., Schröger, E., Ilmoniemi, R. J., & Näätänen, R. (2001). Brain activity index of distractibility in normal school-age children. Neuroscience Letters, 314(3), 147-150. doi:10.1016/s0304-3940(01)02308-4
- Jimerson, S. R., Sharkey, J. D., Nyborg, V. et al. (2004). Strength-Based Assessment and School Psychology: A Summary and Synthesis. California Association of School Psychologists. <https://doi.org/10.1007/BF03340903>
- Kulbergs, J. (1998). Krīze un attīstība. 43.–47. lpp. Liepāja, Liepājas Pedagoģijas akadēmija.
- Latvijas pediātru asociācija. (2013). Stress bērniem un pusaudžiem: cēloņi un sekas, ārstēšana un profilakse.
- Lazarus, R. S. (2006). Stress and emotion: A new synthesis. New York, NY: Springer.
- Lazarus, R. S., Folkman, S. (1984). Stress, Appraisal, and Coping. New York: Springer.
- Lindsley, D. B. (1936). Brain potentials in children and adults. Science, 84, 354. <http://dx.doi.org/10.1126/science.84.2181.354>
- Merriam-Webster skaidrojošā vārdnīca. Pieejams: <https://www.merriam-webster.com/dictionary/stress>. Skat. 12.02.2019.
- Ministru kabineta noteikumi Nr. 747 (2018). Noteikumi par valsts pamatizglītības standartu un pamatizglītības programmu paraugiem. Rīga: Ministru Kabinets. Pieejams: <https://likumi.lv/ta/id/303768>
- Oliņa, Z., Namsone, D., France, I. (2018). Kompetence kā komplekss skolēna mācīšanās rezultāts. (pp. 18-43) In: Mācīšanās lietpratībai. Kolektīvā monogrāfija. Zin. red. D. Namsone. Rīga: LU Akadēmiskais apgāds.
- Pliners, J. (2002). Grūti audzināmu skolēnu uzvedības korekcija. Rīga "Izglītības soļi".
- Pliners, J., Buhalovs V. (2002). Skolas izglītojošā vide. Rīga: Izglītības soļi.
- Raščevska, M., Martinsone, B. (2014). Skolotāju aptaujas par skolēnu mācību darbību un uzvedību (SASMDU). Rīga, Latvijas Universitāte.
- Roge, J. (2008). Bērniem nepieciešamas robežas. Rīga: Jumava.
- Selye, H. (1936). A Syndrome Produced by Diverse Nocuous Agents. Nature, 138, 32. doi: 10.1038/138032a0
- Selye, H. (1956). The stress of life. New York: McGraw-Hill.
- Selye, H. (1971). Hormones and Resistance. Journal of Pharmaceutical Sciences, 60(1), 1-28. doi:10.1002/jps.2600600102
- Selye, H. (1974). Stress without distress. Philadelphia, PA: Lippincott.
- Selye, H. (1976). Stress in Health and Disease. Butterworths, Boston.



- Skola2030. (2018). Valdībā pieņemts valsts pamatizglītības standarts. Pieejams: <https://www.skola2030.lv/single-post/2018/10/12/Izskat%C4%AB%C5%A1anai-vald%C4%ABb%C4%81-iesniegts-pamatizgl%C4%ABt%C4%ABbas-standarta-projekts>
- Slimību un profilakses centrs (b.g.) Rokasgrāmata pedagogiem cieņpilnas komunikācijas kultūras veicināšanai klasē. Pieejams: https://www.spkc.gov.lv/upload/Projekti/ESF/Vizu%C4%81lie%20materi%C4%81li/buklets_print.pdf
- Strack, F., Argyle, M., Schwarz, N. (2001). Subjective well-being an interdisciplinary perspective. Oxford: Pergamon Press
- Svence, G. (1999). Attīstības psiholoģija. 101.–119. lpp. Rīga: Zvaigzne ABC
- Szabo, S., Tache, Y., Somogyi, A. (2012). The legacy of Hans Selye and the origins of stress research: A retrospective 75 years after his landmark brief “Letter” to the Editor of Nature. Stress, 15(5), 472-478. doi:10.3109/10253890.2012.710919
- Valsts izglītības satura centrs. (2017). Izglītība mūsdienīgai lietpratībai: mācību satura un pieejas apraksts. Rīga. Vinnīņa, S. (b.g.). Izdegšanas sindroms skolotājiem. Rīga. Pieejams: http://psihosomatika.lv/public/files/Izdeg%C5%A1anassindroms_Dr._Vinnina.pdf
- Wheaton, B. (1999). The nature of stressors. In A. V. Horwitz & T. L. Scheid (Eds.), A handbook for the study of mental health: Social contexts, theories, and systems (176-197). New York, NY, US: Cambridge University Press.



Analysis Of The Influence Of The Education Level On The Female Entrepreneurs' Sustainable Social Business Activities: Azerbaijan Case

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Abstract

Education is one of the key factors that influences the definition of entrepreneurial women and helps to realize the potential and awareness of existing entrepreneurship characteristics in women. In today's developing world, it is important that companies and people's approach are very careful in solving social problems. Entrepreneurship is thought to be the most effective tool in increasing its market share. Social business is one of the key solutions to global challenges such as poverty reduction, employment growth and social reintegration. This study, aimed at the sustainability of women entrepreneurs engaged in social activities in Azerbaijan, has examined the effect of education on how well informed women are and the main factors driving them to this field. For this purpose, the entrepreneurship and social management of women were examined theoretically and systematically. The role of education in women entrepreneurship and the effect of education levels and educational activities of women entrepreneurs in the field of social entrepreneurship in Azerbaijan were examined, as well. Finally, proposals were made on the basis of theory, world experience and analysis.

Keywords: Social Business, Women Entrepreneurship, Education, Sustainability

Introduction

Women entrepreneurs are known as individuals who have accepted a difficult task for being economically independent and meeting their personal needs (Dharmendran, 2016: 70). Millions of women around the world are engaged in entrepreneurial activity. It is noticed that the companies owned by women are successful and have made high level of progress (Rosenberg, 2007: 1-5). Participation of women in entrepreneurial activity stimulates other women, creates new ideas in the society, and ensures high-level education of future generations. If a woman is engaged in entrepreneurial activity and creates a new job place, unemployment is reduced, the individuals with physical disabilities, martyr families, those deprived of family protection, etc. can be provided with job. The more women are developed and have broad outlook, the more that society is advanced. In all economies, female entrepreneurs have a great impact on innovation, employment growth and material opportunities (Brush vd 2009). There are various reasons for directing towards entrepreneurship, but higher level of education, family and income play a key role within each reason. In the literature, the desire to carry out their innovative ideas, having the social status and the self-confidence, the desire to support the family, the need for additional income, decision-making freedom and the desire to be independent and the desire for self-realization, ensuring the good future for the children, to be a good example for others, the continuation of family business emphasize that women are directed towards the entrepreneurship. In developing countries, women's involvement in the labor force is crucial for ensuring the development of the economy and society (Vita et al., 2014).

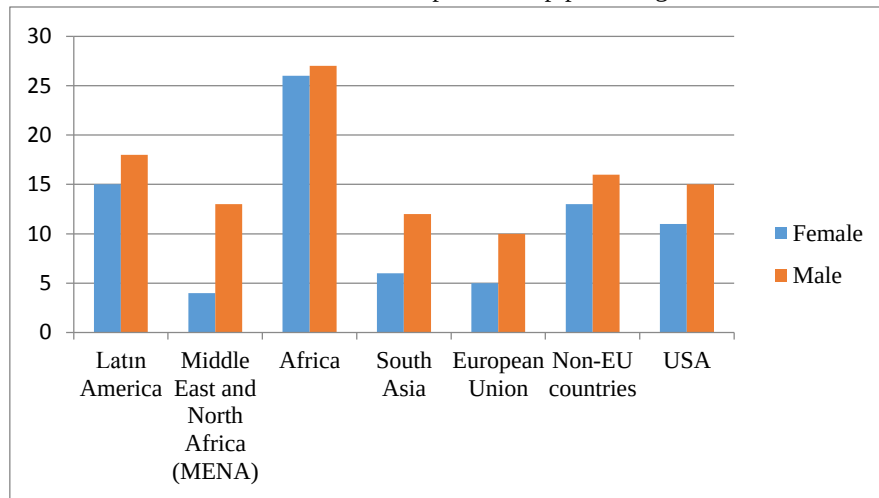
In Denmark, the percentage of the women establishing new business is 30% and their self-employment level is 25% (Neergaard, 2006). And in Finland, 33% of all women provide themselves with job through entrepreneurial activity (Kovalainen and Arenius, 2006). In Hong Kong, the study revealed that parents being entrepreneur has a positive impact on women's entrepreneurial spirit, and many female entrepreneur's parents are also involved in entrepreneurial activity (Pue Ho Chu, 2004: 172).

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Chart 1: Total entrepreneurship percentages



Source: Xavier Vd., 2012, p. 29

Chart 1 shows a significant difference between the male and female entrepreneurs in MENA region and in the European Union. According to the results of the GEM study, the percentage of women who discontinue or completely stop their entrepreneurial activity is less than men (Kelley et al., 2010: 32).

"Entrepreneurship" for women entrepreneurs in Chile, Tunisia, the Netherlands, Columbia, Ghana and Italy means a good career; in countries like Finland, Egypt, Angola, Iran, China, Israel and Greece – high status; in countries like Saudi Arabia, Taiwan, Brazil, Australia, and Malaysia – to be known and accepted by society. (Kelley et al 2011: 17)

According to the statistical reports of 2017, more than 11.6 million companies in the USA belong to women and their total income is \$ 1.7 trillion (State of Women-Owned Businesses Report 2017). The companies owned by women are more than 51%, and it comprises 39% of private firms and 8% of employment and 4.2% of income. One of the five companies with revenue of \$ 1 million or more is owned by female entrepreneurs. 4.2% of all women-owned businesses can make 1 million or more profit (Women Business Owner Statistics 2017).

In general, we see that women's entrepreneurship is at a high level in Canada, and opportunities and chances are created for that. The reasons for having a very good level of women entrepreneurship in the US and Canada is explained by the following factors (Littlejohn, 2006: 109-111):

- Creation of the "Duty Force of Women Entrepreneurs" in the USA in 1972 and the Canadian Presidential Task Force created in Canada in 2002-2003,
- Existence of detailed investigations and regular reports about women's entrepreneurship,
- Support and promotion provided by state to NGOs (Non-Governmental Organizations)
- High level of organization of women entrepreneurship, headed by the International Women's Business Council (NWBC)
- Existence of an international and permanent contact network for women entrepreneurs to provide information, advice and support services,
- Encouraging large-scale investment elements such as micro-credit, bank loans, business fund, and incentive levels,
- Existence of regular rewarding and promotion mechanisms for women entrepreneurs
- Keeping women entrepreneurial role models at the forefront,
- Businesses with women entrepreneurs have a mission to compete in international markets



Women's Education Level

Education on entrepreneurship can be specified as the purposeful intervention by an educator in the life of the learner to impart entrepreneurial qualities and skills to give a chance to the learner to survive in the world of business. Albert, Sciascia and Poli (2004) defined entrepreneurship education as the structured formal conveyance of entrepreneurial capabilities, which in return refers to the concepts, skills and mental awareness used by individuals during the process of starting and developing their growth-oriented ventures. Sexton and Smilor (1997) define entrepreneurship education as a formal structured instruction that conveys entrepreneurial knowledge and develops in students, focused awareness relating to opportunity, recognition and the creation of new ventures. Mauchi et al., (2011) cited in Jones and English (2004) the definition of entrepreneurship education as a process of providing individuals with the ability to recognize commercial opportunities and the knowledge, skills and attitudes to act on them. Therefore, entrepreneurship education can be seen as process of imparting learners with entrepreneurial knowledge, skills and attitudes through a formal structured instruction. A formal structured instruction is usually guided by well defined aims, goals and objectives of a specific program. Entrepreneurship education and training programmes are aimed directly at stimulating entrepreneurship which may be defined as independent small business ownership or the development of opportunity-seeking managers within companies Colton (1990).

The existence of a strong connection between education and entrepreneurial success has been well documented in academia. (Ascher 106.) Education plays an essential role in entrepreneurship by providing a wide range of skills necessary for opportunity identification, and the ability to establish a business, as well as efficiency of decision-making. All of these are crucial aspects of the entrepreneurial culture, as they have a direct impact on profitability, growth rates, job formation and value creation that businesses display. The availability of formal training, as well as the range of educational opportunities individuals benefit from prior to their engaging in entrepreneurial endeavor, can significantly enhance the efficiency of entrepreneurs, as well as their capacity to grow businesses and to create value within the market on which they operate. Furthermore, entrepreneurs who benefit from higher levels of education are significantly more likely to innovate compared to entrepreneurs with little to no education. Innovation consists of the capacity to offer new products and services to consumers, (4 GEM 32.) and is thus crucial to the entrepreneurial process.

Level of Education in Different Countries

The average education level of women entrepreneurs differs from country to country. To compare countries, an average indicator was calculated weighting the three education levels: 1 for the low level, 2 for middle level and 3 for high level. Thus, an indicator value of 1 indicated that all entrepreneurs had attained pre-primary, primary and lower secondary education. An indicator value of 3 meant that all entrepreneurs had attained first and second stages of tertiary education. Data provided referred to the highest attained level achieved by an entrepreneur.

In 2012, women entrepreneurs in Europe-37 attained on average level 2.1 and men entrepreneurs level 1.9. In EU-28, the levels were 2.1 for women entrepreneurs and 2.0 for men entrepreneurs, indicating that women were slightly more highly educated than men entrepreneurs. The top five countries with the highest average education level of women entrepreneurs in 2012 were Estonia, Ireland, Belgium, Germany and Luxembourg, and with the lowest average education level were Turkey, Albania, Portugal, Romania and Croatia. The top five countries with the highest average education level of men entrepreneurs were Estonia, Germany, Luxembourg, Switzerland and Liechtenstein, and with the lowest were Turkey, Albania, Portugal and Croatia. In 2008, women entrepreneurs in Europe-37 attained level 2.0, and men entrepreneurs' level 1.8. In EU-28, the levels attained were 2.0 for women entrepreneurs and 1.9 for men entrepreneurs. These figures indicate that women entrepreneurs attained a slightly higher education level than men entrepreneurs. Compared with 2008, the educational level of both women and men entrepreneurs in Europe-37 increased slightly in 2012 while educational level of entrepreneurs decreased slightly in EU-28.



Social Business

In the modern world, scientific researches on social business is gaining importance. Many of the world's most acute social problems have spread and enrooted so much that it cannot be solved by governments and traditional social sector organizations. The solution of these problems requires different approaches from both private and public sectors. A wide range of new models emerge from non-profit organizations supported entirely by donations and on the other hand, from purely profit-oriented businesses throughout the spectrum. When connecting business principles to social goals, emerging models build a bridge between social and private sectors.

Laureate of the Nobel Peace Prize, Professor Mohammad Yunus' social business conception is very acute in the world and is getting increasing ever more the basis of this concept is to build a world without poverty. Social business is a business model that meets the compulsory requirements of humanity. Social business operates in many ways, such as commercial businesses, but since social impact is the primary goal of this business, all profits need to be integrated into the business or used for the organization of the public work. That is, energy is spent on human needs rather than profits, and social business gains with earned profit. Investor can only take startup capital. Management in social business is traditional and wages are paid referring to the market. Success is measured not by profits, but by the benefits generated.

The difference between social business and ordinary business is that social business is completely incompatible with the idea of personal gain in business (Kickul et al., 2012, pp. 457). However, unlike the enterprises that maximize profits, the main factor promoting social business entrepreneurs is solving social problems, so social business is created for the collective benefit of others. (Grove and Berg, 2014). Thus, the role and contribution of social business is essential for sustainable development because social business promotes human development through economic, environmental, and socially sustainable human choices (Humberg and Kleemann, 2014). Contrary to businesses willing to maximize profits, the focus is on solving a social problem, so a social business is being created for the collective benefit of others. (Grove and Berg, 2014). Therefore role and contribution of business are very important for sustainable development, social business Development of social business plays an indispensable role in raising the level of wellbeing, leading to the elimination of unemployment and poverty reduction, the development of small and medium-sized businesses, and the long-term solution to social problems in society. Social Business promotes the development of vulnerable areas in the country (Fariz, Aytan and Ulkar, 2019)

Impact of Education on Women's Sustainability in Social Business in Azerbaijan

In Azerbaijan, 50.1% of the population is women and according to the reports of 2018, the number of eligible working women is 3349.7 thousand people. Statistical indicators show that development indicators of female entrepreneurship are different across the regions. While some regions have high entrepreneurial indicators, the highest indicator is in the capital, Baku. According to the State Statistical Committee of Azerbaijan, the number of women engaged in entrepreneurship in our country is 170934 people.

There is no restriction or concession for women engaged in entrepreneurship in the legislation. Men and women can build work on the equal rights. The focus on women's entrepreneurship in the Strategic Roadmap of the United Nations is an indication that the acceleration of women entrepreneurship development is a priority for the state. The Strategic Roadmap envisages creating incentive mechanisms, developing information support, establishing business incubators, establishing women's entrepreneurship associations and professional organizations (Strategic Roadmap 2019) as an action plan for women entrepreneurship development.

Analysis

Hypothesis 1 Higher education level of female entrepreneurs operating in Azerbaijan has a direct impact on their self-esteem.

Hypothesis 2 Sustainable development of social business in Azerbaijan is directly related to education and information.



In 2019, the author (Bayramova, 2019) conducted a survey among 316 female entrepreneurs as a part of her investigation. Based on the responses of women entrepreneurs, 33 women had secondary school education, 27 had complete secondary school education, 160 had bachelor degree and 96 master / PHD degree. At the same time, the following table was obtained based on survey results. Anova analysis, conducted between the questions of Education and Self-Confirmation, revealed that the women with secondary vocational education were less courageous than other women in the survey. When we look at direct influence of education to women, we see that the women with secondary vocational school don't have self-belief while the women with Bachelor and Master / PHD degree are more self-esteemed.

Table 1: “Your education” and “Trust yourself” Anova analysis
I believe myself

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	,847	3	,282	1,368	,253
Within Groups	64,353	312	,206		
Total	65,199	315			

I believe myself

Your education?		N	Subset for alpha = 0.05
			1
Turkey HSD ^{a,b}	Complete secondary	27	1,1111
	Secondary vocational	33	1,1515
	Magister/PHD	96	1,2500
	Bachelor	160	1,2688
	Sig.		,329
Scheffe ^{a,b}	Complete secondary	27	1,1111
	Secondary vocational		
	Master/ PHD		
	Bachelor		
	Sig.		
	Secondary vocational	33	1,1515
	Master/ PHD	96	1,2500
	Bachelor	160	1,2688
	Sig.		,414

The first example of social business in Azerbaijan is "ABAD" (<http://abad.gov.az/>) created as a center for socially-oriented projects to support active participation of citizens in the socio-economic development of the Republic of Azerbaijan and the development of small and medium-sized businesses and the formation of competitive households.

There are also examples of social business, such as small and medium-sized businesses, each of which has a social mission. While there are no statistical reports on social business in Azerbaijan, the majority of entrepreneurs engaged in social business in Azerbaijan have been identified as women during the scientific research conducted by the author (Zeynalova, 2019) in 2019.

In an interview with other respondent Sara Rajabli, founder of BUTA Art & Sweets Social Business told that "I started to investigate this field after attending 2 Erasmus + trainings in Germany for 1 semester education and social entrepreneurship. I mainly worked with books, articles, and TEDx speeches, to master this field" and that this interest was created within the program outside the country. In the interview, other respondent, the first Azerbaijani social entrepreneur women, the founder of social platform Zarangiz Huseynova, name of which entered in the Forbes told that "I went to America, heard about social business, went through the program and realized that this is an ideal model for me." In an interview with Nargiz Askerova, founder of the NEW



HORIZONS social project told that "I started the project NEW HORIZONS when I was in Canada. And there were all the resources I needed. Because this field has been developed very much there. There it is thought at the state level that the development of entrepreneurship should be based namely on social entrepreneurship. When I was in Canada, while attending the "2018 DOT OTTAWA" program, this program was for young people who already had a social business plan and wanted to develop their idea throughout the program. And as a resource, I have benefited from the resources of that "2018 DOT OTTAWA". At the same time, saying "I benefited from my network there", emphasized that social business opportunities are more extensive outside the country. At the same time, social business owners were interviewed. Most female entrepreneurs interviewed were informed about social work programs and courses outside the country. When it comes to the business activities of women engaged in social business in Azerbaijan, we see that education is an important factor in the sustainability of this field.

Result and Suggestion

The participation of women involved in social-cultural, political, and intellectual change of the country in social business to contribute to the solution of society's problems is important for the rapid development of this process. Addressing of social business to a large number of social businesses and long term sustainability are related to education. Studies show that women with higher education in Azerbaijan are more self-confident than other women in entrepreneurial activity. Educated women start a step in social business as well as in all areas. The reason is that the educated woman is more informed and has a broader network.

The surveys suggest that information about social business in Azerbaijan are more accessible for women to refer to foreign country bases. Gaps in education in this area are one of the key factors that adversely affect the sustainable development of social business. Thus, the absence of the subject matter and the lack of funds in the Azerbaijani language in this field, as well as the lack of propaganda, prove that.

The study started with two hypotheses. The first hypothesis "The level of women entrepreneurs functioning in Azerbaijan has a direct impact on their self-esteem" is confirmed in Table 1 during the study. Hypothesis 2 "Sustainable development of social business in Azerbaijan is directly related to education and information" interviews have been confirmed by the hypothesis that female entrepreneurs dealing with social affairs in Azerbaijan are directed to this field through information and education.

Taking into account all this, the education level of women entrepreneurs should be improved in order to ensure sustainable development of social business in Azerbaijan, and the information should be accessible and accurate.

1. Regular investigations regarding women entrepreneurship should be conducted and reports should be developed.
2. Social business should be taught at universities.
3. Social business information should be accessible from one center.
4. Preparation of social business resources in Azerbaijani language.
5. Samples of social business in the world should be applied to female entrepreneurs in Azerbaijan.
6. Establishing cooperation among women entrepreneurs and local women entrepreneurs engaged in successful social business in the world
7. Enhance educational work and increase the number of trainings in this area.
8. Providing funding for the best ideas and projects by the Government
9. Information about female entrepreneurs who develop social business through education should be disseminated through media (PR)
10. The women are to be inspired about the social business in solving international problems.

References

Fariz Ahmadov, Aytan Huseynli and Ulkar Zeynalova "Comparative Analysis Of The Current Situation And Development Prospects Of The Former Soviet Union Republics In The Social Business" Economic and Social Development, p 1454-1462, Baku, 14-15 February 2019



- Littlejohn, V., (2006). "Women Entrepreneurship: An Important Issue for Global Policy Agenda". OECD# SME and Entrepreneurship Outlook 2005 (p. 107-118). Paris: OECD Publishing
- Women Business Owner Statistics 2017 <https://www.nawbo.org/resources/women-business-owner-statistics>
- State of Women-Owned Businesses Report 2017
https://about.americanexpress.com/sites/americanexpress.newshq.businesswire.com/files/doc_library/file/2017_SWOB_Report_-FINAL.pdf
- Kelley, D.(2011). Women's Entrepreneurship Around the World. Entrepreneurial Dynamics Conference Warsaw, Poland December 17, 2011. <http://www.parp.gov.pl/files/74/75/76/479/15332.pdf>
- Kelley, D.J., Brush C.G., Greene, P.G.. & Litovsky, Y. (2011). Global Entrepreneurship Monitor: 2010 Women's Report. <http://www.gemconsortium.org/docs/download/768>
- Xavier, S.R., Kelley, D.J., Kew, J., Herrington, M. & Vorderwülbecke, A.(2012) Global Entrepreneurship Monitor: 2012 Global Report. <http://www.leo.itesm.mx/GEM/Reporte%20Global%202012.pdf>
- Pue Ho Chu, P(2004) The Making of Women Entrepreneurs in Hong Kong. Aberdeen, Hong Kong: Hong Kong University Press.
- Kolvalainen, A. & Arenius, P. (2006). Country Report on Finland, in C. Brush, N. Carter, E. Gatewood et al. (eds) The Diana Project International: Growth Oriented Women Entrepreneurs and their Businesses: A Global Research Perspective (New Horizons in Entrepreneurship).
- Neergaard, H. (2006). Country Report on Denmark, in C. Brush, N. Carter, E. Gatewood et al. (eds) The Diana Project International: Growth Oriented Women Entrepreneurs and their Businesses: A Global Research Perspective (New Horizons in Entrepreneurship).
- Rosenberg, Michelle (2007); Inspiring Women: How Real Women Succeed in Business, Surrey: Crimson Publishing, http://www.amazon.co.uk/InspiringWomen-Entrepreneurs-Succeed-Business/dp/1854584103#reader_1854584103
- Dharmendran, A., "A Study on Women Entrepreneurship Development Through Self Help Group", Shanlax International Journal of Management, IV/1, 2016, s. 69-74
- Castellani, F. ve Lora, E. (2014). Is Entrepreneurship a channel of social mobility in
- Hisrich, R. D. ve Peters, M. P. (1998). Entrepreneurship (4. Baskı). Boston: Irwin/ McGraw-Hill.
- Ufuk H. ve Özgen Ö. (2001). The profile of women entrepreneurs: a sample of Turkey. International Journal of Consumer Studies, 25(4), 299-308.
- Brush, C. G., Bruin, A. & Welter, F. (2009). A Gender-Aware Framework For Women's Entrepreneurship. International Journal of Gender and Entrepreneurship, 1(1):8-24. doi: 10.1108/17566260910942318
- Vita L.D., Mari M. & Poggesi S. (2014). Women Entrepreneurs in and from Developing Countries: Evidences from the Literature. European Management Journal, 32:451-460. doi:10.1016/j.emj.2013.07.009
- Albert F. Sciascia S. and Poli A. (2004). Entrepreneurship Education: Notes on an Ongoing Debate. Proceedings of the 14th Annual Internet Conference, University of Napoli Federico II, Italy, 4-7 July.
- Sexton, D. and Smilor, R. (1997). Entrepreneurship. Upstart Publishing Company. Chicago Illinois. Van de Kuip. I. and Vernheul, I (2003). Early Development of Entrepreneurial Qualities: the role of initial education. Centre for Advanced Small Business Economics Erasmus University Rotterdam.
- Mauchi ET AL., (2011). Entrepreneurship education lessons: a case of Zimbabwean tertiary education institutions. Educational Research, 2(7), 1306-1311.
- Jones, C. and English, J. (2004). A contemporary approach to entrepreneurship education. Educ. Training, 46(8), 416-423.



Predictive Assessment and Modeling of Commodity Markets in order to Determine the Parameters of the Membership Function

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Abstract

Problems of forecasting and modeling of commodity markets is relevant, due to the fact that the prospects for the purpose of their development that determines the main directions of important sectors of the economy, which includes industry, agriculture and trade. The main purpose of this study is to provide a prognostic assessment of such commodity markets as the industrial commodity market, the agrarian commodity market, and the consumer goods market. In addition, another goal is to investigate the modeling issues of the individual components of these markets, which involves modeling the management of commodity markets; modeling the process of import substitution; modeling the process of forecasting an innovative product, etc. Overall, the scope of work includes following findings: forecasting the product market of industrial products and its assessment, predictive assessment of the main parameters of the agrarian commodity market, the forecast estimate for the main parameters of the consumer product market.

Keywords: Forecasting, Modeling, Commodity market, Parameters

Main Part

Introduction

In order to study the main components of the modeling of commodity markets, initially it is necessary to identify the basic approaches in this area, which are supply and demand, as well as the definition of the points of their contact.

For their in-depth research, the following definition of demand is proposed - the total demand for goods (food and non-food) of various types, operating within the existing cash equivalent of customers. The following definition of supply is proposed - a certain amount of various types of goods that are laid out on the commodity market at a certain money price with the purpose of commercial processes.

It is concluded that the category of supply and demand is not formalized in the commodity market statically, but formed and based on the relevant market laws and patterns and, as a result, there are lines of supply and demand, on the basis of which the process of their intersection at the equilibrium point occurs.

The author proposes to include a “forecasting” block in the simplest paradigm of the market (for calculating short-term, medium-term and long-term market components), developed according to the principle of “basic conditions — market structure — behavior — performance” (“modeling” supplemented by modern scientists).

Method

The formation and the construction of a model of supply and demand is the next stage in the research of the commodity market. For this reason a flowchart of the relationship of the commodity market with a mathematical model is developed. The product market model is depicted by a vectorial problem consisting of supply and demand lines. In particular, the determination of demand lines in the form of a linear relationship, when the demand for this



product is given as the initial one from the market price, income and other parameters. At the same time, the product supply line is characterized by the number of goods presented, depending on market price fluctuations.

It is noted that the linear function of the demand is presented as a form of reflection, in which the demand is estimated depending on market prices, income, etc.

In addition, the models of the commodity market, expressed in the aims of all producers and consumers, and solved as the problem of linear programming, are considered. In this case, it is concluded that the mathematical model of the commodity market in its intended purpose should include the aims of market players taken together.

The issues of modeling individual components of the commodity market are also investigated, which include the following: modeling the management of commodity markets; modeling the process of import substitution; modeling the process of forecasting an innovative product, etc.

For modeling the management of commodity markets, three flowcharts have been developed and proposed as follows: model of a commodity market management system; goods modeling process based on correlation analysis; product forecasting in the commodity market management system.

The difficult point in the study of the consumer goods market is the choice of forecasting methods that differ from other commodity markets. Therefore, it is proposed to use a set of methods for predicting a consumer product market in the following areas: the method of expert assessments; balance method; regulatory method; extrapolation method; modeling method; economic forecasting method, as well as artificial intelligence methods, which in our case include a hybrid combination of fuzzy logic with a neural network - fuzzy neural networks (FNN) [4,5].

Studies have shown that not all criteria and indicators of forecasting methods lend themselves to mathematical formulation, and in most cases they require their inclusion in forecasting models, evaluations and decision making as the most desirable and important factors. In this regard, fuzzy logic is the most popular method that combines the human mindset of fuzzy systems [6] by using fuzzy sets and a linguistic model consisting of a set of fuzzy rules IF-THEN. On the other hand, having on hand a large amount of information, it would be necessary to analyze their retrospectiveness and further predict their dynamics of change based on learning algorithms based on neural networks [5].

In general, the algorithm for predictive evaluation and modeling of commodity markets is as follows: selection of the architecture and selection of parameters of a fuzzy neural network; selection of training and test data; network training; network testing on a selective data set; using the network as a prediction tool; and possible pre-training.

The main idea of choosing the parameters of a fuzzy neural network is to use the existing data sample to determine the parameters of the membership functions [6], which are best suited to the logical inference system. To find the parameters of the membership functions, neural network learning algorithms are used.

FNN is able to process large data sets, analyze the similarity of respondents, identify patterns and predict the future. FNN show good results in building predictions due to the skill of learning. And, unlike traditional approaches to solving the problem of forecasting and classification, predictive analytics easily adapts to changes in behavior — when new data arrive, it becomes better [2,3].



Findings

Forecasting the product market of industrial products and its assessment gave the following results:

- forecast estimate for the period 2018-2020: retail price indices for industrial production can vary between 1.391 and 1.567; the fluctuation of the share of growth in enterprises may be in the range of 25.9% -29.52%; fluctuation in the average growth rate of industrial production is a value in the range 1,029-1,091;
- forecast estimate for the Herfindahl-Harsman coefficient (HHI) for 2018-2020 period can reach values above 3000; the Hall-Taydmon index (HT) will reach from a value of 0.187 in 2017 to 0.219 in 2020; the ratio of the relative concentration (k) will increase from 3.5 to 3.97; the maximum share index ($I_{\max}$) - from 0.204 to 0.139; Ginny concentration ratio (G) —down from 5.162 to 4.99;
- a forecast estimate of the capacity of the industrial commodity market for 2017-2020 will increase from 56.9% to 59.65;
- the effectiveness of innovation and investment activities of industrial firms for the study period will increase from 0.357 to 0.79.

Predictive assessment of the main parameters of the agrarian commodity market gave the following results:

- the level of the dynamics of a number of productions in the agricultural market increases from 1,046 (2017) to 1,055 (2020); the average growth rate of the innovation kind will accordingly increase from 2.22% to 4.160%; the crop growth index will increase from 1.012 to 1.097, and to livestock from 1.033 to 1.126;
- calculations by the method of econometrics gave the following results for the study period: by profitability - from 0.965 to 1.211; net income from 0.834 to 1.818; on return - from 14.1 to 14.7; by sales profitability - from 12.9 to 13.56;
- forecast estimate for coefficients and index indicators: Herfindahl-Harsman coefficient (HHI) - from 169.0 to 171.4; Hall-Tidemon index (HT) - from 0.769 to 0.285; coefficient of relative concentration from 0.105 to 0.301; entropy coefficient - from 9.5 to 9.66; the maximum share index is from 0.759 to 0.200; Ginny concentration ratio from 20.59 to 2.614; share of the capacity of the commodity market of food products - from 56.1% to 58.22%.
- the efficiency of innovative investment activity of agrarian firms will decrease slightly from 0.384 to 0.291.

The forecast estimate for the main parameters of the consumer product market yielded the following results:

- indices of the total turnover of goods for the study period will increase from 1.022 (2017) to 1.265 (2020); retail turnover, respectively, from 1,025 to 1,232; supply turnover - from 1.034 to 1.283; turnover of paid services - from 1,012 to 1,141;
- The forecasted estimate of the retail turnover index for food products is from 1.019 to 1.142, for non-food products from 1.031 to 1.340; the share of food products from 50.7% to 53.16%, and non-food products from 49.3% to 49.84%; per capita retail turnover - from 3,623.3 manat to 6,149.2 manat.
- the forecast market valuation of the company in total revenue in general will increase from 0,684 to 1,584; for food products - from 0.270 to 0.438, for non-food products from 0.262 to 0.421;
- forecast estimates based on coefficients and index indicators, respectively: Herfindahl-Harsman coefficient (HHI) - from 225 to 809; Hall-Tidemon index (HT) - from 0.666 to 0.888; coefficient of relative concentration from 0.003 to 0.011; entropy coefficient - from 3.333 to 5.195; the maximum share index is from 0.378 to 0.562; Ginny index - from 1,878 to 2,042;
- the share of the market capacity of food and non-food products - from 70.8% to 74.91%; effectiveness of innovation and investment activity of firms - from 0.004 to 0.006.

The forecast assessment of the republic's commodity markets (industrial commodity market, agrarian commodity market, consumer goods market) showed that, in general, there is a positive trend in the development of commodity



markets in the future. Both commodity producers and commodity consumers will find their worthy place not only in the domestic, but also in foreign markets.

The lag in export products (with the exception of energy resource products and combustible materials) remains the main problem. The export of goods of the country requires a radical change in this area, which can be solved by the development of the non-oil sector of the republic's economy.

The study of the country's commodity markets (industrial products market; agricultural commodity market; consumer goods market) should be carried out by systems analysis methods using artificial intelligence methods, which makes it possible to study the commodity markets of the republic as a whole. It is the use and application of systems analysis based on artificial intelligence methods that helps to identify both positive and negative sides.

Results

The system analysis has been applied and the diagnostics of the agrarian commodity market of the country is done, which helped to identify a number of positive and negative sides.

To the positive features of the development of the agrarian sector of the country can be attributed the fact that for the years 2003-2017 total agricultural production in the country increased from 1.4 billion manat to 6.6 billion manat or 4.5 times, including crop production - from 0.8 billion manat to 3.0 billion manat or 3.7 times; livestock products - from 0.6 billion manat to 3.6 billion manat or 5.5 times.

A significant shift occurred in agricultural enterprises, the output of which increased from 41.6 million manat to 645.4 million manat, including crop production from 10.3 million manat to 238.5 million manat; livestock - from 31.33 million manat to 406.9 million manat.

The individual entrepreneurial activity in the agrarian sector has significantly intensified, the production of which for the period under study has grown from 1.4 billion manat to 5.9 billion manat, including crop production - from 0.8 billion manat to 2.9 billion manat; livestock - from 0.6 billion manat to 3.1 billion manat.

The productivity in all areas of the agricultural sector has also significantly increased.

To the negative features of the development of the agricultural sector can be attributed to the fact that during 2010-2017 the ratio of sowing, cereals, potatoes, vegetables, melons and industrial plants has practically not changed and does not fully correspond to the agrarian commodity market.

The productivity of livestock products and birds in all categories is growing at a slow pace, and in some (in eggs) it has even decreased significantly. The number of livestock per 100 people of the rural population is increasing very slightly; average annual food production per capita is growing at a low-rate; the number of agricultural enterprises has decreased significantly; innovation and investment activities of the agricultural sector should also be intensified.

When analyzing the industrial product market (using the manufacturing industry as an example), a systematic approach was used, which made it possible to comprehensively diagnose this industry.



The following stages of the structural analysis of the manufacturing industry, which is the basis of the commodity market, are proposed: general analysis; general index analysis; production index analysis; investment analysis; analysis of manufacturing enterprises. Accordingly, the following conclusions were made:

- for 2013-2017. In general, in industry, the additional cost increased from 26.4 billion manat to 28.1 billion manat; total profit - from 24.4 to 24.9; net profit decreased from 23.5 to 23.0; the number of employees is from 197.2 thousand to 197.1 thousand. The indices in the industry as a whole decreased from 95 to 92, but in the manufacturing industry they are increased from 107 to 129. At the same time, the production index indicators of this sector of industry decreased from 105.8 to 98.0.
- for 2013-2017, index indices of producer prices of manufacturing products sharply increased from 102.0 to 130.3. Weak indicators are observed in investment activity, which for the study period decreased from 888.9 million manat to 652.6 million manat and amounted to 73.4%.
- in manufacturing enterprises, there is a certain positive trend, as their share in the total output of products for 2013-2017 increased from 21.4% to 24.4%.

Conclusion

It has been concluded that in terms of development the consumer goods market is significantly ahead of the industrial and agricultural markets of the country. So, in particular, for 2003-2017 the total volume of trade in the republic increased from 3.6 billion manat to 45.3 billion manat (12.6 times), including retail turnover from 3.0 to 35.3 (11.6 times); turnover of public catering - from 33.7 million manat to 1.4 billion manat (41.6 times); turnover of paid services - 0.6 billion manat to 8.6 billion manat (14.6 times).

A positive trend is observed in terms of retail trade for food and non-food products. During the study period, the share of consumer trade in food products decreased from 69.2% to 50.7%, and in non-food products increased from 30.8% to 49.3%, indicating a significant increase in the living standards of the population of the republic. During the study period, the volume of retail trade per capita increased significantly from 369.8 manat to 3,623.2 manat.

Studies have confirmed that the country's commodity markets are mainly developing and expanding, and the existing shortcomings will be eliminated in the near future according to the accepted state programs of the republic's social and economic development in all important areas.

References

- Azərbaycanın Statistik Göstəriciləri (2018). AR DSK. Bakı: Statistika
- Alekperov Ramiz Balashirin, Ibrahimova Kyonul Akbar. (2018). Neural Network Modeling and Estimation of the Effectiveness of the Financing Policy Impact on the Socio-Economic Development of the Socio-Educational System. 13th International Conference on Theory and Application of Fuzzy Systems and Soft Computing — ICAFS-2018
- Alekperov Ramiz Balashirin, Iskenderli Ilhama Tarlan. (2018). Application of Neural Networks for Segmentation of Catering Services Market Within the Overall System of Consumer Market on the Model of Restaurant Business with the Aim to Advance the Efficiency of Marketing Policy. 13th International Conference on Theory and Application of Fuzzy Systems and Soft Computing — ICAFS-2018.
- Jang, Sun, Mizutani (1997). - Neuro-Fuzzy and Soft Computing - Prentice Hall, p. 335-368, ISBN 0-13-261066-3
- Rafik A. Aliev Bijan Fazlollahi Rashad R. Aliev (2004). Soft Computing and its Applications in Business and Economics. Springer-Verlag Berlin Heidelberg.
- Zadeh L.A. (1978). Fuzzy Sets as a Basis for a Theory of Possibility // Fuzzy Sets and Systems.
- Анурин В.Ф. (2016). Маркетинговое исследование потребительского рынка. СПб.: Питер.



- Государственная программа «Стратегическая Дорожная Карта» (06.12.2016)
- Ефимова С.А. (2018). Маркетинговое планирование. М.: Альфа –Пресс.
- Кузнецова Г.В. (2019). Конъюнктура мировых товарных рынков. М.Юрист.
- Лысюк В.И. (2014). Организация товарного рынка. LAP Lambert.
- Ревенко Л.С., Крюков А.Е. (2010). Конъюнктурные исследования товарного рынка. М.: МГИМО.
- Рой Л.В., Третьяк В.П. (2018). Анализ отраслевых рынков. М.: ИНФРА-М.
- Романенко С.Н. (2017). Маркетинг. М.: Дашков и К.
- Строканский О.М. (2016). Теория развития рынка. М.: Академия.
- Тарапуха Ю.В. (2019). Экономика отраслевых рынков. М.:ИНФРА-М.
- Хохлов А.В. (2011). Товарный рынок. СПб.: Питер.



Public Investments to Development of Irrigation System and Main Enlightenment Issues of Climate Change Adaptation in Agriculture of Azerbaijan

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Abstract

Climate change mitigation and adaptation strategy is one of the seventh goals of the Sustainable Development Goals committed by more than 190 leaders in 2015 year. Adaptation strategy in agriculture involves different options and actions by producers and public agencies seeking to maximize public good aspects of adaptation. Public investment to irrigation system of Azerbaijan is vital for country where only 1/3 of all agricultural lands are irrigated and arable. Besides this the water resources in Azerbaijan are very limited and country annually using the 70% of all renewable natural water resources. Annual water shortage in Azerbaijan varies between 4.5-5 billion m³. The public financial capital should be invested to irrigation system of country as a part of national adaptation program. Public investments to climate change adaptation strategies should aim at maintaining, or even increasing, food production in key exporting developed and developing regions, or in regions key to regional food security.

Key words: Climate change, Public investment, Adaptation, Agriculture, Irrigation

Introduction

Agriculture is not only a fundamental human activity at risk from climate change, it is a major driver of environmental and climate change itself. It has the largest human impact on land and water resources. About 1.4 billion ha of arable land (10 percent of total ice-free land) are used for crop cultivation and an additional 2.5 billion ha are used for pasture. Roughly four billion ha are forested land, five percent of which is used for plantation forestry. Climate change vulnerability and adaptation options in agriculture involve different agents and scales and include actions by producers, input and food industries and governmental agencies, with individual acting for private benefit, and public agencies seeking to maximize public good aspects of adaptation. Guided by international experience adaptation options for agricultural sector include the following aspects:

1. Technological development
2. Technological adaptation
3. State programs and insurance

1. Technological development

Technological development includes the following:

- 1.1 Public and private investment in land management, in seasonal forecasting, and early warning system
- 1.2 Evaluation of restoration and development of irrigation system
- 1.3 Public and private investment in water management technologies

2. Technological adaptation

Technological adaptation includes the following strategies:

- 2.1 Diversification of crop types and varieties including crop substitution
- 2.2 Changing location of livestock and crop production associated with climate change



3. State programs and insurance in agriculture

State programs and insurance should obtain the following issues:

3.1 Assessment of agricultural insurance stability

3.2 Analyzing of compensation policy for extreme events and disasters in agriculture

Problem Statement

The territory of Azerbaijan Republic is situated on the east part of South Caucasus and the west part of Caspian Sea, between 38°24' and 41°54' north latitudes, 44°46' and 50°56' longitudes. The area of Azerbaijan Republic's territory consists of 86,6 thousand km², the 5,2 km² of it belongs to Nakhchivan Autonomous Republic, which is the part of Azerbaijan Republic. Only 54.9% (52.4% Ministry of Agricultural source) of the country's territory is suitable for agricultural production. 2.9 million hectares of these territories are perennial plants (gardens, vineyards, furrows, tea plantations) and grasslands. Arable lands are about 1.8 million hectares. But only 1/3 of all agricultural lands are irrigated (1.4 million. hectares) and 90-95% of all agrarian production derived from these lands.

The water resources of Azerbaijan are very limited. The over ground water reserves constitute 32.2 billion m³ which decreases till the 22.6 billion m³ in a dry season. Underground water reserves constitute 5.2 billion m³. Yearly from all reserves expends 10-14 billion m³ water for country needs. 60-70% of whole expended water takes agriculture, 20-25% - industry, 10-15% - households and urban consumption. The water resources of Azerbaijan consist from 8359 rivers, 450 lakes and 135 artificial reservoirs. Despite of the large number rivers and lakes the water capacities of them are limited. 8359 rivers flow through the territory of the Republic of Azerbaijan, the length two of them is more than 500 km, 22 rivers has length – 101-500 km, 40 rivers- 51-100 km, 107 rivers- 26-50 km, 8188 rivers has length less than 25 km. The two biggest rivers of Azerbaijan Kura and Araz originate outside the territory of country and the water resources used jointly with neighbor countries. Common area of 450 lakes observed at the territory of Azerbaijan Republic is 395 km². An area of ten lakes more than 10 km² but others much less. By the origin they divided on seven types: glacier lakes, flood plain lakes, storage dam lakes, lagoon lakes, karsts lakes, landslide lakes and connate lakes. The largest lake of republic is Sarisu lake in Kur-Araz lowland (the area of water surface is 65,7 km², the volume is 59,1 mln.m³). Tufangol (its area is 0,01 km², volume 0,11 mln.m³) is on the basin of Demiraparan and on the height of 3277 m. It is highest mountain lake in republic. Water from some lakes are used as source of potable water. Annual water shortage in country varies between 4.5-5 billion m³.

Method

Water provides coherence to climate change adaptation and mitigation, integrating energy, water, food production and agriculture, and ecosystems and the environment. Typical investments in this category include water infrastructure for the purposes of water collection, storage, treatment or distribution, or for flood protection or drought resilience. Investment to water infrastructure divides on two categories:

- ✓ Engineered water infrastructure or water-use systems that collect, treat and distribute water, or that protect against floods or drought
- ✓ Nature-based water resources management systems that are managed to collect, store, treat, or distribute water or to buffer floods or drought.

Engineered water infrastructure investment projects include:

- ✓ Installation or upgrade of water irrigation system, such as high-efficiency drip, flood, and pivot irrigation systems
- ✓ Construction or upgrade of flood defense infrastructure
- ✓ Installation or upgrade of water capture and storage infrastructure
- ✓ Installation or upgrade of flood monitoring and warning system



Investment in nature-based water resources management systems include:

- ✓ Creation of safe delta flood zones as natural habitat for the river to expand into
- ✓ Metering / monitoring systems to detect and warn against flow, snowpack, or groundwater systems for water management and drought warning
- ✓ Planting/removing vegetation explicitly to modify water temperatures, evaporation rates, runoff patterns
- ✓ Use of pumps to transfer waters to / from natural aquifers
- ✓ Creation artificial water retention ponds

Investment in engineered water infrastructure and in nature-based water resources management systems in Azerbaijan broadly implemented by governmental structures. The main public structure which governs and serves the water frame of the country is an Azerbaijan Amelioration and Water Management OSJ. This organization close to coloborate with “Azenrji” OSJ, the main electric producer of country. Azenerji has in possession 19 hydroelectric stations (12 large and 7 small) with total capacity 1164.4 Mvt (18.5% all produced electric energy in country). All artificial reservoirs which builds for needs of hydroelectric stations has a dual purpose and used for irrigation and amelioration too.

Anaylsis of Engineered water infrastructure of Azerbaijan Republic Artificial Reservoirs

Nowadays for needs energetic, agriculture and population in Azerbaijan uses 135 reservoirs. The volume 8 of them is more than 100 mln.m³; 12- 10-100 mln.m³; 42- 1-10 mln.m³ and 73 reservoirs has volume less than 1 mln.m³. Reservoirs, built on Kur, Araz, Samur and Terterchay rivers (Shamkir, Mingechevir, Yenikend, Varvara, Bahramtapa, and Ceyranbatan) has complex water management systems and used for energetic, irrigation, source of potable water and other purposes.

The project cost of constructing 1 m³ of useful volume of artificial reservoirs is shown below:

For reservoirs with volume less than 1 mln. m³ - 1m³/ 11.8\$- 14.7\$

For reservoirs with volume more than 1 mln. m³ - 1m³/ 4.7\$- 6\$

Irrigation Canals

During the XX century a large irrigation canal system had been built in Azerbaijan. Total length of all irrigation canals in Azerbaijan is 51 755 km. 2184 km from them is the main line, 8014 km is inter-farms and 41 557 km inside-farms canals. Irrigation system with existing natural water resources and reservoirs embraces whole Kur-Araz lowland (21 631 km²) which is the main agricultural territories of country. The average annual rainfall at this lowland is 200-450 mm and for agricultural irrigation broadly using water from canals. Overall length of 15 main irrigation canals which had been built in Kur-Araz lowland is 1001 km with total water stream passing ability 718 m³/sec. This system provides by water 761 thousand hectares of arable lands which is 52% of all irrigated lands.

Most of these canals needs in through reconstruction because water loss from seepage varies from 30% till the 59% depending on how canal had been built (concrete canal or digged canal). Average water loss from running meter of canal is equal to 5-8m³ per day. Global warming leads to increasing of water consumption by agricultural crops. The main advantages using of canal irrigation is energy saving. Disadvantages are water loss and future soil salinity.

The project cost of constructing 1 line m of concrete canal is shown below:

1 line m of main canal water with stream passing ability 10 m³/sec- varies between \$588 - \$2941

mark of concrete: B15

armature: d=12

facilities for every 200 m

1 line m of main canal water with stream passing ability 1 m³/sec- varies between \$117.6- \$588

1 line m of iron pipe for water transferring with diameter 720 mm - \$264



The price include all engineering structures which installing during the canal construction

Hydro Schemes

Rivers flow management in Azerbaijan carried via hydro schemes. Hydro schemes are subdivided by water receiving capacity indicators as shown below:

1. Water receiving capacity $>50 \text{ m}^3/\text{sec}$; 4- hydroschemes
2. Water receiving capacity $10\text{-}50 \text{ m}^3/\text{sec}$; 4- hydroschemes
3. Water receiving capacity $<10 \text{ m}^3/\text{sec}$; 8- hydroschemes

All collected from rivers water through the hydro schemes is passing to the canals and using for irrigation, energetic or for other purposes.

Collectors Drainage System

Complex melioration measures had been implemented in 43% of all irrigated lands (609 thousand hectares). 288 000 hectares are provided by surface, 308 000 hectares – by subsurface and 13 000 hectares are ensured by vertical drainage network system. 9569 km of open drainage networks, 9326 km of closed drainage networks, 6157 km of water collectors, 4768 km of main line collectors (total 29640 km) had been built and transferred into operation. Water from drainage systems via the three main line collectors (Main Mil-Mugan, Main Shirvan and Mugan Salyan) flows into the Caspian Sea.

The cost of construction of 1line m of closed drainage with collector varies between 29.4\$ - 41.2\$

The price includes all engineering facilities

Pumps Stations

The pump stations for transferring water from natural aquifers and reservoirs had built up on the main rivers of Azerbaijan Kur and Araz and besides it on the some artificial reservoirs. The main purpose of these stations is to transferring water for irrigation and ensures operation of water supply stations. Also some of these pump stations are using for transferring water from collector drainage systems. The table bellow illustrates common indicators of existing pump stations in Azerbaijan Republic.

Table 1. Indicators of existing pump stations in Azerbaijan Republic

№	Indicators of pump stations	Unit	Total	For irrigation		For melioration	
				Electric	Fuel	Electric	Fuel
1	Number of pumps	Pieces	931	705	170	56	-
2	Number of aggregates	Pieces	1889	1469	250	170	-
3	Accumulated power	Mvt	596,9	533,9	39,2	23,8	-
4	Efficiency	m ³ /sec	1282,2	1029,9	137,5	114,8	-

Based on Data Azerbaijan Amelioration and Water Management OSJ

The cost of the construction project of 1 pump with electric aggregate varies from 65 955 to 466 911 US dollars depending on the technical characteristics. The price includes the construction of special facilities. The cost of building a fuel pump with the unit is cheaper by 17-20%, but the efficiency is lower than an electric pump.

Pivot irrigation equipments

For the last five years the big farms in Azerbaijan broadly implemented pivot irrigation equipments. These equipments classified as:



- Center pivots
- Linear pivots

At present the pivot irrigation equipment are using in five districts of Azerbaijan, Agsu, Kurdamir, Khachmaz, Hacıqabul and Bilasuvar. The pivot irrigation method has different specifications but in compare with ordinary method of surface irrigation by canals or by artesian pumps, the result and efficiency are quite different. The table below illustrates efficiency of implementation pivot irrigation in wheat production.

Table 2. Efficiency of pivot irrigation in wheat production

N	Indicators	Pivot irrigation	Surface irrigation
1	Automation of irrigation process	100%	less than 100%
2	Irrigation norm per hectare during the vegetation period (3 times)	1600m ³ /he	4500m ³ /he
3	Intensive crop rotation during the year and additional production	2-3 times	1time
4	Influence of irrigation to soil structure	successful implementation in inclined areas	water erosion in an inclined areas
5	Influence of irrigation to soil salinity by rising of ground water level	no influences	Influences
6	Fertilization and chemical treatment	injected by special dispenser during the irrigation	spreaded by special additional aggregates
7	Yield from hectares	5-6 ton	2-3 ton

There is one main disadvantage for farmers in using pivot irrigation equipments. The equipments and installation process is quite expensive and only sustainable farmers could purchase it. Depending on the system and field conditions, installing a center pivot system costs is \$1765 USD per hectare. The price includes all engineering facilities.

Sub-Artesian Wells

On 01.06.2018 date the total number of sub artisan wells in Azerbaijan is more than 14 000 items. The total number of sub artesian wells which is used for irrigation constitutes 8587 items. The irrigation efficiency is 10-30 hectares per day with total water supply 1700-8600 m³. But disadvantage of this method of irrigation is a high cost of water supply (0.03 USD/m³) and future salinity problem of soil. At present 300 sub artesian wells are under the construction and soon would be given into the operation.

The cost of construction of one sub artesian wells with pump aggregate could be varies between 29 500\$ - 59 900\$ (diameter 150mm-375mm; depth 60m-180m). The price includes all engineering facilities.

Results, Conclusions and Recommendations

Public investments to development of irrigation system as main climate change adaptation option in Azerbaijan Republic includes different challenges and issues. The main problem of agriculture is a water shortage. Azerbaijan economy consumes during the year 70% of all natural water reserves while the world standards constitute only 40%. The biggest problem of shortage is the water loss during its transfer by the irrigation canals. Up to 59 % of transferred water losses during its motion through canals. From this perspective the major part of public investment must be allocated on restoration of irrigation canals, water-use efficiency related techniques



and increasing the number of artificial reservoirs. The measures must be the part of National Climate Change Adaptation Program and includes the following elements:

- ✓ reduce the volume of water losses
- ✓ broadly implementation of contemporary system of watering (pivot, drip and etc.)
- ✓ creation of safe delta flood zones as natural habitat for the river to expand into
- ✓ installation or upgrade of water capture and storage infrastructure
- ✓ continue to construction of artificial water retention ponds
- ✓ construction of water treatment plants

The second main target of adaptation plan regarding to irrigation system should include special measures against the saline and alkali soils. State should invest to such kind of measures and improve the quality of lands suitable for agriculture.

References

- Ahmadov, F., Bagirova, U. M., & Akbulaev, N. (2015). Döviz Piyasalarındaki Stratejik Uygulamalar: Azərbaycan Örneği/Strategic Applications in Foreign Exchange Markets: The Case of Azerbaijan. Turan: Stratejik Arastirmalar Merkezi, 7(28), 78.
- Ahmadov, Fariz, Turan Ahmedov, and Yusif Aliyev. "Maliyyə Savadlılığı: Konseptual və Tarixi İnkişaf." Turan: Stratejik Arastirmalar Merkezi 9.34 (2017): 278.
- Adoptation to climate changes, European Commission, https://ec.europa.eu/clima/policies/adaptation_en
- Anita Wreford, Domenic Moran and Neil Adger, OECD 2010, Climate Change and Agriculture, impact, adaptation and mitigation
- Azerbaijan Amelioration and Water Management OSJ, <http://mst.gov.az/>
- Climate Change Adaptation Resource Center, <https://www.epa.gov/arc-x/water-utility-adaptation-strategies-climate-change>
- Birgili, Erhan, and Nurhodja Akbulaev. "Orta Asya Ülkelerinde Mikrofinans Uygulamaları." (2014).
- Central Pivot from Valley Irrigation, <http://www.valleyirrigation.com/equipment/center-pivots>
- FAO Adaptation to climate change in agriculture, forestry and fishers. Perspective, framework and priorities (2007) pages 23.
- Ministry of the Ecology and Natural Resources of Azerbaijan Republic, <http://eco.gov.az/en>
- Ministry of Agriculture of the Republic of Azerbaijan, <http://www.agro.gov.az/>
- Nicolas Ahouissoussi, James E. Neumann, and Jitendra P. Srivastava, Editors. Building Resilience to Climate Change in South Caucasus Agriculture, World Bank (2014), page 50
- State Agency of Land Management of the Republic of Azerbaijan, www.stateproperty.gov.az/land/index.php/az/



The Role of the School Principal in an Angolan School Organization

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Abstract

This paper results of an empirical study carried out in 2015, in a private school in Benguela. The purpose and objectives of the research were to analyze which competencies teachers considered essential to the position of a school principal, to identify essential competencies and inherent aspects to exercise this position and the development of knowledge about the competency profile of a school principal. The research methodology was predominantly qualitative, a questionnaire survey was applied to 42 teachers, and the simple statistical analysis was the data treatment technique. The main results showed that for the teachers who participated in the study: i) the school principal should be a teacher with School Management and Administration training; ii) the appointment of a school principal should result from peer election; iii) the ability to manage human resources, leadership, communication, teamwork and management knowledge are essential competencies of a school principal.

Keywords: School Organization, Competencies, School Principal

Introduction

As a result of globalization, school institutions have undergone intense transformations, resulting in the restructuring of educational processes and reassessment of traditional management models. For that matter, the increasing need of adaptability due to the constant changes proposed by organizations and the labour market are factors of survival in the educational context, and it is crucial that school principals identify themselves and act as transforming agents.

In this context, it is necessary to understand the influence of the attitudes of the school principal and the impact of personal, technical and emotional skills on the employees, since a good working environment tends to



generate motivation and to reflect positively in the productivity levels. As a matter of fact, it is up to the school principal to know human motivations and management tools, which can support him/her in making decisions about the appropriate use and valorization of the talents which integrate the work teams. In this line of thought, Bergamini (1994, p.88) points out:

"The main tool of people management is the continuous learning that directs the leader to organizational learning, that is, it is necessary for him to develop the capacity to promote education / development with high quality service and to open up to the transmission of information, in order to allow the participation of employees in taking decisions, acting as educator, negotiator, encourager and promoter on behalf of their performance."

In fact, school principals directly interfere with school performance. As leaders, they are culture shapers and leverages who maximize the performance of employees and the organization in general. As such, it is their responsibility to plan, organize, coordinate, evaluate and reformulate the activities they provide to employees and the conditions that contribute to their professional fulfillment and personal satisfaction.

Therefore, the choice of the present theme is justified by the fact that it intends to know the impact of the competencies of a principal on the performance of the employees, taking into account the function of motivating them, in a perspective of promoting the educational success of the students.

In this context, the research problem lies in the analysis and understanding of the role of a principal in the organization of a school in Angola, assuming the following statement when formulated as a framing question:

What skills do teachers consider essential to the position of school principal?

With the intention of producing knowledge on this subject in the Angolan educational context, the following research objectives were defined, namely:

- 1) *To identify essential competencies to perform the job of school principal, according to the perception of teachers;*
- 2) *To understand aspects inherent to the performance of the job of school principal, in the perspective of teachers;*
- 3) *To develop knowledge about the skills profile of a school principal, with reference to teacher perception.*

School as an organisation is the object of study by various authors, namely Nóvoa (1992), Hargreaves (1994), Lima (2001), Fullan (2003), Canário (2005), Hargreaves & Fink (2005), among others. In the perspective of Lima (2001), school is understood as a "complex and multifaceted educational organization" (p.10). The idea of organization refers to an ordered and structured way of planning an action and having conditions to achieve it. Thus, school as an educational organization has principles and procedures that are related to the action of coordinating all those involved in the educational process, in order to achieve the objectives and preferences that it proposes itself (Lima, 2001).

Lima (2001), supported by Ellström (1983), relates four models of organization: the political model, the social system model, the rational / bureaucratic model and the anarchic model. In the political model, the diversity of ideological interests and objectives not shared by all stand out. The author highlights in this model "the importance of power, of struggle and conflict, and a type of rationality - political rationality" (Lima, 2001, p.17). Because of its characteristics, and because the public school is subordinated to the State, this form of organization lacks applicability conditions, although in historical moments the identifying elements of this model are important for the study of the school.



The social system model presents organizational processes more as spontaneous phenomena than the intention of organizational action. For the author, this model privileges "consensus, adaptation to the environment, stability" (Lima, 2001, p.19). Like the political model, this is also not dominant in studies about school organization.

The rational/bureaucratic model places emphasis on the consensus and clarity of organizational objectives and admits the existence of transparent processes and technologies. Action comes from well-defined decisions, meaning that choice is a rational analysis action. In this model, decision must be intentional and directed to the purposes of the proposals, having as support the technical and knowledge means (Lima, 2001). School as an organization becomes bureaucratic due to the rigidity of laws and regulations in the hierarchy, in the organization, in the form, in the specialization, and other elements that are common to large organizations considered bureaucratic. Lima (2001) highlights the disconnection between what the school presents as a model of organization and what actually occurs in its routine. In a bureaucratic model, the school presents well-defined roles, rigidity, hierarchy of ranks, and expertise.

In a universe, which the author calls "unofficial", "organizational conflicts, problematic definition of objectives, difficulties imposed by ambiguous technology and informal structures" appear (Lima, 2001, p. 28), thus emerging the anarchic model of organization. The anarchic model contrasts with the rational model because it presents unclear, conflicting objectives and dubious and uncertain technologies. For Lima (2001), the anarchic model presents three fundamental indicators: i) inconsistency and insufficient definition of the objectives and of the intentionality of the organization; ii) lack of clarity of the organization's members regarding processes and technologies; iii) levels of participation of its members varying from one time to another.

In the Angolan educational context, the school principal is the main responsible for articulating the pedagogical management and ensuring the educational success of the students. As a leader, the school principal must articulate his/her action with the intermediate leaderships and promote collaboration, in a perspective of sharing authority and strengthening its legitimacy. In fact, the principal's performance and pedagogical coordination condition the implementation of school organization and management practices (Libâneo, 2001). Therefore, the competencies of the school principal are diverse and can be grouped according to two types: administrative or pedagogical. Nevertheless, due to the nature of the position, the school principal has competencies associated to both types, since he/she is responsible for ensuring the functioning of the school in these two fields of action.

At school, the principal plays the role of general manager of the institution, in particular with administrative functions (human, physical and financial resources, supervision of obligations, relations with the community), and pedagogical coordinators are responsible for pedagogical functions. According to Libâneo (2001), the principal coordinates, organizes and manages all activities at the school, assisted by a body of experts and technicians/administratives, taking into account the legal norms emanating from the Ministry of Education and the decisions taken by the school and the community together. As such, the operationalization of any collective decision-making requires adequate coordination and administration. In this context, Prado & Prado (2001) argue that the performance of the principal implies involvement with the community and the participation of all those involved in school work. Thus, democratic management requires the principal to have intrinsic and hierarchically organized competencies, namely of a technical, political and pedagogical nature.

Method

This study focuses on the study of a specific reality (essential competencies necessary for the performance of the position of school principal) and in a particular context (a private school of the lower and upper secondary education in the Municipality of Benguela), as such, we chose the qualitative research paradigm. Regarding qualitative research, Stake (1995) states that it directs the research aspects to cases or phenomena where the contextual conditions are unknown or that, presumably, may not be controlled.



Therefore, the present study favors a primarily qualitative approach, since it assumes a predominantly descriptive rather than evaluative feature (Freixo, 2011). Effectively, it is a study that refers to teachers' perceptions of the competencies that they consider necessary for the performance as principal of a school organization.

Although the main data collection technique was the survey by questionnaire (associated with the quantitative paradigm), the study adopts a qualitative nature, since it essentially privileges the understanding of behaviors from the perspectives of the research subjects (Bogdan & Biklen, 1994), being one of the main objectives of the researcher to understand, in detail, what the teachers inserted in the context think about the object of study.

The empirical study was carried out during the school year of 2015, in a private school of the lower and upper Secondary School of Benguela, whose teaching staff consisted of sixty-two (62) teachers, of which twenty-one (21) were female and forty-one (41) male.

The selection of the school where the study was developed was not random, and the weighting factors were various, with emphasis on:

- i) accessibility issues since the proximity to our area of residence allowed easier and more frequent access;
- ii) personal awareness of the school in question, as well as of the majority of the teachers, namely the management body, were aspects that allowed easier access to certain data;
- iii) availability and interest revealed by the school's management, with whom we initially established informal contact and later a formal one.

Based on the proposed research objectives and the nature of the object of study, the data collection techniques were defined, adopting the survey by questionnaire as the main data collection technique and document analysis as a complementary means. The survey by questionnaire was administered to a group of forty-two (42) teachers who were teaching at the above-mentioned school who were available and interested in participating in the study.

The questionnaire survey was organized into two sections, respectively: a) Personal and Professional Characterization of the Respondent; b) A Principal's Competencies Profile. Its application intended to collect information for the following objectives:

- a) characterize the respondent personally and professionally;
- b) to find out essential competencies to perform the job of school principal, according to the perception of the responding teachers;
- c) understand aspects inherent to the performance of the job of school principal, from the perspective of the responding teachers.

When constructing the questionnaire survey, we sought to draft the questions in a clear, concise and unambiguous manner in order to avoid ambiguity in their interpretation. Since this questionnaire was adapted from one applied in Portugal by Pires (2011), internally validated by experts in the field, it was necessary to validate it externally in the Angolan educational context. Therefore, six teachers, who were teaching at another school, were asked to make a critical appraisal of the questionnaire as to the appropriateness, relevance, clarity and rigor of the questions posed. This way, the external validation process of the questionnaire was ensured in a different context from the one in which it was originally applied. In short, "its rigor, clarity and adequacy to the research objectives and the target population" were verified (Pardal & Correia, 1995 referred to by Abelha, 2005, p. 88).



Since the teachers who were asked to validate externally have not suggested any changes or improvements to the content (just correcting the sequence of questions), they were then administered to the group of forty-two (42) teachers who agreed to collaborate in this study.

The main purpose of document analysis was to complement and enrich data obtained from the questionnaire survey, while also allowing useful information to be collected for the object of study (Morgado, 2013). Therefore, in the present study the structuring documents of the participating school were consulted and analyzed, namely the Educational Project and the Rules of Procedure, allowing to obtain data on the characterization of the socioeconomic environment in which it is inserted, its pedagogical and administrative organization, the physical structure and physical and human resources.

Simple statistical analysis was the technique of processing the data collected through the questionnaire survey, allowing its interpretation and attribution of meaning in order to find answers to the research problem (Bogdan & Biklen, 1994).

Findings

The school where the empirical study took place

The school activities at the school where the empirical study took place began on March 7 of the school year 2011, including only the Lower Secondary School, 28 teachers and 60 students enrolled and divided in the morning and evening shifts.

The publication of Joint Executive Decree No. 178/15, of April 10, determines the creation of the current private school of the Lower and Upper Secondary Education, located in the Municipality of Benguela, with 8 classrooms, 24 classes, working in 3 shifts (morning, afternoon, evening), with capacity for 36 students per class, that is, a total of 864 students.

The majority of the local resident population is characterized by war-displaced persons, due to the armed conflict that occurred in the country, that is, people from different parts of the country. Although located in a coastal area of Benguela, this is a poor neighborhood, it has no electricity or clean drinking water accessible to the entire population, which is mostly illiterate and survives from fishing and informal economic activity. In terms of infrastructures, we can highlight 2 schools in the neighborhood, a primary school and a lower and upper secondary education school, a health post for basic services, with poor conditions, and small structures that help the community to subsist.

This school is a co-financed private institution that, in fidelity to the guidance of the Catholic Church and the Ministry of Education, Science and Technology, educates according to the principles of the Gospel and the pedagogy of the Catholic Church.

In the year of the empirical study, the institution operated on a three-period basis: the morning (from 7:10 am to 12:45 pm), the afternoon (from 1:00 pm to 5:45 pm) and the evening (from 18:10 to 23:15).

The teaching staff of the institution consisted of 62 teachers, of which 21 were female. Within the non-teaching staff, the school had an administrative staff of 13 employees, 9 of whom were female. In the school year of 2015, 543 students were enrolled, distributed by class and gender, according to the data in Table 1.

Table 1. Students per classroom and gender

Variables	Registered students		Total
	Female	Male	



7th Grade	31	35	66
8th Grade	17	21	38
9th Grade	35	28	63
10th Grade	78	102	180
11th Grade	46	67	113
12th Grade	38	45	83
Total	245	298	543

The school had an organization chart that served as an instrument for the implementation of the activities and where the functions and roles of each body and each member were stated. Being an institution of a private nature and co-financed, it was not covered by the State Budget, so it survived with the monthly contributions of parents. The hiring of staff, in some situations, was promoted through a tender, by the Provincial Direction of Education and, in others, by the selection of curriculum vitae, with reference to the required competencies, and the staff was placed according to their expertise by the municipal government or the governing board of the institution.

Personal and professional characterization of the participating teachers

The analysis of the results referring to the first section of the questionnaire allows us to verify an equitable gender distribution of the teachers answering the questionnaire, with 21 teachers from each gender. Most teachers (28) stated being between 36 and 50 years old, and the remaining (14) were between 26 and 35 years old. Most of the teachers (30) were in a stable employment situation, that is, with a permanent working relationship, and 12 were non-permanent employees of the institution. Degree and baccalaureate were the most common academic qualifications, distributed according to Table 2.

Table 2. Academic qualifications

Variables	Frequency
PHD	--
Master	--
Postgraduation	2
Graduation	21
Bachelors degree	17
High School	2

Most of the respondent teachers (40) taught students of the Upper Secondary School and the number of years of teaching service (accounted until December 31, 2015) is systematised in Table 3.

Table 3. Number of years of teaching service

Variables	Frequency
Up to 4 years	24
From 5 to 10 years	12
From 11 to 20 years	4
Over 20 years	2

Key competences for the performance of school principal (first objective)

Analyzing the relevance of competences to be privileged by a principal in his / her position, 33 of the respondent teachers considered "Ability to work in a team" as "very important", 31 teachers considered "Communication skills", 26 teachers considered "Ability to manage human resources" and "Intellectual Capacity" and 25



teachers“ Leadership Capacity ”. It is important to highlight that the “Knowledge at management level” was considered “Very important” by 16 of the respondent teachers, but “Important” by 21 of them.

These results allow us to infer that the responding teachers do not privilege, in the performance of the job of principal, competencies inherent only to management and administration functions. This situation leads to a perception of the principal as someone who, in addition to issues related to management/administration, privileges the pedagogical functions and of mobilizing school actors in search of articulation with the social and cultural reality that surrounds them (Nogueira, 2013). From another perspective, these results indicate that the responding teachers value the ability of the leader to adjust the leadership style to the context and needs of employees (teamwork, communication), thereby ensuring the efficiency and effectiveness of the school organization (Hargreaves 1994; Hargreaves & Fink 2005; Fullan 2003).

Aspects inherent to the performance of school principal (second objective)

Knowledge of the curriculum of subjects and courses was considered by 30 of the responding teachers to be a “Very important” aspect to the role of principal. In turn, the awareness associated with projects developed in the school environment and the Activities Plan were prioritized over those related to guiding documents, namely the Rules of Procedure and the Educational Project, despite their relevance.

The pedagogical management of learning, the building of consensus and the promotion of learning success were the three functions that the responding teachers highlighted as assuming a “Very important” level of relevance in the role of a school principal, respectively 30, 27 and 25 teachers. In addition, supervising teaching performance, supervising Ministry guidelines and enforcing powers provided by law were the three next functions immediately highlighted by the responding teachers. In turn, the management of material resources was the function where the respondent teachers revealed a greater dispersion of relevance in the performance of the school principal’s role.

Motivating teachers, valuing teaching work and managing and negotiating conflicts were the three interpersonal skills that the responding teachers highlighted as those that should be privileged by the principal in his / her role, with “Very important” relevance levels, marked by 30, 26 and 21 teachers, respectively.

Given these results we infer that the perception of the responding teachers may point to an emergence of the principal's perspective as an organizational architect (Murphy, 1990), that is, one that acts on people, structures and processes, facilitating the educational work with the students (Gaspar & Diogo, 2014). On the other hand, supervising Ministry guidelines and enforcing powers provided by law may indicate a school principal perspective that bridges the regulatory intentions, the exercise of control, the needs of professional development and the expectations of the school community, in terms of the quality of service provided by the school organization (Gaspar & Diogo, 2014).

It is also important to note that the actions of directing and coordinating presuppose the mobilization of people's collective effort to achieve established goals and objectives (Libiliar, 2001). In this sense, it is assumed that the school principal brings together all elements of the organizational process (planning, organisation, evaluation), involving mobilization, motivation, communication and coordination activities, in order to ensure the functioning of the school, enhancing the teaching action and the success of student learning.

Developing knowledge about a school principal’s competences profile (third objective)

Respondent teachers pointed out that for the role of principal teamwork, communication, human resources management, intellectual ability and leadership skills were relevant. In turn, the interpersonal skills privileged by



the responding teachers for the role of principal were in the field of teacher motivation, valuing teaching work and conflict management and negotiation.

On the other hand, the functions to be privileged in the role of principal, highlighted by the responding teachers, were the pedagogical management of learning, consensus building and the promotion of learning success, indicating agreement with the current legal norms, namely the Law 17/2016, of October 7, the Teacher Training School Regulations of December 5, 2014, and the “Proposal for a Unified Regulation for Teacher Training and Primary Teachers in the Province of Benguela”.

The current legal norms are exhaustive in the list of competencies attributed to the performance of the role of principal, which privilege aspects of management and administration of resources over leadership competencies. However, the responding teachers attributed greater relevance to teachers’ motivation, communication and leadership skills, which are not clearly stated in the legal norms, referring to a perspective of managing / administrative / executing school principal, in line with the appointment by higher bodies (Minister of Education, on proposal of the corresponding Provincial Governor). Thus, due to exhaustive guidelines embodied in the legal regulations, we question the way the Ministry of Education views and values the role of the school principal, i.e., to give more importance to the role of executor or the role of leader?

Ultimately, we point out that the results of this study indicate that the role of the principal tends to assume greater relevance in the perspective of the responding teachers. It should be noted that the data refer to the context of a private and co-financed school, a fact that may allow some autonomy from some guidelines of the legal norms.

Results, Conclusions and Recommendations

The obtained results allow us to conclude that, for the majority of the responding teachers, the role of school principal should be performed by a teacher, with specific training in school management and administration areas, with more than 20 years of service, and elected by peers or the school community. Except for the election mode, the remaining assumptions regarding the personal and professional profile of the school principal are laid down in current legal regulations and attachments to the Angolan education system.

Thus, we ask from a reflective recommendation perspective:

- i) To what extent, in the context of Angolan public education, the appointment by the Ministry of Education (upon the proposal of the Provincial Governor) does not give the role of school principal a political dimension, being professional merit, appreciation and the recognition of specific training pushed into the background?
- ii) To what extent, in the context of Angolan private education, a possible election of the school principal by peers, by the school community or the employer may conceal some kind of favouritism, rather than professional merit, appreciation and recognition of specific training from other candidates?
- iii) To what extent, in the context of Angolan private education, does the hiring of teachers via curriculum vitae analysis ensure a selection of candidates based on criteria of professional merit, appreciation and recognition of specific training, when the recruitment may not be in the public domain?

The teachers participating in the study emphasized that for the role of principal, teamwork, communication, human resources management, intellectual capacity and leadership skills were relevant. As interpersonal competences were highlighted the teaching motivation, the valorization of the teaching work and conflicts management and negotiation. Given the nature of these competencies, we can infer that the responding teachers attributed relevance to the position of principal as a leader, when it is the role of manager/administrator/executor that is most evident in the legal rules.



Given the legal regulations, we question from a perspective of reflective recommendation:

- i) Can the detailed specification of the school principal's competencies and duties direct his/her role to that of an administrator/manager/executor, limiting his or her role as leader?
- ii) To what extent do the employers (patrons) of a private school and the Ministry of Education condition the principal in the role of leader?

Presumably, the answer to each of these questions could be the object of studies to be developed with teachers and principals of public and private schools, in order to broaden the understanding of the role of the school principal and the inherent competences in the Angolan educational context.

The context and nature of this investigation are specific and, therefore, the results obtained can not be generalized. Thus, focusing on the object of study of this research, we recommend the accomplishment of possible studies, whose contribution may deepen the theme in a perspective of complementarity, namely:

- i) of a similar nature (private school) and different Angolan educational contexts, other municipalities and/or provinces;
- ii) of a similar and comparative nature (public school and private school) in the same municipality and school and the same level of education;
- iii) with the application of surveys by interview to the directors, to listen to their perception about the competencies inherent to their role;
- iv) focused on the students' perspective on the role of principal and the competencies that are inherent;
- v) on how principals perceive the training needs for their role;
- vi) on gender issues in the leadership of Angolan schools.

References

- Abelha, M. (2005). *Cultura Docente ao nível do Departamento Curricular das Ciências: um estudo de caso*. Aveiro: Universidade de Aveiro. (master's dissertation).
- Bergamini, C.W. (1994). *Liderança: Administração do sentido*. São Paulo: Atlas.
- Bogdan, R. & Biklen, S. (1994). *Investigação Qualitativa em Educação. Uma introdução à teoria e aos métodos*. Porto: Porto Editora.
- Canário, R. (2005). *O que é a Escola? Um "olhar" sociológico*. Porto: Porto Editora.
- Ellström, P.E. (1983). Four faces of educational organizations. *Higher Education*, 12(2), 231-241.
- Freixo, M. (2011). *Metodologia Científica: Fundamentos Métodos e Técnicas*. Lisboa: Instituto Piaget.
- Fullan, M. (2003). *Leading in a Culture of Change*. San Francisco: Jossey Bass.
- Gaspar, P. & Diogo, F. (2014). *Sociologia da Educação e Administração Escolar*. Luanda: Plural Editores.
- Hargreaves, A. (1994). *Changing Teachers, Changing Times: Teachers' Work and Culture in the Postmodern Age*. London: Continuum.
- Hargreaves, A., & Fink, D. (2005). *Sustainable Leadership*. San Francisco: Jossey Bass.
- Libâneo, J. (2001). *Organização e Gestão Da Escola, Teoria e Prática*. Goiânia: Editora Alternativa.
- Lima, L.C. (2001). *A escola como organização educativa: uma abordagem sociológica*. São Paulo: Cortez.
- Morgado, J. C. (2013). O estudo de caso na investigação em Educação. Santo Tirso: De Facto Editores.
- Murphy, J. (1990). Principal Instructional Leadership. In Thurston, P. & Lotto, L. (Eds.). *Advances in Educational Administration* (pp. 163-200). Greenwich: JAI Press.
- Nóvoa, A. (1992). Para uma análise das instituições escolares. In: A. Nóvoa (Coord.). *As organizações escolares em análise* (pp. 13-42). Lisboa: Dom Quixote.
- Pires, M. J. (2011). *O Percurso de Gestão de uma Escola Pública em Portugal no caminho para a Autonomia* (Dissertação de Mestrado em Administração e Planificação da Educação). Porto: Universidade Portucalense Infante D. Henrique.



Prado, M.G. & Prado, D.M. (2001). O administrador escolar: visão e esclarecimentos. *Interação. Revista de Ensino, pesquisa e Extensão*, 3(3), 24-27.

Stake, R. (1995). *The Art of Case Study Research*. London: Sage Publications.

Legal references

Lei n.º 17/2016, de 7 de outubro – Lei de Bases do Sistema Educativo Angolano.

Proposta de Regulamento Uniformizado para Escola de Formação de Professores e dos Magistérios Primários na Província de Benguela.

Regulamento da Escola de Formação de Professores, de 5 de dezembro de 2014.



Growth of the agricultural sector is one of the main directions of the economy diversification strategy

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Abstract

Food security is one of the key human rights. Therefore, ensuring this right is one of the most important tasks of the Government of the Republic of Azerbaijan. Food security means food for a healthy and productive lifestyle for everyone. The solution to this problem is primarily related to poverty reduction, food security, and the increase in the use of food products. Reliable food supply is a key condition for economic stability and social sustainability of each country. The article studies the priorities and strategy of the state in ensuring food security, as an essential element of economic security, and also reveals its essence and current state. The article considers the essence, the current state of food security and its priorities as an important aspect of the state economic policy. Since food security is one of the main conditions for maintaining economic stability and sovereignty throughout the country, the article investigates the directions and factors for ensuring it.

Key words: Food security, Agricultural produce, State regulation, Economic support, Agricultural sector

Introduction

The country's food security is an inseparable part of its economic well-being and national security. Improving the food supply of the population of the republic is a priority socio-economic problem, the solution of which depends on the welfare of the country. At present, in the world, in general, and in particular in Azerbaijan, the leading direction of state policy is to ensure food security. This direction of state policy covers a fairly diverse palette of national, economic, social, demographic and environmental factors. As a consequence of the above, food security, which is based on attracting domestic resources, is directly linked to the socio-economic system of the state.

The foundation in ensuring food security of people and achieving food independence by the state is a developed food system of the republic. Depending on its state, efficiency of use, increase in production and economic potential, the level of provision of the population with main types of food products of domestic production is determined. The increase in imports has a negative effect on the state of the country's food system, having a restraining effect on its development.

Depending on the basic potential of agricultural production, investment in food production, including agribusiness, depends on the level of food security. For the formation of policies that ensure the optimum degree of food security, the interrelation of theoretical and methodological positions on which it is based is necessary. The implementation of this policy should be focused on the creation of certain socio-economic conditions that are necessary for work, in order to assist the producers.

Currently, food security is the basis of socio-economic development, an important element of the state's economic and national security. Only by ensuring food security can conditions be created and mechanisms for counteracting economic threats can be developed, reproduction processes in the agribusiness system can be



developed, and self-sufficiency in food can be increased in the republic. This is explained by the fact that in modern conditions food security is global.

Metho

- systematic analysis
- comparative analysis
- logical generalizations
- economic and statistical method

Economic Stability and Social Resilience of Country

Reliable food provision is one of the key conditions of the economic stability and social resilience of any country. Growth of this sphere is of great importance in regard to employment (about 1,5 million men work in the agrarian sector), further growth of non-oil sector, provision of food security, unemployment and poverty reduction.

By 2050 it will be necessary to increase total food production by 70% , in order to provide food for the peoples of the world the number of which will reach 9,3 milliard men. Meanwhile according to trends of growth in the living standards of the people in the world there will be rising demand for healthy and high quality products.

In 2015 The United Nations confirmed the document “The Transformation of the World: The Declaration of the UN on transformation of the world: order paper in the sphere of the stable growth for the period till 2030”, the principal aims of which are elimination of hunger, nutrition improvement, food security provision and stable agricultural growth.

In the light of these appeals throughout the world new trends are emerging in the development of the agricultural sector. As a result of the rapid expansion of urbanization processes considerable changes took place in the role and structure of the agrarian sector. Thus amid the limitations of land and water resources it is necessary to increase food provision to a large extent. In the consequence there is a need to increase the use of technology which will allow use of intensive production methods and steady agricultural production. So wide use of up-to-date technology and innovation in agriculture nowadays is the key tool for strengthening global food security and reduction of negative influence on the environment. At the present stage of agrarian reform the main strategic approach is economy diversification and modernization, decrease in oil dependency, closer integration into world markets, reduction of production costs by increasing production and improving the farmers' financial welfare.

Thereby considerable changes arise in the role and structure of the agrarian sector. We believe that its main directions are:

- specialized loan policy which can provide food product producers with enough amount of capital;
- introduction of tax incentives and organization of conditions that will help attract investments;
- reduction in price disproportion that has long been among producers engaged in industry and agriculture;
- introduction of concrete assistance to the residents who do not have high purchasing power.

The strategic goal in this case is to achieve food security and the achievement of economic independence by the country. Achieving food security and food independence is directly interrelated with the problem of macroeconomic stabilization. It is the only way that contributes to improving food security and strengthening the country's independence in food self-sufficiency. The availability of economic growth stipulates an increase in the real incomes of the population which leads to an increase in demand and this, subsequently, is the cause of growth in the agricultural sector.



To ensure the population's need for food products at the appropriate level, the efficient use of on-farm facilities and resources is essential. This is explained by the fact that many farms of the republic are located in mountainous and foothill parts, and the lands of many farms that are located in the central part are saline. That is why it is necessary to prevent land erosion and carry out land reclamation and irrigation work in the central zone for the intensive development of plant growing and animal husbandry in the mountainous and foothill regions of the republic.

In Azerbaijan, during the years 2003-2017 real growth in agricultural production was 166.4%, including 156.7% in crop production and 177.8% in animal husbandry. According to the data of the World Bank, the real growth of agriculture in Azerbaijan over these years is higher than the corresponding figure of countries in the region.

In 2018, the dynamic trend of the agricultural sector continued, and the total agricultural production in the first nine months increased by 4.3 percent compared to the same period of the previous year, including crop production by 5.8 percent and livestock production by 2.7 percent .

Table 1. Self-sufficiency in crop production,%

	2010	2011	2012	2013	2014	2015	2016	2017
Total of Cereals	56,5	64,8	64,3	63,9	60,6	64,5	63,8	66,3
Wheat	48,9	57,7	56,8	55,9	54,1	54,8	52,9	58,1
Barley	87,7	93,7	95,1	97,8	84,6	95,1	101,7	94,4
Corn	64,5	68,0	67,3	60,0	56,7	54,1	71,1	70,7
Oats	80,6	82,8	84,4	89,3	62,2	93,1	85,7	90,1
other types of grains	1,0	4,0	8,7	2,3	1,1	6,3	32,0	20,4
Leguminous plants	65,8	70,4	71,6	76,6	76,5	69,3	68,4	73,7
Potato	100,5	101,6	98,2	97,6	89,7	89,1	85,5	89,2
All kinds of vegetables	97,6	95,7	98,9	102,3	103,4	103,4	105,4	115,2
Plantation products	100,0	100,2	100,1	100,0	100,4	100,0	100,2	100,2
Fruit and berry	107,9	116,8	125,7	121,8	120,1	113,7	116,4	122,4
Walnuts and nuts	121,6	139,9	134,4	134,9	151,4	132,5	141,9	152,9
Pomegranate	...	...	106,7	104,7	103,5	103,7	105,2	104,5
Grape	90,4	89,9	94,3	94,8	97,9	93,1	89,2	93,4

Source: <https://www.stat.gov.az/source/agriculture/>

Table 2. Self-sufficiency in livestock products,%

	2010	2011	2012	2013	2014	2015	2016	2017
All kinds of livestock and poultry	87,7	87,2	91,8	92,4	92,4	94,7	87,9	84,7
Beef and meat products	95,5	88,0	92,6	86,3	87,7	91,8	93,5	86,3
sheep (goat) meat and meat products	99,7	99,8	98,5	97,7	97,9	99,3	98,7	98,0
Pork and meat products	19,7	14,7	25,7	36,0	16,6	17,8	7,0	5,6
Poultry and meat products	70,6	79,9	87,8	98,5	98,0	98,6	79,1	79,7
Milk and dairy products	70,4	70,9	72,5	76,0	76,3	84,3	87,7	86,1
Eggs	97,9	77,4	96,2	100,0	99,7	99,7	98,8	100,5
Fish and fish products	76,6	73,0	74,7	71,7	72,8	77,6	82,3	81,2

Source: <https://www.stat.gov.az/source/agriculture/>



Regulation of the food market to meet consumption, mainly through domestic production, has two important meanings. First, how much less a country will depend on foreign countries, how much stronger and more realistic its independence will be. Secondly, the development of local production will reduce transportation costs and provide the population with food of the highest quality.

At the same time, the state involvement which is a direct subject of the economic process in this sector of the national economy, is offered to a less extent than the support for the emerging market institutions and the infrastructure of the agricultural sector.

The problem of state intervention in the agricultural sector has two different points of view. Firstly, it is the absence of the need to regulate the production process in agriculture, and secondly, the presence of state control in the food production. We believe that the second point of view is more acceptable, since with a market that is perfect, competitive and socially oriented, the agricultural sector becomes an industry with a higher degree of competitiveness, because in almost all regions of the country homogeneous types of food are produced and the demand for many of the nutrition products is inflexible.

We understand food security of the country as timely and uninterrupted meeting of the needs of the population within the limits of rational nutrition standards, mainly due to domestic production, sufficient for the normal process of people's livelihoods, and not for their existence. Both in the country and its regions, ensured food supply can be achieved only through scientifically grounded economic regulation, that is, using the following management levers: protecting the economic interests of producers, quoting production volumes, subsidizing possible farm losses, setting threshold prices, etc. .

One of the main directions of state intervention should be the direct leadership of certain industries and objects that need government support. In addition, for the development of the agrarian sector, in our opinion, it is necessary to develop entrepreneurship based on market competition.

From the state there should be guarantees to producers about the possibility of purchasing products in the amounts specified by the contract, at prices that compensate for the cost of production and provide profit to manufacturers of products at an acceptable rate and at the best and worst weather conditions. Realizing their products at these prices, agribusiness enterprises, which conduct production at the optimal level, will get a profit that is sufficient to increase the wages of workers and acquire the necessary means of production. This will automatically eliminate the need for state subsidies, for writing off loans on overdue loans, etc.

The support of the agricultural sector in the economic regions of the country, in our opinion, should be differentiated by products. For food products that are competitive in the global market, it is necessary to create conditions that encourage exports. In those regions in which their mass production is established, government support should be aimed at increasing production efficiency and measures to expand product sales.

Economic science justifies that the engine of economic growth is market competition, and the economic regulator is the law of value. Due to competition, all agricultural commodity producers are forced to strive for a constant reduction of costs in production and sales, that is, to reduce the cost of a unit of production below that adopted by the average industry level. Those enterprises will be profitable, in which the cost of production will be lower than the industry average.

By developing market competition, a favorable impact on the structure of production is achieved, producers in the agricultural sector begin to direct their investments in such industries that have quick returns and regular demand. In the presence of competition between producers of agricultural products on the market, much attention is paid to the development of production relations.



We believe that it is impossible to ensure food independence if protectionist policies are not pursued in agriculture and related branches of the light and food industries. Besides, it should be borne in mind that depending on the state of the facilities and resources of agriculture, the size of the areas set aside for the cultivation of crops, the state of fertility of lands, etc. are determined by the capability of agriculture at an accelerated pace to increase food production.

Also very important are measures for the economic support of commodity producers by consistently introducing a system of preferential taxation. For example, the current law on exemption of agricultural producers for a period of five years from all taxes, with the exception of land, is a good example of preferential taxation. However, we believe that the benefits in the tax system should not relate to income derived from operations that are associated with the sale of land or other property of enterprises.

Preferential loans must be clearly divided into temporary and permanent. The period of temporary low-interest loans should be set for a period not exceeding two years and determined for those types of products, the decrease in production of which is caused by unfavorable market conditions. And permanent preferential loans need to be maintained for those who are working on the creation of highly productive seeds, the development and production of new high-performance machines for the production of agricultural products, new highly effective types of fertilizers and plant protection products.

The foundation for ensuring the food security of the country should be a food industry, which should operate at a very high level, as a result, encouragement and support to it by the state is essential. And to achieve its realization is possible using the system of state regulation.

The guarantee of receiving all the presented products should not exclude the manufacturer of products directly entering the market. Under the guarantee, it means that if the commodity producer for some reason has not entered the market channels, the state guarantees acceptance of its products at the quoted prices (purchasing and collateral). This product acceptance guarantee provides favorable conditions for manufacturers, protects them from bankruptcy, will contribute to the development of their economy, and, ultimately, this will lead to stability in the market.

The protection of agricultural producers lies in the fact that they are given the opportunity to choose voluntarily the form of sale of their products, thus protecting their interests.

An important issue is the determination of quotas for state guarantees for the sale of products. According to the interests of the development of the agricultural sector, any restrictions in receiving products are undesirable. Restrictions from the point of view of state positions are also undesirable, because this leads to a slowdown in the rate of accumulation of stocks in goods. But, in some cases, according to the budget possibilities, corresponding restrictive quotas can be introduced. In this case, it is necessary to follow the principle of regional differentiation, which reflects the requirement to rationally place the branches of the agrarian sector in a vast area.

Measures to support agricultural producers, their protection should not interfere with the reduction of production costs. In this regard, programs to support manufacturers of agricultural products need to be linked to accurate indicators that determine the effectiveness of their work.

Volumes of sales from state stocks can be increased if there is a sharp increase in retail prices to protect consumers. With a sharp decline in retail prices, the state does not need to sell products. In this situation, it is



advisable to buy it to protect the interests of manufacturers. As a result, the presented mechanism for the sale of food products from public resources does not violate market conditions and helps stabilize the food market.

The agrarian policy applied in the EU is not quite suitable for use in Azerbaijan, which has some isolation in international relations with countries due to the use of customs barriers and various restrictions on foreign trade. Today, the development of the agricultural sector, in the interests of Azerbaijan to adhere to the policy of protectionism of agricultural production, so as to participate in world trade on an equal basis, it is necessary to achieve full development of agriculture and have competitive products.

Food and processing industry is one of the most important links of the agricultural sector. Its purpose is to provide the population of the country with a diverse assortment of food products that will meet the needs of different groups of the country's population. To successfully solve this problem, it is necessary to create a solid base in the production of agricultural raw materials, modern food industry and obtainable food for the population. The main focus should be food quality and food security, which is based on reliable self-sufficiency of the country with the main types of food.

Connecting the technological chain from the field, the farm to the consumer, the food and processing industry largely determines the efficiency of the entire agribusiness system in the country.

It is important not only the cultivation, but also a more complete preservation and efficient processing of agricultural products, turning it into high-quality products. However, this is only possible with a modern food industry. The most important task is to push this most important sector of the economy to the world level in order to ensure the competitiveness of our products.

The problem of providing the country with national food must be a priority. Taken as a whole it is necessary to solve the problem of increasing the production of high-quality raw materials for agriculture, improve the technical level at food production enterprises, create fundamentally new, environmentally safe products of high quality.

In modern conditions, the survival of enterprises in the agrosphere, the effectiveness of their work is largely determined by the level of development of scientific and technical achievements, their connection with science. The efforts of scientific institutions should be aimed at the development of new technologies that save resources, involved in the implementation of modern physicochemical, biochemical, microbiological and biotechnological methods of developing raw materials and producing food with high nutritional and biological value.

In our opinion, the sustainable development of the agricultural sector and all other related industries, science and technology in Azerbaijan is the ultimate goal in the implementation of the vital interests of domestic producers of food products. This is associated with the solution of a number of tasks that producers face in the course of the production process: making a profit from the sale of their products; reducing the cost of goods; continuous improvement of characteristic features of consumer products; establishing reliable production relationships with suppliers; increase in capital investments in their production, the expansion of its volume and continuous increase in efficiency; update of applied technologies, etc. It becomes obvious that the Azerbaijani commodity producer needs material, financial and other support from the state.

Thus, in order to achieve food security, policies need to be pursued that will contribute to the investment of human resources, research and infrastructure.

The agrarian policy of the state plays an important role in the development of the agricultural production. In industrialized countries, the government compensates a significant portion of the costs of farmers. The state is



engaged not only in providing a higher level of production, but also in supporting exports, protecting producers of agricultural products from external competition.

It is known that the demand for basic foodstuffs is maintained, even if their prices are rising. No matter how much food costs, people buy it anyway, refusing to afford, for example, durable goods. It is noticed that the rise in food prices by 1% almost does not affect its consumption, because with the rise in price of cheap food (bread, potatoes), their consumption increases while reducing the demand for animal products (meat and sausage products), which for certain layers of society becomes inaccessible.

It is clear that the state should be one of the main regulators of the food market. It is his task to set threshold prices to protect the agricultural producer. The mechanism of such protection involves commodity intervention and direct payments to support the lower level of prices to ensure reproduction conditions in agriculture.

In a well-established market economy, the role of the state in the food sector is to regulate food supply processes, control over their successful development, support national food producers and the create food stocks in emergency circumstances. In addition, ensuring food security is not only the direct provision of food to the population, although this task is its main goal. To ensure food security, it is necessary to achieve the following aspects: the creation of strategic food stocks; formation of the optimal ratio for the country in the provision of food through its own production and import; development of the production base of agriculture, as well as enterprises processing agricultural raw materials, trade in these raw materials and foodstuffs; expansion of transport networks to ensure uninterrupted supply of raw materials to the food industry, and food - to consumers; phytosanitary and veterinary control in agriculture, the food industry and food trade; formation of acceptable food prices for the majority of the population.

Results

The basis of agricultural protectionism is to ensure the country's food security and support its foreign trade balance while limiting imports and subsidizing exports. At the same time, the most important is the preservation and development of the national agribusiness system as one of the important sectors of the economy as a whole [115]. It is necessary to increase purchases of agricultural machinery, make it more affordable, increase the terms of lease payments, reducing to a minimum the level of interest rates on leasing. One of the areas that requires further development is risk insurance in agriculture.

The main goal in the agrarian policy of the state should be to accelerate the growth rate of agricultural production by strengthening its competitiveness and increasing the attractiveness of life in rural areas.

In addition to the efforts of the state, the efforts of society as a whole, its individual strata and groups, and the agribusiness itself are of great importance for ensuring food security of the country under the market system of management. In an established market economy, the role of the state in the food sector is to regulate the processes of food supply, control their successful development, support national food producers and create stocks in case of emergency.

In addition, food security is not only the direct provision of nutrition to the population, although this is its main objective. To ensure food security, it is necessary to achieve the following aspects: the creation of strategic food stocks; the formation of the optimal ratio for the country in providing food through its own production and import; the development of the production base of agriculture, as well as enterprises for processing agricultural raw materials, trade in these raw materials and food; expansion of transport networks to ensure uninterrupted supply of raw materials to the food industry, and food to consumers; phytosanitary and veterinary control in agriculture, food industry and trade in food products; formation of affordable prices for food for the bulk of the population.



Conclusion

In conclusion, the study, we came to the conclusions, which are described in the following form

- Taking into account the decisive role of agribusiness in ensuring food security, the state should provide its financial support, stimulate the development of agricultural production and the agrarian market, industry and inter-sectoral processes, taking into account the benefits and interests of economic entities of agriculture.

The need for government intervention in the economic mechanism of agribusiness follows:

- First, from the peculiarities of agricultural production, which acts as the fundamental basis of the system of social division of labor, linking the reproduction of direct human life with the use of resources and natural forces, as well as the latest technologies. These circumstances place high demands on the quality of agricultural management and involve the implementation of a number of activities. Since, quite often, due to adverse weather conditions and natural disasters, not only the production costs are not repaid, but the producers themselves incur losses, it becomes necessary to combine a market mechanism with state regulation of the agricultural production process.

- Secondly, the state budget policy implies the centralization of financial resources and, accordingly, the possibility of their redistribution and investment in the most needy production and sales.

- Thirdly, the criterion of the functioning of any economic system is the expanded reproduction of the final national product and the reduction in the unit cost of production, and not profit by any means. Therefore, the need for state regulation is reduced to the creation of favorable conditions for agribusiness entities and the relations between them, since their activities directly affect the food market, and therefore on national food security.

- The main major threat to the food security of the country is food imports, developed during the years of market transformations and associated with a reduction in local agricultural production, an unjustifiably fast and wide opening of the domestic food market. Strengthening imported food addiction poses a threat to the economic security of the country, the danger of the conquest of its domestic market by foreign firms.

However, a complete rejection of imports is a wrong position even for the food for which the country provides itself, because it will reduce economic benefits, reduce competition for local producers and strengthen national monopolies in this sector.

As the role of the state in regulating the protection of local producers in the Azerbaijani food market is enhanced, it should lead to the creation of independent state agencies conducting preliminary examinations that are in the process of concluding large-scale agreements that are concluded with foreign firms; strengthening state control over business entities in their foreign economic activity regardless of the form of their ownership; the definition for foreign investors, in accordance with the legislative procedure, not only of the priority sphere in the application of capital, but also of industries prohibited for foreign investment; tighten the process of acquiring shares of certain enterprises by foreign investors.

References

- I. Abasov - Agriculture of Azerbaijan and world countries. Baku - 2013, 712 p.
- G.A. Azizova – Regulation of Economy. Baku - 2015, 203 p
- E.N. Antamoshkina Food Security Assessment in the Region: Methodological Issues // Food Policy and Security. - 2015. - Number 2. - Volume 2. - p. 97-112.
- S.M. Bogdanov. Food Security and International Trade in the Commonwealth of Independent States, The publishing house "The Whole World" 2011 M. : 272 p
- M.C. Huseynov. - Sustainable development problems in the agrarian sector. Baku - 2006, 304 p.



R.Perez-Escamilla Can experience-based household food security scales help improve food security governance?
Glob Food Sec 2012;1:120–5.

<http://do.gendocs.ru/docs/index-228650.html> «Pursuit and solution ways of food security problems»

<http://anl.az/down/meqale/xalqgazeti/2010/fevral/107115.htm> <http://1news.az/az/mobile/news/aqrar-sahenin-ugurlari-azerbaycanin-dinamik-inkisafinin-neticesidir>

http://ereforms.org/store/media/ekspert_yazilari/islahat%20icmali/mart/strateji%20yol%20x%C9%99rit%C9%99si%20-eng1.pdf «Strategic Roadmap of Republic of Azerbaijan»

<http://www.fao.org/3/i9553en/i9553en.pdf> «The State of Food Security and Nutrition in the World 2018
Improving resilience to climate for food security and nutrition. Rome, FAO. License: CC BY-NC-SA 3.0
IGO».

<https://www.stat.gov.az/source/agriculture/> «The State Statistical Committee of Republic of Azerbaijan»



Modern Education System: the role of innovation in learning languages

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Abstract

The application of technological means in science, education and teaching in the modern education system shows its positive influence on getting and spreading of the new scientific achievements. Today one of the areas in which the application of information and communication technologies is necessary for the study, teaching and propaganda is language. To learn the languages, to take advantage of these opportunities to bring them to the world level is very important. In general, it should be noted that the development level of languages is measured by two criteria:

- a) The perfection of the phonetic, lexical, grammatical structure of the language;
- b) To have the native speakers with high cultural, scientific, political and economic achievements.

The role of computer technology in teaching and dissemination of languages within technological means is much greater. Thus, all the possibilities of teaching and promoting language should be fully placed in the computer system. If the user enters any information in that language into the computer, he will examine the components of the information, the word composition carefully and he must obtain the necessary information. In other words, this system should present the entire competence of other languages to the user as well as it reflects the English and Russian languages in the same way. The use of information and communication technologies in the education system, which is the future of the nation at the request of the globalization period, leads to the increase of the intellectual level of teachers and researchers, as well as students to the world scientific level, integration of national and human achieve

Keywords: Modern requirements, Technological means, Computer technology, Method.

Introduction

In the modern world, new information technologies are used in all spheres of human activity, as well as in the education system. In recent years, teachers have been using personal computers in their lessons as a means of visualization, a tool for developing skills, a source of additional information, etc.

It is no longer possible the vital activity of a person without a computer. It is computerization and application of new information technologies that is an opportunity that will help create a new education system. These are not only new technical means but also new forms and methods of teaching, a new approach to the learning process.

The use of ICT for solving the problems of developing intercultural competence will be effective if you implement cultural and axiological approaches in building the content of education and the process of intercultural activity on the global Internet. The current educational paradigm is built on computer-based learning tools, and students are not given ready-made knowledge and skills, but they instil in them self-education skills. In this case, the work of students in the classroom is the nature of communication with the teacher, mediated through interactive computer programs and audiovisual media.

Informatization of education is the process of providing the educational sector with the methodology and practice of developing and optimizing the use of modern or information technologies oriented towards the realization of the psychological and pedagogical goals of teaching education.



Materials and methods

New information technology was selected as a main material. The paper reflects the advantages of new information technologies over the traditional method.

In our work, we relied on the following methods: a consciously practical method and a comparative method.

Results

As a result of the study, it turned out that the use of new information technologies optimizes the process of teaching non-native language. Using them in the classroom in a non-native language increases the motivation and cognitive activity of students expands their horizons. Information technologies, considered as one of the components of a holistic learning system, facilitate access to information, open up opportunities for the variability of learning activities, its individualization and differentiation, allow for a new way to organize the interaction of all subjects of learning, to build an educational system in which the student would be active and equal. Participant in educational activities (*Selevko, 2005*).

Discussion

For a long time, the question of the use of computer technology in the learning process was controversial. Methodist scientists have expressed different opinions on this. Several scientists believed that in the process of teaching a non-native language, it is possible to do without technical means.

Nevertheless, most scientists believe that any teaching method is enriched by the integration of information technology into it. However, if in the process of teaching informatics ICTs act both as an object of study and as a means of learning, in the process of teaching general educational disciplines they are only means.

Foreign language training since the eighties carried out with the help of computer technology. A new direction has emerged, where the theoretical and practical aspects of the use of new information technologies in the process of teaching non-native language are considered. In our country, this direction has been called “computer linguodidacty”, and in foreign literature the term CALL (Computer-assisted language learning).

The scientist K.R. Piotrovskoy proposed the term “computer linguodidactics” in 1991. M.A. Bovtenko believes that this term covers all the theoretical and practical aspects of the use of information technology in teaching non-native language. According to MA Bovtenko soon this term can be superseded by the term “electronic linguodidactics” in connection with the spread of information and communication technologies in teaching IYA and expanding the number of platforms through which (electronic) communication takes place (*Bovtenko, 2005, p.20-22*).

Computer Linguistic Specialist R.K. Potapova believes that the limited use of such programs is permissible in the modern practice of teaching IYA, but only for mastering and consolidating basic skills. (*Potapova, 2016, p.364*).

Researchers E. V. Bondarevskaya, V. V. Serikov, V. A. Slastenin, I. S. Yakimanskaya and others emphasize that the use of computer technology creates favourable conditions for the formation and development of linguistic and communication skills according to a person-oriented approach to learning IY, taking into account the personal needs and characteristics of students. Also among the advantages of using multimedia and digital technologies in the process of learning IYA are domestic methodologists-lingvodidakty M.N. Evstigneev, L.V. Kudryavtseva, E.S.Polat, S.P. Sysoev, I.I. Khaleeva, L.A. Tsvetkova et al.



Distinguish the following:

- 1) Providing a large amount of authentic information;
- 2) Impact on all channels of perception through the use of multimedia technologies (text, graphics, sound, animation, video);
- 3) Adaptability;
- 4) non-linearity of information provision;
- 5) High involvement in the educational process. (*Gsevskeya and Yeremina, 2000* , p.97-101).

The study of the state language and the language of international communication takes one of the most important places in our republic, including in the education of patriotism and internationalism, tolerance, and culture. Requirements for a specialist in terms of intercultural communication in the modern world are great and imply that he masters not one but several foreign languages at the user level. Innovative pedagogical technologies increase the motivation of students and students' interest in the subject, form an environment of creative cooperation and competition, actualize the personality of students, cultivate a sense of self-esteem in them, give them a sense of creative freedom and most importantly bring joy. In this regard, the problem of studying and using innovative technologies in teaching a non-native language becomes urgent.

Along with English, Russian is also studied in Azerbaijan. If English is considered international, then Russian is the language of international communication. Azerbaijanis use it both in international and professional communication. The role and place of the discipline "Russian as a foreign language" in the education system is growing. Education today is keeping pace with the times, the modern Russian language lesson represents a complex education, the preparation, and implementation of which requires a great deal of creative effort from the teacher. Possession of the Russian language as non-native is considered in Azerbaijan as an important factor of socio-economic, scientific-technical and cultural progress. The individual of universal human values studies foreign languages with a view to their further functioning as a tool for comprehensive information exchange, the interaction of national cultures, and the assimilation. The country's needs are growing in specialists capable of using the Russian language to effectively provide various types of communication. These needs make up the social order.

The following technologies are used in the practice of teaching Russian at the present stage of education: 1) design technologies 2) information technologies 3) technologies of language portfolios 4) modular-block technologies. The most accessible are information technologies (*Astana, 2004*) .

Azerbaijan today has become a center of tourism. Tourists come from different countries who admire the beauty, sights, and ancient monuments of the country. Interest in the country encourages these people to learn the Azerbaijani language.

The process of teaching a non-native language (it can be teaching foreigners Azerbaijani language or Azerbaijani-speaking Russian language) is a complex system that requires constant updating and development. Therefore, a language teacher is looking for new ways and methods to optimize the learning process.

The relevance of the above is determined not only by the social order but also by the human needs for self-determination and self-expression in the conditions of a modern, information society. In the conditions of modern society, the information communication competence of a teacher, his ability to solve professional-pedagogical tasks with the involvement of information and communication technologies, becomes an important component of his professionalism.



Traditional pedagogical technologies no longer provide complete assimilation of the ever-increasing volume of knowledge. Today it is becoming increasingly important to be able to independently extract additional material, process the received information, draw conclusions and argue them, having the necessary data. The use of such a complex allows you to replace the traditional visual and sometimes cumbersome benefits in the classroom multimedia.

The computer is loyal to the diversity of students' answers: it does not accompany the work of students with praising or negative comments, which develops their independence and creates a favorable social and psychological atmosphere in the classroom, giving them self-confidence; this is an important factor for the development of their individuality.

Information and communication technology tools are software, software and hardware, and hardware and devices that operate on the basis of microprocessor, computing technology, as well as modern means and systems for information broadcasting, information exchange, providing operations for collecting, producing, storing, storing, processing, information transfer and access to information resources of local and global computer networks.

In independent work on the study of a foreign language, Internet users can get an answer to most of their questions, to familiarize themselves with materials on linguistics.

Information programs are divided into collective and individual. "Collective programs are most in-demand because they can solve almost any problem of vocabulary, grammar, style and other aspects of the language. They are used by students to obtain the necessary information" (*Vekilova, 2011, p.266-270*).

Individual programs, in contrast to collective programs, make it possible to solve a problem on one topic.

Currently, a wide range of computer programs is offered for language learning:

- Training programs - for the acquisition of certain knowledge and skills;

- Training programs - to consolidate knowledge and skills;

- Supervising programs - for quality control of knowledge and their correction;

Game programs.

The use of computer programs allows you to shift the focus from reproductive activity to creative. Today there is no such teacher who would not use PowerPoint presentations in his work. Teachers can also use YouTube to find online educational materials and create their educational video channels on various subjects, post video recordings of classes for their students, create an archive of video materials of their group and integrate it in the video archive of the entire university, embed learning materials into materials on the website pages of educational projects. The use of computer programs allows you to shift the focus from reproductive activity to creative. Today there is no such teacher who would not use PowerPoint presentations in his work. Teachers can also use YouTube to find online educational materials and create their educational video channels on various subjects, post video recordings of classes for their students, create an archive of video materials of their group and integrate it in the video archive of the entire university, embed learning materials into materials on the website pages of educational projects.

Conducting modern Russian lessons using an interactive whiteboard, a projector, a computer and special software that allows you to work with texts and objects, audio and video recordings, transform the handwritten text into print, save information, etc., becomes the norm in the economic the university.



The introduction of a computer in the educational process is to a certain extent the key to success in learning. The use of a computer makes certain changes in the learning process, which are manifested not so much in any particular teaching methods used by the teacher but in changing the style of interaction with students. Under the conditions of this technology, a student is, first, a partner who has the right to make decisions (the choice of the content of his education, the level of his mastery, etc.). The introduction of a computer in the educational process is to a certain extent the key to success in learning. The use of a computer makes certain changes in the learning process, which are manifested not so much in any particular teaching methods used by the teacher but in changing the style of interaction with students. Under the conditions of this technology, a student is, first, a partner who has the right to make decisions (the choice of the content of his education, the level of his mastery, etc.).

The use of ICT in language lessons has several advantages over the traditional method. Occupations become bright, lively, interesting, and spectacular. It is additional material to the textbook, with the help of which students can expand their horizons, increase their cognitive interests, independently obtain any information they need and control their knowledge. If the language classes used to be grey, boring, then modern lessons are spectacular and easy to remember.

ICT can be applied at all stages of a lesson: when explaining a new lesson, consolidating, repeating, controlling.

The teacher and vocabulary in these lessons is a guide, and he guides the students. Moreover, this gives students the opportunity to be more independent and operational.

At the lessons, students are introduced to portraits, photographs, illustrations, even to watch excerpts from films, listen to audio recordings, and go on excursions in theatres and museums..

Students can prepare group homework presentations.

The use of presentations in language classes creates a favorable working environment for understanding spelling and punctuation. When boring theoretical material is served in the form of colorful tables, diagrams, drawings, classes become interesting and exciting. It is advisable to give students a variety of interesting tasks, tests, crosswords, illustrations.

Listening to audio recordings contributes to the development of expressive reading skills. In addition, recording your voice and then listening to it gives students to correct their pronunciation, eliminate errors in it.

The use of audiovisual means activates the process of learning by language, improves the types of speech activity. Firstly, students relax from tedious theoretical materials, secondly, they develop self-motivation. If the film is interesting, then it brings satisfaction, gives faith in his strength and does not tire the students (*Vesova and Chistyakova* , 2013, p.145- 148).

To organize a class with a video film, the teacher should have a clear idea about the organization of work: are acquainted with the contents of the film in advance; determine the purpose for which it should be used and what tasks at all stages (*Baturina and Vorobyeva*, 2012, p.153- 155).

The video selection is important. It depends not only on the level of students' language readiness but also on the goals of viewing (*Zaxarova*, 2012, p.153- 155).

Based on the short film, you can offer these tasks:



Exercise 1.

Translate the following words and phrases into your native language

Exercise 2.

Answer the following question

Exercise 3.

Make sentences with these verbs.

Exercise 4.

Retell movie content using reference words.

On the other hand, watch the movie to half and offer them to come up with the end of the story.

As homework, you can invite them to write an essay or presentation, taking into account the level of students' knowledge.

Summing up the above, we came to the following conclusions:

1. The use of a computer in a language class helps the teacher to solve many tasks: determining the level of learnability, working according to an individual plan, and constantly monitoring the learning of the material.
2. Computer can be used in the learning process for various purposes: to explain the new to maximize the learning of the material; for optimum consolidation of the passed material; to improve the control and self-control of student knowledge.
3. Computer use increases the motivation of learning, independence, develops thinking, expands visibility, and introduces the personality-oriented aspect of differentiated learning.
4. These didactic possibilities of a computer prove the effectiveness and relevance of using a computer in non-native language classes.

References:

- Azimov E.G. 2001. Internet in English classes. Foreign Languages in school №1
- Apatova N.B 1994. Information technology in school education.
- Barmenkova O.I. 1999. «Video lessons in the system of teaching foreign speech», «Foreign languages at school», № 3.
- Baturina L.A , Vorobyeva G.B. 2012. The role of audio-visual teaching aids in the process of teaching Russian as a foreign language. News of the Volgograd State Technical University- 10. tom 3, p.153- 155.
- Bovtenko M.A. 2005. Computer linguistics. , p. 20-22.
- Vesova G.N., Chistyakova E.V. 2013. Metodical foundations of the use of feature films in the process of teaching Russian as a foreign language// News of Volgograd Technical University. 2(105). Tom . 12, p.145- 148.
- Vekilova L.G. 2011. Materials for lectures RCTs in high schools Baku. , p.266-270.
- Vladimirova L.P. 2002. Internet in a foreign language class. // «Foreign languages at school», № 3, p.33- 41.
- Gsevskaia N.Y, Yeremina V.M. 2012.Training in foreign language communication for students of non-linguistic specialties based on the use of ICT and active teaching methods //Scientific notes ЗабГУ. Series: Vocational education, theory and methodology of training. №6 p. 97-101.
- New pedagogical and information technologies in the education system. // Under. ed. E.S.Polat et al. M: Academy , 2000.
- Zagrazkina T.Y. 2002. «Sound Encyclopedia» and computer training in foreign languages // Bulletin of Moscow State University, № 4, p. 7-13.
- Zaxarova I.G . 2012. Information technology in education. M. Publishing Center "Academy" 2005. –10. Tom 3/p.153- 155



The concept of development of education until 2015 , Astana, 2004.

Selevko G.K 2005. Pedagogical technologies based on information and communication tools. Popular education. Moscow .

Kurlova I.B Work with educational, animated and feature films in the lesson RCT [electronic resource] // [http://library. Cie.ru/ file/ php/ b 8d 63bd](http://library.Cie.ru/file/php/b8d63bd).

Potapova R.K. 2004. "New information technologies in linguistics". 2nd edition.- M., p. 15-17.

Potapova R.K. 2016. "New information technologies and linguistics": studies. allowance; Moscow State linguistic un-t. - Ed. 6th - Moscow: LENAND, p.364.

Xromchenko A.T. 2007. Denisov A.V. "Modern information technology" p.53-54.



Concept Creativity and Education in the Framework of Economic Development: The Case of Azerbaijan

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Abstract

The Republic of Azerbaijan has stepped into the path of democratic development and has become the world's most influential country. Integration of national economy to world standards, structuring of market economy, developing opportunities for entrepreneurship, realization of foreign capital investments are among the indispensable conditions for economic development of Azerbaijan. Recently, businessmen and investors from many developed countries around the world have been informed about the business trips to the country and important developments in the international comparison and integration of the country. Free and independent development of the Republic of Azerbaijan can not stand on the edge of economic developments in the world. In every independent country in the Republic of Azerbaijan has undertaken educational institutions to train specialized staff in their fields. In order to train these cadres and to catch up with the rapid development trend of the country, it is necessary to prepare classrooms in the field of economics suitable for the world market in Azerbaijani language and especially to translate the economic concepts. These important studies are carried out by the educational institutions with their own means and with the help of the supporting private companies. The main supporters in this regard are the Central Bank of the Republic of Azerbaijan and BP oil company. The main objective of this study is to analyze the literature preparations and the point reached in the country. As a result of the findings determined for this purpose, recommendations will be made in the form of studies to be done.

Keywords: Creativity, Economic development, Education.

Introduction

A great deal of support for the democracies' roadblock. It is easy to think of and improve the world. Unified Universal System of Universities, Market Disadvantages Formation of businessmen and entrepreneurs, entrepreneurship and entrepreneurship Ongoing cultural development, better development of the well-being From the standpoint, the insulators are supposed to shield. We also have a look at some of the most evolving worlds in the world of criminals. Business incubation and the development of international business Be cheaper than your family. Deciding on the Mitsubishi and the Azeri Incidents The Hungarian-speaking world and the political process in the Azeri world Have fun in the mainland.

Romanian Ion Eliezeskoye, President of the Society Diandijiriyyan and Azarbayan Diyangi Dynasty: "Integration and Globally" Excerpt from the book "The Integrity and the Globe" is an example of a world-renowned politician. Two miles or two miles in the global development of the global economic system. Dimensions of the bottom of the blanket are linked to each other. It is also a great opportunity for young people to enjoy the benefits of this new venture. Changes in global and social scandals ”.

There is no end to the mess, the globally, and the integration. You can also play a victim. Think about it, glossy prints technology techno bracelet and gorgeous genius injection In the context of the city, it serves to minimize bottlenecks and conflicts between the world and the world. Idaho It is a good idea to minimize emancipation, to have regular regimen, to use the same policy as syndrome. Finding the Right Politics (4, p.13-15).

Method



In the course of the study, general scientific research methods were used such as methods of deduction and induction, comparative analysis, synthesis, as well as method of scientific review of the source base.

The best thing to do is to have a glimpse of the gluten-free industry. Illustration of Inner Integration and Globation Terminology This is what you need to do.

Azerbaijan's geographical shape, political and economic development So, you have to have a significant impact on your patients' health and fitness.

N.Mammamadli The term thermophysiology of the derivatives in the book "Removable Terminals" Iceland is very eager to say: "The most remarkable part of the dialectology of the Azeri All the terms are consistent. In addition, the Azeri language may also suffer from thermal imbalances in the world. Deductions in the thermocouple are not predictable, but their personal contacts Part of the euphoria of the damage to his family is a good one. " As a citizen, you will be able to do a lot of work in the field of history and history. Large, technological staircases and the high-tech industry or the world of Azarbaiban Overlap of the term in the Lexical Leukemia Decisions of the Emancipation Committee. N.MyMammadyana is the recipient of the remittance terms: "This is your mother. The term for the term lei is not to be used in case of a large leukemia leukemia. Shape and shape. This process does not imply the fact that the bills are politically motivated, one-on-one, and the term In fact, the development of the general sense of dialysis and the development of intellectualism, as well as intellectualism, Intrinsic possibilities for the possibility of cellular terminology Bless "(9, p.9).

It is important to note that the terms are not inferred; the way, the way out of the world. Even with the disability, it is not possible to use the dialect or the dialect. China's multilateral policy is a multilateral, and therefore, effective, policy-maker. extravagant sybabybarylaryang. The most important thing in the world is to have a great deal of fun in the process.

The non-Azeri term is a round-the-clock version of the terms of the New Year. A.Myashishyarryamov was born in 1920-1930, in 1930-1945, in the post-1930-1945 years bureaucratic bureaus. N.Mamdelad is the author of 1945-1991 and 1991 of the later times. The value of the two Eusyatyrian bulletproof prints is very high. (Bach: N.Mammagli Jätäriranyan, p.84-85).

Z. Representation of the term «Converting in Azerbaijan». Lairinyanyan biys ysirak yazir: "The increase of the hymns in 1905 in Azerbaijan and then in Azerbaijan The sociopolitical environment is conducive to the formation of our thermophilic economies. That said, these two-year-old policy makers and donors can help your home sleep well. yes changed. This is a term used in the Azerbaycan dialect, and the Terminology The house was relaxed. National, Turkish, Russian-European and Yoruba-Fars goals are one-of-a-kind Same goes for moms and dads "(2, pp. 107-108).

1924: The Revolutionary Reconciliation Commission Each and every one of them will be in charge of this. In the light of the two-and-a-half-year term, it is worth noting that purity is the most important thing: geography know), astrophysics (euphoria, egoism) в я с. The bullet-proof dwarfs have been reported to have caused a loss of energy in the area.

Half-Farsi, Russian, Yuan, Laotan, Indians in Formation , French, German, Italian, Spanish, Portuguese, Dutch, Polish, etc. Devel- opment terms play a large role. Therapeutic process is always an indie. It is not possible to buy lacquer terms. Terminals offer a wide range of features and opportunities in the Azeri language. The duo have a distinctive set of real estate opportunities. S. Sadiqdogova and his colleague: "The cost of donating to others, the language of Azeri language" Immediate Immune Differentiation for Renewal and Injury Avoid the



use of termites in the blood cell and termites. Definition of Spectators in the Field of Health and Technology in the Euphrates Terrible minarets for the sea and its deep lethal effect on the larynx. It is desirable for us to make a profit from them ". It is noteworthy that Azerbaijan's diversification is conducive to different terms (10, pp. 64-65).

Illustration of the Inquiries will not remove a lot of terminology in this field Benefits: Laborer, Labor, Stock Exchange, Compensation, Gift, Gift, Discretion Worldwide Regulation, Market Inflation, Inflation, Mechanism, Market, Infrastructure, Cigarettes Investment, tender, tender, investment, marketing, marketing, marketing, insurance marquee, credit cards, bills, bills, national currency, emoluments ok u, vaccination procedure, garment market Eugene-denim, high-tech, fast-paced dialysis minutes If the horn gets bigger, the indie horns will be in the middle of the European bushfire. They are always ready for change. The European Union is well aware of the well-being of the United States and the United States. S. Saudykogova Russian and European Dialogue with the term "Myanimacy" The dude and the vice-premier of the Regulatory Authority said: The design of the database is the same as the one that goes on. Our broadcaster will increase the number of non-payment terms from one parent to another. Also, the common thermal treatment base is not being renovated "(10, p.11).

It is important to note that a large Turkish breeder, a common Turkish breeder, or a large Turkish breeder in a beer. In the end, the formation of the world is the most important thing. It is not possible for them to be well-meaning. Some of the good things that come from Jehoiachin go well, and then we get better. The project should not be updated. The Myths, The Indians, Can Be Developed More Than A Thousands Of Common Territories They are no help. Then, the Turkish system will not have a single system of thermal stimulation after its installation. Inquiries. It is noteworthy that the missionaries are concerned.

Unprecedented Dietary Interpretation They do not group any of the following:

- 1) semiannual miscellaneous terms;
- 2) terms used by Russian officials;
- 3) bosses and beneficiaries,
- 4) Non-Azerbaijani (Turkish) health promotion terms.

Results, Conclusions and Recommendations

Then there is the western terminology of the Azerbaijan heart, and the latter terminates and terminates. Most of the history of luxury and luxury historic kuklyrioright is well-known for its popularity. The western terminology is that of them, the Russian narrator or the group. It may not have been used in the middle vocabulary vocabulary or just in the words. The Republic has become the largest single-nationalized version of the Western terminology after the Soviet-era gas boom. The role of one-sided, multi-billionaire debtors has been further exaggerated.

Most of the villagers do not support the development of Azerbaijan and Azerbaijan. It is also possible that the Indians should be able to integrate the Indian politics. or most bureaucrats. Do not be afraid to combine business or politics and the need for a single, common Turkish term. Reinforcing the technology. Liquidation of terms used in this section (Azerbaijan-Turkistan) Russian-English-Russian and English-speaking-Russian-Azerbaijan-o-Tzar-Russian they are useful. Turkish language enthusiasts share a common denominator of Turkish chronophysiology Dual widths for construction (from Turkey, from Azerbaijan, from Gaza, from Turkmenistan) - from the United States and from the World). Most of the people living in and around the globe are suffering from skin disease. and, lastly, the last of these will be published.

References

- Azərbaycan Sovet Ensiklopediyası . (1980). IV cild . Baki.
- Cəlilqızı Z. (2005) " Azərbaycan dil quruculuğu". "Elm" nəşriyyatı, Baki.



- Əsədov Ə. (1997). “Türk dillərində termin yaradıcılığı” Bakı, “Elm”,
- İiyesko I. (2003). “İnteqrasiya və qloballaşma: Rumıniya baxışı” Bakı, “Oskar”,
- İqtisadiyyat terminləri lüğəti, (1994). Bakı “Elm”,
- İsmayılova M. (1995). “Azərbaycan dili terminologiyasının linqvistik təhlili”, Bakı.
- Məhərrəmli Q. (2002). “Kino, televiziya və radio terminləri” Bakı, Azərbaycan Milli Ensiklopediyası.
- Məmmədli N. (2002). “Alınma terminlər”, Bakı, “Elm” nəşriyyatı
- Qısa izahlı iqtisadi terminlər lüğəti, (2005). Bakı, “Nurlan”.
- Rusca –azərbaycanca texniki terminlərin izahlı lüğəti, (2004), Bakı.
- Sadiqova S. (2002) “Azərbaycan dili terminologiyasının nəzəri əsasları, Bakı, “Elm”.
- Şərifov K. (2004). “Rusca – azərbaycanca dəmiryol nəqliyyatı terminləri lüğəti” Bakı.



Customers' Loyalty and Corporate Social Responsibility among Iranian Manufacturing and Industrial Companies

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Abstract

One major social issue drawing attention from authorities and experts in different communities in recent years is lack of social responsibility in organizations and their managers. This is of much more importance in Iran for it is going through a critical period and is in need of development. Managers, nowadays, have to evade attending the details and take social advancement and nation's interests as their priority and guide in their attempts. Once organizations and manufacturers were believed to be responsible only before stockholders and their customers. In other words, they had to manufacture their products with the highest quality and the lowest price and in this severe competition, they had nothing to do with secondary outcomes, population growth and environmental pollution. Novel approaches in management and organization brought social commitment and responsibility. In fact, this responsibility was a response to the environmental needs and challenges. The present study is a survey conducted in private companies in West Azerbaijan province.

Keywords: Corporatation, Social responsibility; Customers' loyalty

Introduction

The relationship between social, political, environmental and economic roles has increased; thus, organizations face new dynamisms. The challenges faced by these organizations are their urge to think of profitability while responding novel social expectations and need for simultaneous management of these seemingly contradictory phenomena through applied strategies with positive effects on organization and the society (Sandhu & Kapoor, 2010). In this regard, one major social issue faced by experts of communities around the world in recent years is lack of respect to the social responsibility of the organizations and their managers. This has been of a higher importance in Iran for it is critically in need of sustainable development (Khalili Araghi & Yaghin Loo, 2004). If organizational policies and missions are defined to realize values and expectations of a society and individual needs are considered to acceptably and legitimately, further goals for an individual will be the social ones. Considering social needs and supreme requirements originate in the fact that humans not only are capable of using their intellects, but also they are social creatures living in small or big groups which are part of the great complex of community. This community is of extreme respect and those living in a society have to coordinate their deeds with the good of the society. In fact, the inherent and biological concept of equality in human mind creates the principle of social responsibility (Bozorgi, 2004). Corporate social responsibility is an important phenomenon with huge fans. It is sometimes referred to corporate responsibility, corporate accountability, corporate citizenship or corporate ethics as well (Hohnen, 2007).



In order to properly observe social responsibility Carol (1991) proposes the organization be responsible in all its levels and its responsibility not be limited to profitability for the stockholders, obeying rules both in economic and legal levels. This responsibility supports ethical rights, fulfills customers' expectations and promotes welfare and good will in ethical and humanitarian aspects of the individuals and societies (Chiang, 2010). On its legal side, corporate social responsibility obliges organizations to following general regulations and rules. The society passes these rules and citizens and organizations have to obey them and respect them as social values. This legal aspect of social responsibility is sometimes called social obligation and this demonstrates how essential it is for businesses to obey the rules that benefit people's interests (Carol, 1991). Societies do not necessarily trust in organizations to act properly; thus, they pass rules so that their businesses could be controlled. These regulations, however, lack some necessary ingredients to guarantee their responsible behavior. These regulations have a limited scope and cannot cover all possible outcomes. They are generally reactionary instead of being active; yet, they tell organizations what to do. Obeying these rules is the result of the fear of punishment not an inherent interest in ethics. Regulations like labor and social security code along with anticorruption regulations and rules to protect the environment etc. are among these legal obligations (Carol, 1979). Factors like competition in some industries and open economic atmosphere of Iran have drawn organizations' attention to their responsibility toward employees, clients and society in their profit-oriented activities.

Research Hypothesis

- There is a significant relationship between promoting corporate social responsibility in manufacturing, industrial and service units in East and West Azerbaijan provinces.
- There is a significant relationship between customers' mental image and corporate social responsibility in manufacturing, industrial and service units in East and West Azerbaijan provinces.
- There is a significant relationship between perceived quality of the customers and promoting corporate social responsibility in manufacturing, industrial and service units of East and West Azerbaijan Provinces of Iran.
- There is a significant relationship between the concept of brand and corporate social responsibility in manufacturing, industrial and service units of East and West Azerbaijan Provinces of Iran.
- There is a significant relationship between timely responsibility and corporate social responsibility in manufacturing, industrial and service units of East and West Azerbaijan Provinces of Iran.

Methodology

The present study is an applied research due to the analysis it makes on legal factors affecting corporate social responsibility in Iranian private companies. The statistical population of the study included 3011 managers of private companies in West Azerbaijan province of Iran from among which 340 managers were selected according to Krejcie and Morgan table and through unlimited or simple sampling. The independent variable in this study was the legal factors influencing corporate social responsibility in private organizations. The dependent variable on the other hand was the managers' viewpoint toward social responsibility measured through Likert scale. The main tool for collecting data was a questionnaire of technical questions concerning corporate social responsibility compiled after reviewing the related literature. In order to ensure validity of the questionnaire, expert views on social responsibility were collected from university professors along with corporate managers. The Reliability of the questionnaire was calculated by Alpha Cronbach test to be 0.972, which is considered acceptable for this study. Reliability is a measure that shows a questionnaire produces similar results under consistent conditions. The questionnaire was given to



private sector managers to be filled. Exploratory factor analysis technique was used to pursue purposes of the study and the data collected were analyzed via SPSS 22 computer application.

Findings

Based on findings of the study, the results of the descriptive section could be represented as follows:

Table 1. Descriptive indices of research variables

	index	mean	Standard deviation
Customers' loyalty	Observing safety rules and regulations for employees	4.12	0.68
	Considering regulations especially in case of interaction with suppliers	3.99	0.66
	Observing legal obligations of consumer rights	4.15	0.69
	The need for legal standards in case of society	4.22	0.66
	Commitment to environmental obligations	4.10	0.69

Source: Research Findings

In this study, in order to find out the legal factors affecting corporate social responsibility from the point of view of managers of private organizations in West Azerbaijan, all indices were put into factor analysis. In order to ensure decency of the data for factor analysis, Bartlett test and KMO index were utilized. Proper value for KMO index (0.912) approved of the decency of the questions for extracting factors. Furthermore, significance of the Bartlett test demonstrates the internal correlation between variables and the possibility of the formation of the set of variables. The number of factors was assigned via the factors with a value over one. Therefore, 5 factors were extracted covering an overall number of 44 variables. Extracted factors were named and then put into table 2 along with the special value, variance percentage and cumulative percentage variance.

Table 2. Factors extracted along with the special value, variance percentage and cumulative percentage variance

Factors	Special value	Variance percentage	Cumulative frequency
Observing safety rules and regulations for employees	14.525	17.287	17.287
Considering regulations especially in case of interaction with suppliers	1.913	8.091	60.531
Observing legal obligations of consumer rights	5.818	12.819	30.106
The need for legal standards in case of society	2.658	12.099	42.206
Commitment to environmental obligations	2.322	10.235	52.440

Source: Research Findings

According to the findings demonstrated in table 2, five extracted factors elaborated an overall 60.531 % of the variance. In this study, observing safety rules and regulations for employees with the special value of 14.525 clarified the overall variance of 17.287%. Variables with the fourth highest clarification of remaining variance (10.235%) is the commitment to environmental obligations. In this factor, the most important variable is the environmental management according to standards 2008 and 14001. Finally, the fifth factor is considering regulations especially in case of interaction with suppliers clarifying 8.091% of the remaining variance. The most



important variable here is evaluation of suppliers according to the rules of social responsibility. The loaded variables are represented in table 3 along with the factor load on them.

Conclusion

Legal responsibility includes observing local, national and international laws. Organizations have to perform their tasks in the framework of these general rules. The society passes the laws and all individuals and organizations have to observe them as a respectable social value. The legal aspect of social responsibility is also called social commitment and represent the fact that any business has to obey certain regulations for public interest. Since not all societies trust businesses to act properly, regulations are passed to control them. These regulations have in some cases guarantees for accountable performance. However, they have a limited range and could not therefore cover all possibilities. They are more of reactionary than proactive and remind businesses of what to do. Most of them are observed as a result of the fear of punishment; thus they are not voluntarily observed according to ethical internal beliefs. In short, findings from this study revealed that five factors of observing safety rules and regulations for employees, considering regulations especially in case of interaction with suppliers, observing legal obligations of consumer rights, the need for legal standards in case of society and commitment to environmental obligations clarified an overall 60.531% of the overall variance.

Commitment to safety standards for employees is a necessity for the development process of human resources. In order to reach this goal, employees are highly satisfied so that they could create value for their organization. One major condition for satisfaction is job security and one very important basis for job security is the safety and health in the workplace. In the present study, the factor “observing safety rules and regulations for employees” clarified 17.287% of the dependent variable variance. This finding concords with findings of Bahrami (2014) who demonstrated that the relationship between organizational efficiency and performance with social responsibility issues in an organization demonstrates the performance of processes and is significant and direct. Furthermore, according to Royayi and Mehrdoost (2009), there is a strong relationship between role of cultural managers in their economic, ethical, legal, social and environmental goals and promotion of social responsibility. Brammer et.al. (2007) stated that an organization’s social responsibility toward internal and external beneficiaries is of a positive nature. Moreover, findings from the present study confirms findings of Abdul H. et.al. (2014), Mousilis et.al. (2014), Bakos (2014), Windsor (2013), Hoyos (2013), Campbell (2012), Abolhasani Ranjbar et.al. (2013) and Ghorbanali Zadeh (2014). Therefore, it is suggested that creation of job satisfaction and mental health in employees through observing safety standards for them improves their relationship with clients and induces a positive feedback for the organization. Organizations aiming to survive and excel in national and international arenas have to have the continuous improvement principle in their minds and this could only be possible through improved performance. Continuous improvement of an organization’s performance creates a synergistic force through which their development program is supported and elevation opportunities are brought to life.

References

- Abdul H, Fathilatul Z, Ruhaya Atan M, Suhaimi M.2014. A Case Study of Corporate Social Responsibility by Malaysian Government Link Company, Social and Behavioral Sciences, 164: Pages 600–605.
- Abolhasani Ranjbar, A. Seyedi, H. Shakiba El. (2013). The role of financial managers in promoting social responsibility; a case study on financial controllers of headquarters in Tehran. The 2nd national conference on solutions for improving management, accounting and industrial engineering of Iran. Gachsaran: Islamic Azad University of Gachsaran



- Bahrami, A. (2014). The relationship between efficiency and organizational performance in environmental issues and social responsibility and financial profit; a case study in a car-manufacturing corporation. MA thesis. Tarbiat Modares University
- Bakos Levente)2014(, "Decision-making and Managerial Behaviour Regarding Corporate Social Responsibility in the Case of Small and Middle-sized Companies", Social and Behavioral Sciences, 124: 246–254.
- Bozorgi, F. (2004). Individual, organizational and social goals. Tadbir Journal. Vol. 144. May 2004. Tehran: Pp. 38-41
- Brammer S, Millington A, Rayton B. (2007), "The Contribution of Corporate Social Responsibility to Organizational Commitment", University of Bath, school of management, Working Paper Series: 20.
- Campbell B .2012. Corporate Social Responsibility and development in Africa: Redefining the roles and responsibilities of public and private actors in the mining sector, Resources Policy, (2)37: 138–143.
- Carroll, A. B. (1991). "The Pyramid of Corporate Social responsibility: Toward the Moral Management of Organizational Stakeholders. Business Horizons", 34, p. 39-48.
- Carroll, A. B. 1979. A Three-Dimensional Model of Corporate Performance. Academy of Management Review, 4[4], p. 497-505.



Optimizing Dividend Policy of Oil and Gas Companies Subject to Capital Structure

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Abstract

This article substantiates the necessity for improving approaches towards optimization of a dividend policy of oil and gas companies. Therefore, this research develops a new conceptual approach in the theory of corporate management aiming at substantiating the feasibility for considering a dividend structure factor of a company, while maximizing the company's market value. A quantitative measurement of the level of optimum dividend payouts that are differentiated according to the company's capital structure is an advantage of this approach. A functional dependence of the company's market value against the level of dividend payouts, with regard to the company's capital structure, has been presented. A range of quantitative levels of dividend payouts of oil and gas companies under consideration has been calculated, and a type of the optimum policy regarding the established company's capital structure has been determined, in accordance with such range. Such approach allows for substantiating the most effective type of the dividend policy subject to the financial condition of the company for maximizing its market value. It utilizes the subjectivity in the course of optimizing the company's dividend policy and ensures accurate evaluation of the optimum level of dividend payouts. It facilitates increasing efficiency of the net profit of oil and gas companies under consideration and building capacity of the market value of such companies.

Keywords: Dividend policy, Oil and gas companies, Market value, Capital structure

Introduction

A dividend policy is a key factor of a profit distribution mechanism for oil and gas companies, and, consequently, financial support of such companies. The strategic value of the industry predetermines the specificity of oil and gas companies usually issuing most liquid ordinary shares that are often referred as 'blue chips.' These securities are known for their high liquidity and they predetermine the environment and development trends of the global stock market. The high liquidity of the 'blue chip' securities is ensured by an ongoing payout of dividends to share holders, which predetermines exactly an increasing demand of securities of oil and gas companies¹. Given that the level of dividends paid out to the shareholders decreases the amount of profit (equity capital), which can potentially be re-invested, the dividend policy predetermines the financial condition of the companies and their financial stability prospects². Against the geopolitical crisis and global trend towards a fall in oil prices, a non-effective dividend policy may trigger a threat of disturbing the financial balance and decreasing market value of oil and gas companies, even with the target capital structure of such companies³. Moreover, considering that public revenue in certain countries comprises over 50% of receipts from the oil and gas industry⁴, optimization of the dividend policy with regard to the company's structure factor is of strategic value for establishing the resource base of such country. This determines the relevance and timeliness of this research.

Issues of dependence of the dividend policy, capital structure and market value of a company have been pictured by leading financial experts, such as F. Modigliani and M. Miller⁵. Scientists substantiated the theory of dividend irrelevancy, which was based on the statement that the value of a firm is determined exclusively by the ROA of

¹ Kaźmierska-Jóźwiak "Determinants of Dividend Policy: Evidence from Polish Listed Companies". *Procedia Economics and Finance*, 2015, Vol. 23, pp. 473-477

² Caliskan and Doukas "CEO risk preferences and dividend policy decisions". *Journal of Corporate Finance*, 2015, Vol. 35, December, pp.18-42

³ Al-Malkawi et al. "On the dividend smoothing, signaling and the global financial crisis". *Economic Modelling*, 2014, Vol. 42, pp. 159-165

⁴ Bloomberg, 2015. <http://www.wtcphila.org/uploads>

⁵ Modigliani and Miller "Taxes and the Cost of Capital: A Correction". *Ibid*, June, 1963, pp. 433-443



such firm. An investment policy and proportions of revenue distribution between the dividends and re-invested profit does not affect the total income of the shareholders. Consequently, there is not any optimum dividend policy as a factor in increasing the value of the firm. On the contrary, according to F. Modigliani and M. Miller, an investor relies primarily on the optimum capital structure of the firm that ensures further stable profit, instead of the amount of current dividend payouts. An anticipated profit and increased demand of the shares are the ones that determine the investor's behavior, and not the amount of current dividend payouts⁶.

We believe this theory to lack rationality in terms of issuer's functionality. As long as the market value and investment attractiveness, effective functioning and business activity of the issuer is predetermined to a great extent by the optimum ratio of the consumed and capitalized profit. The theory of optimizing the capital structure of a company as a growth factor of value of the company was the basis of scientific concepts of scientists, such as: Florackisa et al. (2015), Fairchild et al. (2014), Caliskan and Doukas, (2015), Aggarwal and Kyaw, N. (2010).

Followers of Gordon's and Lintner's theory of importance of dividend policy took up an attitude that was opposite to Modigliani-Miller's theory. They believed optimum dividend policy of a company to be achieved against maximization of shareholders' dividend payouts only. With no regard to a correlation between borrowed and equity capital of the firm, ongoing payout of dividends will still lead to maximization of the value of the company⁷. Such modern scientists, as Damodaran (2013), Karpavičius (2014), Mori and Ikeda (2015) and Zhou et al. (2015) supported this theory.

Meanwhile, according to the analysis, these scientists focus on the issue of increasing the market value of a firm by optimizing the capital structure, or, contrarily, active dividend policy. And, optimization of the dividend policy against the available capital structure as factor in increasing the value of the firm is of scientific interest for this research. Therefore, the objective of this research is developing an approach to determining a type of rational dividend policy by calculating the optimum level of dividend payouts as differentiated with respect to the capital structure of a firm as a qualitatively new measurement of the corporate management methodology. An analytical part of the conceptual approach has been presented through example of a number of international oil and gas companies.

Method

Securities are a top-priority investment field in the global financial environment. Despite the fact that global investment is rather differentiated with respect to world regions (see Figure 1), over 39% of the global monetary capital is invested in the securities⁸, among which approximately a fourth is shareholders' capital. Thus, global investment volume in shares is marked by a small amount of growth for the last ten years and steady domination in the global investment capital structure (see Figure 2).

Shares of oil and gas companies that are issued by most capitalized and financially stable companies are among highly profitable and least risky investment instruments in the world. The stability of dividend payouts by oil and gas companies ensures a stable demand of the shares and a high level of their liquidity, and, consequently, maximized the market value of the companies. As at 2014, the largest relative share of dividend payout - 3.7% and the highest level of market value of companies - 6.2% were taken solely by shares of oil and gas companies among 100 most capitalized companies of the world⁹.

⁶ Modigliani and Miller "The Cost of Capital, Corporation Finance and the Theory of Investment". American Economic Review, June, 1958, pp. 261-297

⁷ Damodaran "Investment evaluation. Tools and techniques of evaluating any assets". Moscow: Alpina Publisher, 2013, 1324 p

⁸ The Statistics Portal, 2015. <http://www.statista.com>

⁹ PwC, 2015. Global Top 100 Companies by market capitalization. www.pwc.com



Nevertheless, according to data against the geopolitical crisis, oil and gas companies became the most vulnerable spot of energy-dependable countries of the world¹⁰. A fall in world oil prices gave rise to a negative trend of the level of net profit of most companies in 2014 (see Figure 3), and approximately 50% in the industry on average¹¹.

These circumstances caused a decrease in the level of paid-out dividends of the companies, which, in its turn, lead to a significant decrease of their market value.

Figure 1 | Share of priorities of financial investing, broken down by world regions as at 2014 [%]¹²

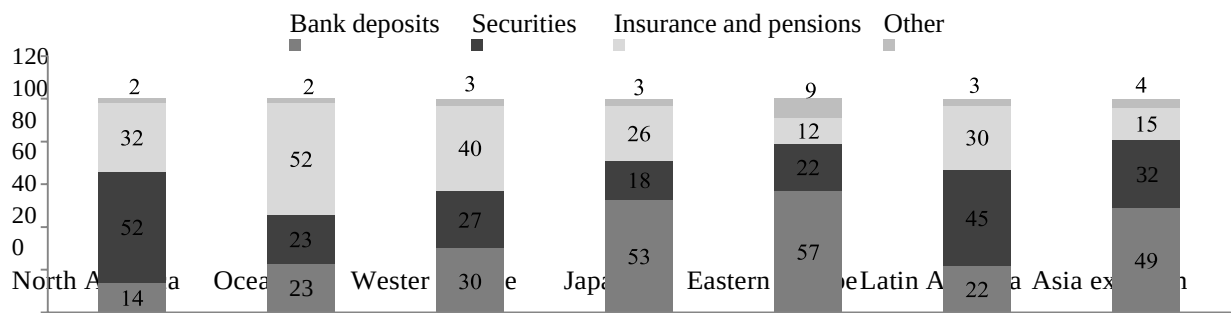


Figure 2 | Dynamic structure of financial assets of the global stock market [trillion USD]¹³

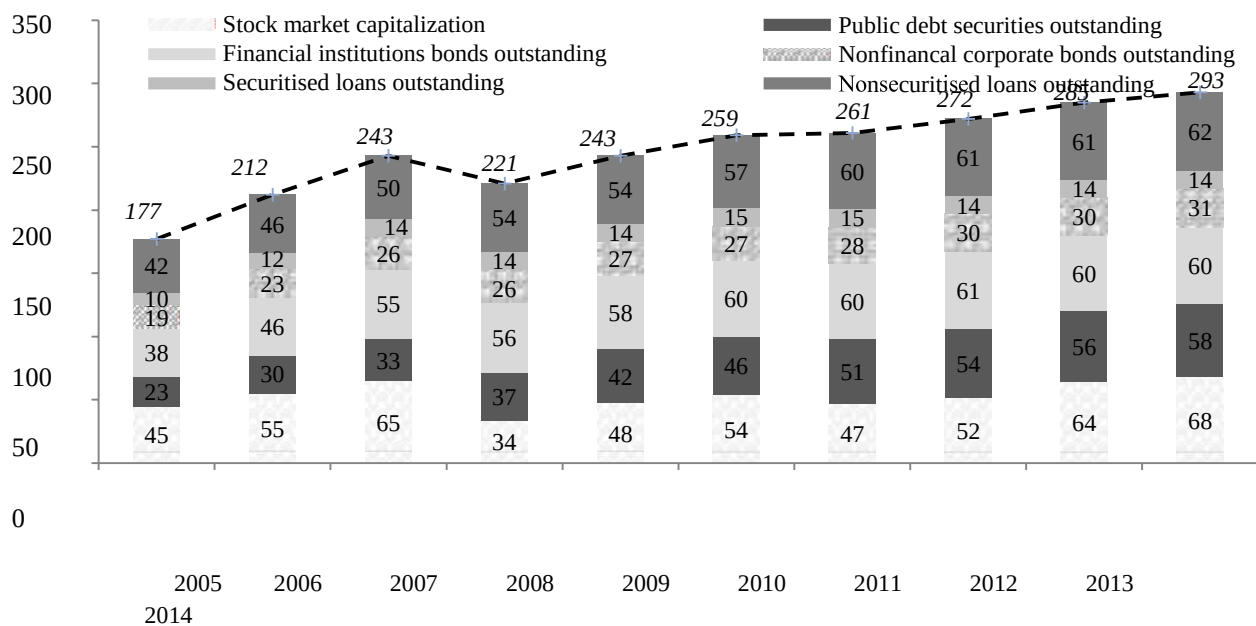


Figure 3 | Negative change of net profit of a number of oil and gas companies for 2013-2014¹⁴

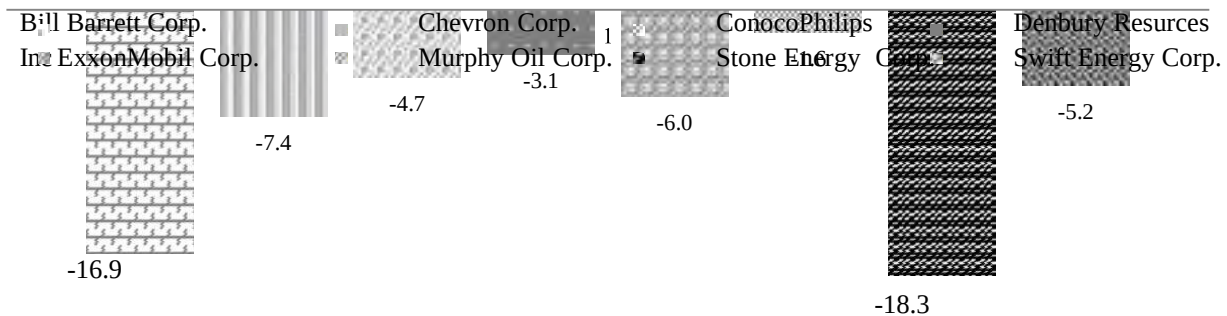
¹⁰ Bäuerle and Jaśkiewicz “Risk-sensitive dividend problems”, European Journal of Operational Research, 2015, Vol. 242, Is. 1, pp. 161-171

¹¹ Bloomberg, 2015. <http://www.wtcphila.org/uploads>

¹² Financial Markets, 2015. McKinsey Global Institute. <http://www.mckinsey.com/>

¹³ The Statistics Portal, 2015. <http://www.statista.com>

¹⁴ The Statistics Portal, 2015. <http://www.statista.com>



Such circumstances predetermine the necessity of search for solutions to optimize the dividend policy of the oil and gas companies with regard to the available capital structure for increasing their market value. Therefore, this research aims at developing an approach to quantitative determination of the optimum dividend level subject to the capital structure of a company.

The basis of the dividend policy of any company is maximizing its market value, with the dividend policy and capital structure being its factors¹⁵. As long as this article aims at optimizing the dividend policy with regard to the capital structure of a company, financial indicators, such as: equity-assets ratio as an indicator of the capital structure of the company; level of dividend payouts as an indicator of the volume of dividend payouts per share of the company; and average market capitalization of the company as an indicator of the effective dividend policy of the company have been taken as analytical indicators.

Financial statements of eight international oil and gas companies, such as: Bill Barrett Corporation; Chevron Corporation; Conoco Phillips Company; Denbury Resources Inc.; Exxon Mobil Corporation; Murphy Oil Corporation; Stone Energy Corporation; Swift Energy Company served as a statistical basis for this research. The choice of these companies is justified by the instability of payout of dividends on their own shares, but by the high ROE at the same time. In view of the recent trends, these companies are also marked by a decrease in the net profit and market value, which itself determines the necessity to raise efficiency of their dividend policy (see Annex 1).

The dependence of the market value of a company on the level of dividend payouts, with regard to the capital structure of the company, was built up, using a polynomial regressive model. This model is a type of non-linear modeling and appears to be the following¹⁶:

$$(x) = b_0 + b_1x_1^n + b_2x_1^{n-1} + \dots + b_ix_1 + b_{i+1}x_2^n + b_{i+2}x_2^{n-1} + \dots + b_jx_2 + \dots + b_mx_k, \quad (1)$$

where $f(x)$ – an n -power function of the polynomial regressive model;

$x_1, \dots$, - independent variables;

b_0 - a constant term;

$b_1, \dots, b_j, \dots, b_m$ - coefficients at independent variables; and

$1 < i < j < m$.

Parameters of the regression model are estimated, using a least square method. This method relies on fitting parameters of the model, with minimized sum of squared deviations of actual values of a dependent variable from the predicted values:

$$\sum_i (y_i - f_i(x))^2 \rightarrow \min, \quad (2)$$

¹⁵ Kaźmierska-Jóźwiak "Determinants of Dividend Policy: Evidence from Polish Listed Companies". *Procedia Economics and Finance*, 2015, Vol. 23, pp. 473-477

¹⁶ Nizametdinov and Rumiantsev "Data analysis". Moscow: NIYaU MIFI, 2012, 288 p.



where x - independent variables;
 y_i - actual value of a dependent value to the i -period;
 $f_i(x)$ - predicted value of a dependent value to the i -period; and
 $i = 1, 2, \dots, N$.

The range of values of dividend payouts of a company for determining a corresponding type of the dividend policy was determined, using a multidimensional scaling method according to the Fibonacci's Law. This approach implies a proportional division of a section of data values in parts in the following proportion¹⁷:

$$\begin{cases} a:b = b:c \\ c = a + b, \\ a < b < c \end{cases} \quad (3)$$

where a – length of a smaller section;
 b - length of a larger section; and
 c - length of the whole section.

According to the presented proportions, changes of data levels occur in ratio of $38.2\% \times 61.8\%$. Then, indicator level value ranges are determined by a system:

$$\begin{cases} x_{min} \leq x \leq x_1 \\ x_1 < x \leq x_2 \\ x_2 < x \leq x_{max} \\ x_1 = x_{min} + 0.38(x_{max} - x_{min}) \\ x_2 = x_{min} + 0.62(x_{max} - x_{min}) \end{cases} \quad (4)$$

where $x_{min} \leq x \leq x_1$ – a range of low values of x indicator;
 $x_1 < x \leq x_2$ – a range of medium values of x indicator; and
 $x_2 < x \leq x_{max}$ – a range of high values of x indicator.

In order to confirm data about the level of dividend payouts of oil and gas companies, which were obtained by means of the polynomial regression modeling, neural modeling technologies were applied.

An artificial neural network is a mathematic model, featuring a system of simple processors (artificial neurons) and interconnections between them that are defined by weighing coefficients¹⁸.

A neural network of a multi-layer perceptron type consists of the following:

- 1) a layer of input neurons that receive and encode a signal from the external environment;
- 2) a layer of interneurons that constitute the basis of neural networks and serve as the medium for necessary transformations of a modeled system; and
- 3) a layer of output neurons with their output values to present effects of the neural network.

Principle of operation of the artificial neuron is as follows. The neuron receives input signals that pass through a connection (synapse) with their intensity corresponding to the synaptic activity of the neuron. The current state of the neuron is determined by a post- synaptic potential function, which is calculated as a weighted total of inputs with regard to the threshold value. The post-synaptic system is linear for the multi-layer perceptron neural network.

$$net_j = w_0 + \sum_{i=1}^N x_i w_{ij} \quad (5)$$

where net_j – a post-synaptic function;
 w_0 - the threshold value of the function;

¹⁷ Vorobiev "The Fibonacci's sequence". Moscow: Nauka, Fizmatlit, 1978, 144 p.

¹⁸ Borovikov "Neural networks. STATISTICA Neural Networks: Methodology and technologies of modern data analysis". Moscow: Goriachaia linia – Telekom, 2008, 392 p.



x_i – an input signal of the i -th neuron;

w_{ij} - weight of the synaptic connection between the i -th neuron and the j -th neuron;

and $i, j = 1, 2, \dots, N$.

Obtained value of the PSP-function is transformed via an output signal activation function:

$$y_j = f(\text{net}_j), \quad (6)$$

where y_j – an output signal; and

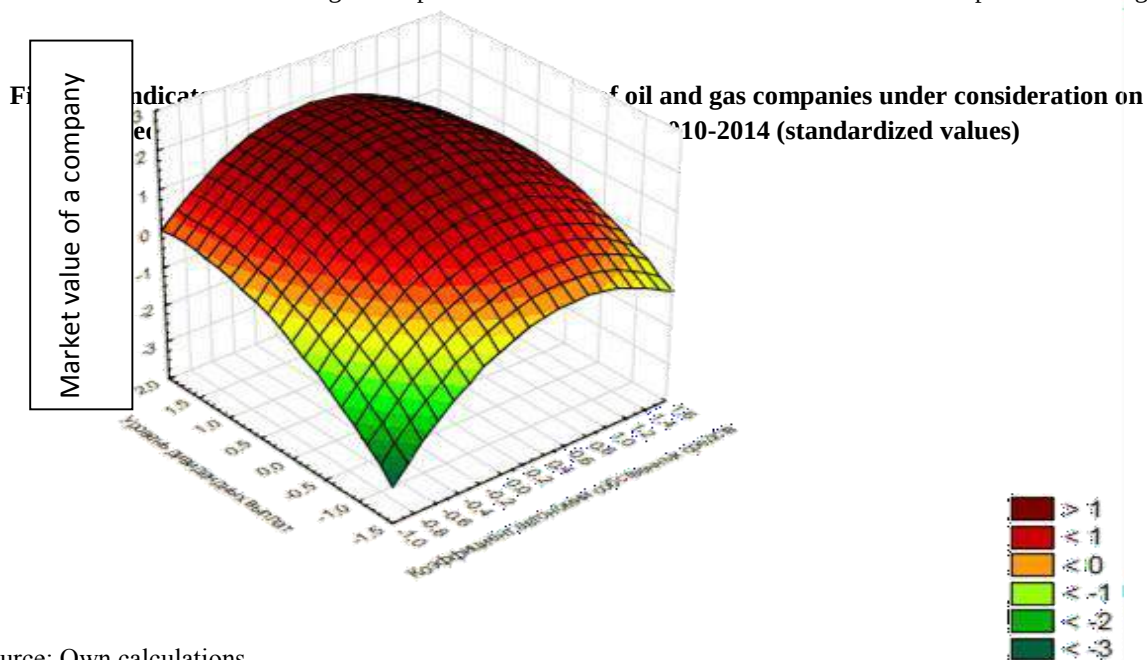
$f(\text{net}_j)$ - an activation function.

Liner, logistic, hyperbolic, exponential, sine, piecewise linear or step function is used in neural networks, depending on the nature of interaction between the neurons.

Results

1. Modeling dependence of the market value of a company on the level of dividend payouts and capital structure

The efficiency of dividend policy depends on the capital structure and financial capabilities of a company, which predefined the market value of the company¹⁹. Therefore, a polynomial regression model of the market value of a company that reflects the dependence of firm's capitalization on the level of dividend payouts, subordinate to the capital structure has been developed. An average annual capitalization of oil and gas companies under consideration is a dependent variable, and the level of dividend payouts and equity-assets ratio for 2010-2014 are dependent variables. As long as statistical indicators are expressed in different units of measurement (Annex 1), data have been priorly standardized for developing the model. Visualization of dependencies of standardized variables of international oil and gas companies under consideration for 2010-2014 has been presented in Figure 4.



Source: Own calculations

The dependence of the market value of a company on the level of dividend payouts with regard to the capital

¹⁹ Bäuerle and Jaśkiewicz "Risk-sensitive dividend problems", European Journal of Operational Research, 2015, Vol. 242, Is. 1, pp. 161-171; Mori and Ikeda "Majority support of shareholders, monitoring incentive, and dividend policy". Journal of Corporate Finance, 2015, Vol. 30, pp. 1-10



structure was revealed in the research using linear modeling. Model coefficients have been determined according to an error level minimization criterion (p-level) and comparison of actual values of the Student's t-test (see Table 1).

Table 1 - Indicators of statistical significance of a model of dependence of market value of a company on the level of dividend layout, with regard to the differentiated capital structure

Model coefficients	t-value	p-level
b0	-2.34	0.0098
b1	2.54	0.0073
b2	3.01	0.0018
b3	-4.03	0.0003
b4	-3.96	0.0004
b5	-2.11	0.0256
b6	2.73	0.0039
b7	-3.58	0.0006
b8	-4.01	0.0003
b9	4.13	0.0002
b10	4.86	0.0000

Source: Own calculations

Based on the obtained model coefficients, the 5-power polynomial has been determined to be the model of highest statistical significance.

$$b0 * Rea + b1 * Rea^4 + b2 * Rea^3 + b3 * Rea^2 + b4 * Rea + b5 * Ldp^5 + b6 * Ldp^4 + b7 * Ldp^3 + b8 * Ldp^2 + b9 * Ldp + b10 \quad (7)$$

Thus and so, the polynomial regression model of market value of Russian oil and gas companies that represents the dependence of capitalization of a company on the level of dividend payouts, with regard to the differentiated capital structure (equation 1) appears to be the following:

$$f = -0.3387 * Rea^5 + 0.2427 * Rea^4 + 1.1955 * Rea^3 - 0.8716 * Rea^2 - 0.4322 * Rea - 0.1069 * Ldp^5 + 0.6058 * Ldp^4 - 0.6178 * Ldp^3 - 1.0598 * Ldp + 1.2974 * Ldp + 0.2990 \quad (8)$$

where f – a function of dependence of market value of a company on the level of dividend payouts and capital structure;

Rea - a standardized value of an equity-assets ratio that defines the capital structure of a company;

Ldp - a standardized value of a level of dividend payouts of a company.

As long as any value of the p-level does not exceed 0.05 for all model coefficients, and calculated value of the t-test does not exceed the table value in modulus (2.08), one can speak of adequacy of the model that has been developed within this research.

2. Determining optimum level of dividend payouts subject to the capital structure of a company against maximization of its value

The target of optimization of the dividend policy of a company is determination of such a level of dividend payouts to minimize the market value of the company, as has been pointed out many times before. Therefore, an optimization model for the market value of Russian oil and gas companies that reflects the dependence of capitalization of the firm on the level of dividend payouts and capital structure has been presented in the following way:

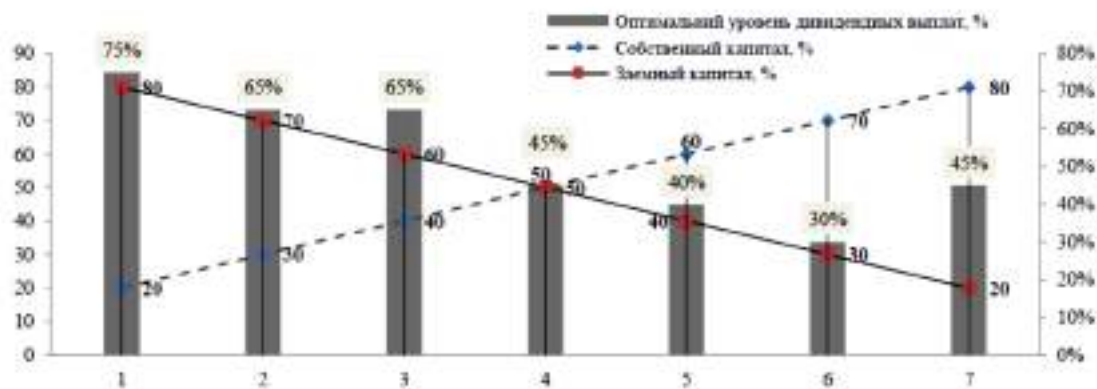
$$f(Rea; Ldp) = -0,3387 * Rea^5 + 0,2427 * Rea^4 + 1,1955 * Rea^3 - 0,8716 * Rea^2 - 0,4322 * Rea - 0,1069 *$$



$$Ldp^5 + 0,6058 * Ldp^4 - 0,6178 * Ldp^3 - 1,0598 * Ldp^2 + 1,2974 * Ldp + 0,2990 \quad (9)$$

While solving the optimization task, based on the developed model and by means of differentiating the capital structure of a company (equity-assets ratio), a level of dividend payouts has been calculated with the model go to infinity, i.e. the market value of the companies go to the maximum value (see Figure 5). For differentiating the capital structure, traditional levels of the correlation between borrowed and equity capital (20/80, 30/70, 40/60, 50/50, 60/40, 70/30, 80/20) have been taken, with regard to maximum and minimum values for international oil and gas companies under consideration for 2010- 2014.

Figure 5 | Optimum level of dividend payouts subject to capital structure of a company against maximization of market value of the company



Optimum level of dividend payouts [%]

Equity capital [%]

Borrowed capital

Source: Own calculations

3. Determining optimum type of dividend policy of a company, with regard to the differentiated capital structure

Calculation data obtained on the optimum level of dividend payouts of oil and gas companies under consideration that are differentiated according to the capital structure, were the basis for determining the optimum type of dividend policy of the companies. To determine quantitative levels of various types of dividend policy within the research, the Fibonacci's Law was applied. The level of dividend payouts (coefficient) is specified as a value in the range of [0;1]. Based on the Fibonacci sequence, three ranges of levels of dividend layouts (see Equation 3; 4) that correspond to the determined type of dividend policy of the company (conservative, moderate, aggressive) have been calculated (see Table 2).

Table 2 - Quantitative criteria of a type of dividend policy subject to the level of dividend payouts of a company

Range of values of level of dividend payouts	Type of dividend policy
[0; 0.38]	Conservative
[0.39; 0.62]	Moderate
[0.63; 1]	Aggressive

Source: Own calculations

Conservative dividend policy is a type of dividend policy with primary satisfaction of investment needs of a



company, and dividends are paid out in a minimum stable amount or according to the residual principle²⁰.

Compromise (moderate) dividend policy is a kind of dividend policy providing for a stable level of dividend payout, including a premium at certain periods. This policy is most associated with the financial performance of the company and the level of satisfaction of investment needs of the company²¹.

Aggressive dividend policy is a kind of dividend policy, providing for a stable level of dividend payout, including an 'aggressive' premium at certain periods for market stock 'promoting' of the company. This policy is least associated with the financial performance of the company²².

Based on the quantitative criteria of a type of dividend policy subject to the level of dividend payouts of a company, types of optimum dividend company have been determined in accordance with the capital structure of the company.

Table 3 - Optimum type of dividend policy subject to capital structure of a company

	Capital structure						
	20/80	30/70	40/60	50/50	60/40	70/30	80/20
Type of dividend policy	Aggressive	Aggressive	Aggressive	Moderate	Moderate	Conservative	Moderate

Source: Own calculations

In order to verify the reliability of research findings for optimizing the dividend policy of international oil and gas companies under consideration, neural network technologies were used. It has been justified in the process of study, using Statistica SW, that a multi- layer perceptron neural network is optimum for modeling an effective dividend policy of a company. This model is the one that exhibits the lowest levels of learning, control and test errors, as compared to neural networks of other types.

Table 4 - Statistical specification of a neural network for determining optimum dividend policy of oil and gas companies under consideration subject to capital structure

Architecture	Learning error	Control error	Test error
MP 2:2-29-7-1:1	0.020880	0.036725	0.050123

Source: Own calculations

Low error levels are indicative of the adequacy of the statistical solution with regard to the selected model of a neural network. Visualization of determination of the optimum dividend policy of oil and gas companies under consideration subject to the capital structure and using the neural network has been presented in Figure 6.

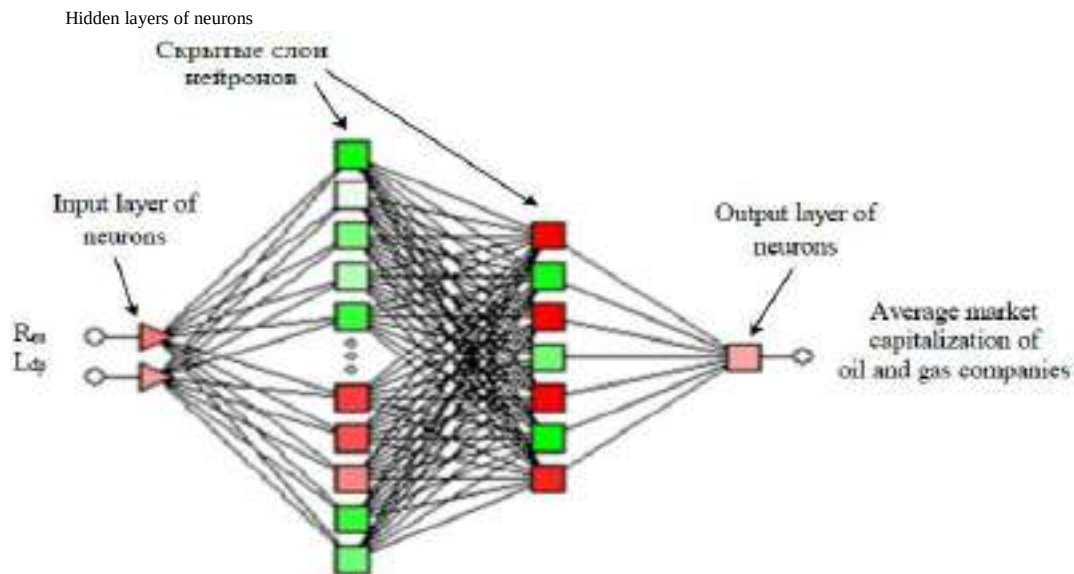
²⁰ Akyildirim, E. et al. "Optimal dividend policy with random interest rates". Journal of Mathematical Economics, 2014, Vol. 51, pp. 93-101

²¹ Florackisa et al. "Dividend policy, managerial ownership and debt financing: A non-parametric perspective", European Journal of Operational Research, 2015, Vol. 241, Is. 3, pp. 783-795

²² Ro, 2014. Credit suisse: This Is What the World Stock Market Will Look Like in 2030



Figure 6 | Neural network for determining optimum dividend policy of oil and gas companies under consideration subject to capital structure



Source: Own calculations

The optimum level of dividend payouts and type of company's dividend policy is determined, using a multi-layer perceptron neural network for each capital configuration (see Equations 5; 6).

Table 5 - Determining the type of optimum dividend policy structure of oil and gas companies under consideration subject to the capital structure and based on neural networks

Indicator	Capital structure (correlation between borrowed and equity capital)						
	20/80	30/70	40/60	50/50	60/40	70/30	80/20
Level of dividend payouts [%]	73%	68%	64%	48%	41%	35%	47%
Type of dividend policy	Aggressive	Aggressive	Aggressive	Moderate	Moderate	Conservative	Moderate

Source: Own calculations

Based on findings of the optimum level of dividend payouts subject to the capital structure of a company, which were obtained by means of non-linear modeling and application of neural networks, one can point out almost 100% match in the level of dividend payouts. This confirms the accuracy and precision of data that were obtained throughout the research.

Thus, one may state that oil and gas companies under consideration must maintain the following proportions of the level of dividend payouts, for optimization of the dividend policy:

for the capital structure with the share of equity financial resources no more than 20%, the level of dividend payouts must not exceed 73-75% of the net profit;

with an increase in the equity financial resources from 30% to 40% in the capital structure of the company, the level of dividend payouts should constitute 64% to 68% of the net profit; if equity financial resources of the



company are available in the amount of 50% in the capital structure, the level of dividend payouts must not exceed 45% to 49% of the net profit;
under the conditions of exceedance of equity vs. attracted financial resources in the capital structure within 60%, the target volume of dividend payouts must be 41% of the net profit;
with 70% of the equity capital in the capital structure of a company, the optimum level of dividend payouts is 30% to 35% of the net profit of the company; and
with 80% of the equity capital of the total volume of financial resources of the company, the level of dividend payouts must not exceed 45 to 47%.

Compliance with the proposed ratios of the level of dividend payouts and correlation between the equity and attracted capital of oil and gas companies under consideration will facilitate growth of their investment attractiveness and market value.

Conclusions

Thus, the approach that has been developed within this research is a brand new concept in the paradigm of corporate management. A distinct advantage of this approach is its practical importance, as long as such approach allows for the most accurate determination of the optimum type of dividend policy of oil and gas companies. As opposed to the methods that were presented in theory, this original approach relies on determining the quantitative optimum level of dividend payouts of a company subject to the available capital structure. In its turn, this allows for substantiating the type of optimum corporate policy that corresponds most closely to the current financial condition of the company. The adequacy of using polynomial modeling technologies and neural networks for determining the optimum dividend policy proves the accuracy of research findings, which is indicative of the practical importance and value of the developed approach. It facilitates obtaining objective and reliable data regarding the optimization of dividend policy of oil and gas companies under consideration. It utilizes the subjectivity and pragmatism of qualitative approaches to maximizing the market value of a company.

The conceptual approach to determining the optimum level of dividend policy of companies that has been developed throughout the research is the basis for improving theoretical and methodological grounds of corporative management. It is described by the simplicity and versatility of its application, as long as it is not limited by regional and industrial attachment of the company. It facilitated justified determination of priorities of dividend payouts, capital structure proportions and development of an effective strategy to maximize the market value of companies against the unstable functionality of the global economy.

References

- Borovikov, V. (2008). Neural networks. STATISTICA Neural Networks: Methodology and technologies of modern data analysis. Moscow: Goriachaia linia – Telekom, 392 p.
- Vorobiev, N.N. (1978). The Fibonacci's sequence. Moscow: Nauka, Fizmatlit, 144 p.
- Damodaran, A. (2013). Investment evaluation. Tools and techniques of evaluating any assets. Moscow: Alpina Publisher, 1324 p.
- Nizametdinov, Sh.U., Rumiantsev, V.P. (2012). Data analysis. Moscow: NIYaU MIFI, 288 p.
- Yakhiaeva, G.E. (2006). Fuzzy sets and neural networks. Moscow: Binom, 351 p.
- Aggarwal, R., Kyaw, N. (2010). "Capital structure, dividend policy, and multinationality: Theory versus empirical evidence". International Review of Financial Analysis, Vol. 19, Is. 2, pp. 140-150.
- Akyildirim, E. et al. (2014). "Optimal dividend policy with random interest rates". Journal of Mathematical Economics (Vol. 51, pp. 93-101).
- Al-Malkawi, H.N., Bhatti, M., Magableh, S. (2014). "On the dividend smoothing, signaling and the global financial crisis". Economic Modelling, Vol. 42, pp. 159-165.
- Bäuerle, N., Jaśkiewicz, A. (2015). "Risk-sensitive dividend problems", European Journal of Operational



- Research, Vol. 242, Is. 1, pp. 161-171.
- Bill Barrett Corporation. (2015). <http://www.billbarrettcorp.com/>.
- Bloomberg.(2015). <http://www.wtcphila.org/uploads>.
- Brandmeir, K., Grimm, M., Heise, M., Holzhausen, A. (2015). Allianz Global Wealth Report 2015. Economic Research. Allianz SE. 121 p.
- Caliskan, D., Doukas, J. (2015). "CEO risk preferences and dividend policy decisions". Journal of Corporate Finance, Vol. 35, December, pp. 18-42.
- Chevron Corporation. (2015). <https://www.chevron.com>. ConocoPhillips Company. (2015). <http://www.conocophillips.com>. Denbury Resources Inc. (2015). <http://www.denbury.com/>.
- Exxon Mobil Corporation. (2015). <http://corporate.exxonmobil.com/>.
- Fairchild, R., Guney, Y., Thanatawee, Y. (2014). "Corporate dividend policy in Thailand: Theory and evidence", International Review of Financial Analysis, Vol. 31, pp. 129- 151.
- Financial Markets. (2015). McKinsey Global Institute. <http://www.mckinsey.com/>
- Florackisa, C., Kanasb, A., Kostakis, A. (2015). "Dividend policy, managerial ownership and debt financing: A non-parametric perspective", European Journal of Operational Research, Vol. 241, Is. 3, pp. 783-795.
- Karpavičius, S. (2014). "Dividends: Relevance, rigidity, and signaling". Journal of Corporate Finance, Vol. 25, pp. 289-312.
- Kaźmierska-Jóźwiak, B. (2015). "Determinants of Dividend Policy: Evidence from Polish Listed Companies". Procedia Economics and Finance, Vol. 23, pp. 473-477.
- Modigliani, F., Miller, M.H. (1958). "The Cost of Capital, Corporation Finance and the Theory of Investment". American Economic Review, June, pp. 261-297.
- Modigliani, F., Miller, M.H. (1963). "Taxes and the Cost of Capital: A Correction". Ibid, June, pp. 433-443.
- Mori, N., Ikeda, N. (2015). "Majority support of shareholders, monitoring incentive, and dividend policy". Journal of Corporate Finance (Vol. 30, pp. 1-10).
- PwC. (2015). Global Top 100 Companies by market capitalization. www.pwc.com
- Ro, S. (2014). Credit suisse: This Is What the World Stock Market Will Look Like in 2030.
- Stone Energy Corporation. (2015). <http://www.stoneenergy.com>.
- Swift Energy Company. (2015). <http://www.swiftenergy.com>.
- The Statistics Portal.(2015). <http://www.statista.com>.
- Zhou, Z., Xiao, H., Deng, Y. (2015). "Markov-dependent risk model with multi-layer dividend strategy". Applied Mathematics and Computation, Vol. 252, pp. 273-286.



ANNEX 1

TableA1 - Financial indicators of business activity of international oil and gas companies under consideration

Indicators	Bill Barrett Corporation					Chevron Corporation				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Equity-assets ratio	0.5597	0.4534	0.4122	0.4223	0.4587	0.5727	0.5833	0.5916	0.5928	0.5871
Dividend payout level (ratio)	0.1759	0.1622	0	0	0	0.2980	0.2282	0.2615	0.3488	0.4123
Median market capitalization [bln. USD]	1.88	1.85	0.97	1.35	0.58	225.68	265.01	271.41	306.92	280.47
Indicators	ConocoPhillips Company					Denbury Resources Inc.				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Equity-assets ratio	0.4422	0.4291	0.4134	0.4446	0.4485	0.4833	0.4719	0.4592	0.4497	0.4481
Dividend payout level (ratio)	0.2799	0.2920	0.3900	0.3634	0.5126	0	0	0.1121	0	0.1374
Median market capitalization [bln. USD]	102.26	102.51	74.19	90.46	88.31	7.45	6.81	6.35	6.18	5.59
Indicators	Exxon Mobil Corporation					Murphy Oil Corporation				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Equity-assets ratio	0.5047	0.4856	0.5143	0.5204	0.5181	0.5761	0.6209	0.5103	0.4909	0.5121
Dividend payout level (ratio)	0.2791	0.2194	0.2248	0.3337	0.3555	0.2542	0.2450	0.2355	0.2104	0.2634
Median market capitalization [bln. USD]	359.98	417.02	418.23	410.61	408.20	14.69	11.06	12.03	12.52	9.26
Indicators	Stone Energy Corporation					Swift Energy Company				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Equity-assets ratio	0.2563	0.3084	0.3141	0.2987	0.3649	0.5064	0.4507	0.4256	0.3948	0.3655
Dividend payout level (ratio)	0.1975	0.2189	0.1182	0.2464	0	0	0	0	0.1111	0
Median market capitalization [bln. USD]	1.13	1.44	1.05	1.02	1.02	1.63	1.38	0.73	0.58	0.21

Source: Bill Barrett Corporation, 2015; Chevron Corporation, 2015; ConocoPhillips Company, 2015; Denbury Resources Inc., 2015; Exxon Mobil Corporation, 2015; Murphy Oil Corporation, 2015; Stone Energy Corporation, 2015; Swift Energy Company, 2015; Own research



Compliance of supply and demand on specialty in the context of the personalization of education.

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Abstract

The article suggests the solution methods based on the fuzzy situational model of demand and proposal, taking into account the scientific potential, social and physical characteristics of the applicants in the process of placement in the universities, and the fuzzy similarity of situations for the intelligent management of their adaptation. For this, first of all, fuzzy situational models of supply and demand for applicants are compiled. Then shows the methods for recognizing fictitious images of supply and demand. Fuzzy access rate is determined for the real situation to etalon situation. Possible scenarios of the process of identifying more suitable couples by the degree of similarity of the pair “specialties - applicants” are being investigated. In a multicriteria decision, the comparison matrix is set based on the characteristics of the Saati matrix and the relative importance coefficient of indicators are calculated. Similarity indicators are determined by setting the “convolution” of each indicator. The highest degree of similarity is considered the best solution. The solution algorithm is presented.

Keywords: individual education trajectory, fuzzy situational model, Saati matrix, fuzzy inclusive rate, recognition of images.

Introduction

Demands that are enhanced day by day in the labor market lead to the rapid changes in the need for the staff. On the other hand, the knowledge and skills of each graduate have to be adapted to the demands of the dynamic and changing labor market. In this case, it may be more appropriate to organize short-term qualification courses in accordance with the current requirements of the society rather than predicting the qualifications to be required in next 4-5 years. Given the diversity and multiplicity of the demands for the qualified cadres and the skills offered in the labor market, which forms and operates under uncertainty, the application of intellectual methods and technologies for adapting these indicators can provide more effective results. This, in turn, necessitates the issue of personalization of education. The personalization of education refers to the process of choosing a curriculum appropriate to the knowledge and abilities of each individual (learner) (“drawing” an individual education trajectory) to fully meet the requirements for the chosen specialty and education. From this point of view, first of all, supply and demand for the learners to be trained through at e-university [Mammadova, M.H., Gasimov, H.A. (2017)] environment through the individual education trajectories should be adapted. In



this regard, the labor market should be viewed as an indefinite intellectual environment [Mammadova, M.H., Jabrayilova, Z.G., Mammadzada, F.R. (2015)]. In this case, the habits, skills and initial knowledge are taken as the basis to achieve the result [Zadeh, L.A. (1976), Mammadova, M.G. (1997), Melikhov A.N., Bernstein L.S., Korovin S.Ya. (1990)].

Situation model of supply and demand for learners

If the professions trained at e-university are conditionally denoted by "P", then the demands for professions can be described as follows:

$P = \{P_1, P_2, \dots, P_d\}$ or $P = \{P_b\}, b = \overline{1, d}$ denote a set of professions;

$V = \{v_1, v_2, \dots, v_y\}$ or $V = \{v_z\}, z = \overline{1, y}$ is a set of personal characteristics that must have a learner,

i.e., the candidate to be trained on the profession; $F = \{f_1, f_2, \dots, f_r\}$ or $F = \{f_o\}, o = \overline{1, r}$ is a set of competences that must have the candidate ambitious for the profession; $E = \{e_1, e_2, \dots, e_x\}$ or $E = \{e_t\}, t = \overline{1, x}$ is the initial knowledge that the applicant should have on separate subjects and topics.

Thus, the demand model $P = (V, F, E)$ for each profession is represented by three matrices: $P_V = \|v_{bz}\|_{dy}, P_F = \|f_{bo}\|_{dr}, P_E = \|e_{bt}\|_{dx}$. Here, each row $b = \overline{1, d}$ of P_b characterizes the separate professions provided by e-university, and the columns (v_{dy}, f_{dr}, e_{dx}) represents the ever-expanding base of personal characteristics, competences and initial knowledge. The elements v_{dy}, f_{dr} are the level of individual indicators required to be trained in a particular profession, e_{dx} is the level of knowledge on separate subjects required for a specific profession. Compliance of the student's knowledge with the specialty is determined by the neural network. The provision of the indicators v_{dy}, f_{dr} and e_{dx} of the profession $P_b(b = \overline{1, d})$ is determined by the following fuzzy set membership function:

$$\mu_{v_{bz}}(P_b): P \times V \rightarrow [0, 1], \mu_{f_{bo}}(P_b): P \times C \rightarrow [0, 1], \mu_{e_{bt}}(P_b): P \times E \rightarrow [0, 1] \quad (1)$$

and represents the membership rate required by e-university on selected professions for separate indicators.

If the applicants eligible for any specialty of e-university are denoted by "A", then a set of applicants will be conditionally shown as $A = \{A_1, A_2, \dots, A_s\}$ or $A = \{A_h\}, h = \overline{1, s}$. Thus, $V = \{v_z\}, z = \overline{1, y}$ is a set of personal features of the applicant who wants to study on the specialty, $F = \{f_o\}, o = \overline{1, r}$ is a set of open competences of the applicant on the specialty, and $E = \{e_t\}, t = \overline{1, x}$ is a set of indicators of initial knowledge level of the learner on separate subjects and topics.



In this case, the supply model $A = (V, F, E)$ is also represented by three matrices: $A_V = \|v_{hz}\|_{sy}, A_F = \|f_{ho}\|_{sr}, A_E = \|e_{ht}\|_{sx}$. Here, each row $h = \overline{1, s}$ of A_h describes separate applicants on selected specialty, while the columns (v_y, f_r, e_x) represents the constantly expanding database of personal features, competences and initial knowledge of applicants. The elements V_{hy}, f_{hr} denote the possession rate of indicators that the applicants should have to be trained on specific occupation, whereas e_{hx} is the level of knowledge required for specific subjects. The possession rate of the specific student A_h in the personal features $(h = \overline{1, s})$ V , competence F and knowledge E on subjects is determined by the following membership function:

$$\mu_{v_{hz}}(A_h): A \times V \rightarrow [0,1], \mu_{f_{ho}}(A_h): A \times C \rightarrow [0,1], \mu_{e_{ht}}(A_h): A \times E \rightarrow [0,1] \quad (2)$$

The process of applicants' placement on the specialties is a set of two fuzzy situations describing the situation of demand $\tilde{P}_b$ and supply $\tilde{A}_h$:

$$\tilde{P}_b = \{ \langle \mu_{v_{bz}}(P_b) \rangle, \langle \mu_{f_{bo}}(P_b) \rangle, \langle \mu_{e_{bt}}(P_b) \rangle \} = \{ \mu_{P_b}(y) / y \} \quad (3)$$

$$\tilde{A}_h = \{ \langle \mu_{v_{hz}}(A_h) \rangle, \langle \mu_{f_{ho}}(A_h) \rangle, \langle \mu_{e_{ht}}(A_h) \rangle \} = \{ \mu_{A_h}(y) / y \} \quad (4)$$

Here, $\tilde{P}_b = \{ \mu_{P_b}(y) / y \}, b = \overline{1, d}$ are the fuzzy reference situations or sought fuzzy images of demand required by e-university on specialties, while $\tilde{A}_h = \{ \mu_{A_h}(y) / y \}, h = \overline{1, s}$ is a set of real situations that the applicant experienced, that is, the sought fuzzy images of supply. In this case, the purpose of the proposed methods is to recognize the similarities between the fuzzy image of each real supply and the fuzzy reference images of demand by comparing them for the intelligent management of the compliance of supply and demand in the process of placement of applicants on the specializations, and to identify the most similar pair.

Recognition of fuzzy images of supply and demand for learners

Accordingly, the statement and goal of the decision-making issues related to the compliance of supply and demand is to determine the similarity of two fuzzy situations and to manage the situations using the proximity metrics. The determination of the degree of fuzzy inclusion of fuzzy situation $\tilde{A}_h$ to the fuzzy situation $\tilde{P}_b$ and the determination of the degree of fuzzy equation $\tilde{A}_h$ and $\tilde{P}_b$ may be used as the evaluation method of similarity between the random real situation and the corresponding reference situation; [Mammadova M.G.,(1997)]:

1. The degree of fuzzy inclusion $\theta(\tilde{A}_h, \tilde{P}_b)$ of fuzzy situation $\tilde{A}_h$ to the fuzzy situation $\tilde{P}_b$ is defined as follows:

$$\theta(\tilde{A}_h, \tilde{P}_b) = \&\theta(\mu_{A_h}(y), \mu_{P_b}(y)) = \&\left(\max_{y \in Y} (1 - \mu_{A_h}(y), \mu_{P_b}(y)) \right) = \min(\max(1 - \mu_{A_h}(y), \mu_{P_b}(y))) \quad (5)$$



If the degree of fuzzy inclusion of fuzzy situation $\tilde{A}_h$ to the fuzzy situation $\tilde{P}_b$ is not less than the fuzzy inclusion limit ψ accepted according to the management requirement, that is $\theta(\tilde{A}_h, \tilde{P}_b) \geq \psi$, then, situation $\tilde{A}_h$ is fuzzy included to the situation $\tilde{P}_b$, that is $(\tilde{A}_h \subseteq \tilde{P}_b)$. More precisely, if the fuzzy value of the indicators of the situation $\tilde{A}_h$ are fuzzy included to the value of the indicator of the situation $\tilde{P}_b$, then, the situation $\tilde{A}_h$ is fuzzy included to the situation $\tilde{P}_b$.

For decision making, each alternative situation from the set of specialties, which the learner applied to, is compared with the degree of inclusion of the specialty (the specialties from the set of specialties) to the reference images. According to the following expression, the most compatible specialty is selected as the search result:

$$\max[\min(\max(1 - \mu A_h(y), \mu P_b(y)))] , h = \overline{1, s}, b = \overline{1, d}$$

2. The degree of fuzzy equivalence as the metrics of the similarity degree the two random fuzzy situations is defined as follows. Assume that the fuzzy equivalence limit ψ of the two situations is defined, and if there are situations that are mutually included into each other, that is $\tilde{A}_h \subseteq \tilde{P}_b$ and $\tilde{P}_b \subseteq \tilde{A}_h, h = \overline{1, s}, b = \overline{1, d}, h \neq b$, then, the situations $\tilde{A}_h$ and $\tilde{P}_b$ are considered to be approximately equal. The degree of similarity, called fuzzy equation of situations, is calculated based on the following expression:

$$\begin{aligned} \mu(\tilde{A}_h, \tilde{P}_b) &= \vee(\tilde{A}_h, \tilde{P}_b) \vee (\tilde{P}_b, \tilde{A}_h) = \& \mu(\mu A_h(y), \mu P_b(y)) = \\ &= \min_{y \in Y} [\min(\max(1 - \mu A_h(y), \mu P_b(y)), \max(\mu A_h(y), 1 - \mu P_b(y)))] \end{aligned} \quad (6)$$

If $\mu(\tilde{A}_h, \tilde{P}_b) \geq \psi$ when they are included into the assigned limit ψ , and then the situations $\tilde{A}_h$ and $\tilde{P}_b$ are considered to be fuzzy equal, that is, $\tilde{A}_h \approx \tilde{P}_b$.

Management methods of compliance of supply and demand for learners on possible scenarios

As a result of the process of recognition of more compatible pairs "specialty - learner" according to their similarity degree in the set of the real images of learners and the reference survey images, several possible scenarios may be revealed:

1. One learner (student) claims to study on one specialty.

In this case, the decision is made related to the compliance of the learner with the specialty, if the fuzzy similarity degree of the two situations (the reference image of the specialty and the real image of the learner) is not less than the limit assigned by e-university.

2. Several learners claim to study on one specialty according to the similarity degree of two fuzzy situations. In this case, the learners generate a sub-set of fuzzy alternatives out of which the most compatible applicants should be chosen.



In this case, e-university may make decision in the process of placement of the applicants by the specialties following the methods proposed below:

2.1. The similarity degrees of reference and real situations are compared by the criteria characterizing the applicants who are eligible for specialties, and decisions related to the most compatible situations are made.

2.2. Decision-making is brought to the multicriteria selection issue to select better alternatives, taking into account the relative importance factors of the criteria characterizing the applicants.

In this case, the decision-making process is performed on the stages proposed below:

At the first stage the situations that do not provide the fuzzy inclusion or equivalence limit are “eliminated”, i.e., the corresponding applicants do not take part at the next stage.

At the second stage, the relative importance coefficients of criteria and indicators are determined [Saaty, T.L. (1993)]. In this regard, Saaty table and a comparison matrix is set in accordance with the diagonal, symmetrical and transitivity features of the matrix. The relative importance coefficients are calculated using one of the four approaches proposed in [Saaty, T.L. (1993)].

The maximum specific value $\lambda_{\max}$ of the matrix and the Consistency Index (CI)- and the Consistency ratio (CR) are calculated to verify whether the expressions of the e-university, which represent pair comparison of indicators, contradict or not, and to detect these contradictions. Based on the method of multiplying the matrix by vector, a rough estimation of consistency is used [Saaty, T.L. (1993)]. By multiplying the comparison matrix by the obtained decision vector (relative importance ratios), a new vector is obtained. Consequently, dividing the first component of obtained vector by the first component of the decision vector, and respectively, the second component by the second component of the decision vector, and so on, a further vector is obtained. $\lambda_{\max}$ (maximum or key specific value) is obtained by the division of the sum of the components of this vector by the total number of components. The closer the value of $\lambda_{\max}$ to n , the more the issue is deemed to be agreed. Deviation from the consistency is called the Consistency Index (CI) and this limit is defined by formula:

$$CI = (\lambda_{\max} - n) / (n - 1) \quad (7)$$

The division of the consistency index of the matrix by the Random Consistency (RC) allows defining Consistency Relation (CR):

$$CR = CI / RC \quad (8)$$

According to [Saaty, T.L. (1993)], for $n = 3$, Random Consistency is $RC = 0,58$; for $n = 4$, Random Consistency is $RC = 0,90$; for $n = 5$, Random Consistency is $RC = 1,12$; for $n = 6$, Random Consistency is $RC = 1,24$, and so on. If $CR \leq 0,1$, consistency limit is considered to be acceptable, otherwise, the values of reference images should be viewed again.

At the third stage, the fuzzy similarity degree of the fuzzy real situation with the reference situation is defined based on the aggregation of indicators [Neuman, D., Morgenshtern, O. (1970)]. This is performed in the following steps.

3.1. By setting the "wrap" of the indicators $v_1, v_2, \dots, v_y$, the fuzzy similarity degree of the fuzzy real situations $A = \{A_h\}, h = \overline{1, s}$ with the fuzzy reference situations $P = \{P_b\}, b = \overline{1, d}$ in accordance with V is determined:



$$\mu_V(A_h) = \sum_{z=1}^y w_z \mu_{v_z}(A_h). \quad (9)$$

3.2. By setting the "wrap" of the indicators $f_1, f_2, \dots, f_r$, the fuzzy similarity degree of the fuzzy real situations $A = \{A_h\}, h = \overline{1, s}$ with the fuzzy reference situations $P = \{P_b\}, b = \overline{1, d}$ in accordance with F is determined:

$$\mu_F(A_h) = \sum_{o=1}^r w_o \mu_{f_o}(A_h). \quad (10)$$

3.3. By setting the "wrap" of the indicators $e_1, e_2, \dots, e_x$, the fuzzy similarity degree of the fuzzy real situations $A = \{A_h\}, h = \overline{1, s}$ with the fuzzy reference situations $P = \{P_b\}, b = \overline{1, d}$ in accordance with E is determined:

$$\mu_E(A_h) = \sum_{t=1}^x w_t \mu_{e_t}(A_h). \quad (11)$$

3.4. Based on the results obtained and the relative importance ratios w_v, w_f, w_u of the criteria W, F, E , the similarity degree of fuzzy real situations with the reference situations are defined:

$$\mu_P(A_h) = \omega_V \cdot \mu_V(A_h) + \omega_F \cdot \mu_F(A_h) + \omega_E \cdot \mu_E(A_h) \quad (12)$$

3.5. The fuzzy real situation with the highest value is selected:

$$\mu(A^*) = \max \{ \mu_d(A_b), b = \overline{1, y} \} \quad (13)$$

The selected fuzzy real situation is the sought image of the applicant with the highest degree of similarity and can be considered as the best decision.

Conclusion

The method proposed in this paper is one of the decision support methods for the training of high-quality cadres for the knowledge-based economy in the process of placement of learners at e-universities through the compliance of supply and demand. This issue can be solved through: verbal analysis of results [Larichev, O.I. (2006)] and decision methods in fuzzy conditions [Bellman, R., Zadeh, L.A. (1970)], considering the importance and insignificance of indicators on occupational qualifications [Mammadova, M.H., Jabrailova, Z.Q., Mammadzada, F.R. (2016)]; bringing to collective decision making [Bellman, R., Zadeh, L.A. (1970)]; bringing to the issue of multi-criteria decision-making taking into account the combination of different conditions [Mammadova, M.H., Mammadzadeh, F.R. (2012)]. The dynamics of the individual characteristics required for each specialty, diversity of specialization, distribution of qualified personnel in different areas, belonging to different age categories and other similar factors may be considered as the main condition of support. In addition to all of this, since the human resource is a key indicator of competitiveness in the knowledge society, the modern e-universities should adapt the contingent of their students to the dynamic and growing demands of the society.



References

- Zadeh L.A. The concept of a linguistic variable and its application to the approximate decision making, Moscow: Mir, 1976, 168 p.
- Mammadova M.G., Decision making based on knowledge base with fuzzy relational structure, Baku: ELM, 1997, 296 p. (Mamedova M.G. Prinyatie reshenij na osnove baz znaniy s nechetkoj relyacionnoj strukturoj. - Baku, Elm, 1997)
- Melikhov A.N., Bernstein L.S., Korovin S.Ya. Situational counseling systems with fuzzy logic, M.: Nauka, 1990, 272 p.
- Mammadova M.H., Gasimov H.A., “E-university: conceptual, technological and architectural approaches”, Problems of information technology, 2017, no. 2, pp. 51–62. DOI: 10.25045/jpit.v08.i2.06
- Mammadova M.H., Jabrayilova Z.G., Mammadzada F.R. [Managing the IT labor market in conditions of fuzzy information](https://link.springer.com/article/10.3103/S0146411615020030) // Automatic Control and Computer Sciences, 2015, vol.49, no.2, pp.88-93 [https://link.springer.com/article/ 10.3103 /S0146411615020030](https://link.springer.com/article/10.3103/S0146411615020030)
- Mammadova M.H. , Mammadzadeh F.R., “Formation of supply and demand for IT Specialists on the base of competency model”, Proc. of the IV IEEE International Conference Problems of Cybernetics and Informatics (PCI-2012), 2012, sept.12-14, Baku, 2012, vol.IV, pp. 199–201. www.pci2012.science.az/8/12.pdf
- Saaty T.L. Making decisions. The method of analyzing hierarchies, M.: Radio and communication, 1993, 320 p.
- Neuman D., Morgenshtern O. Game Theory and Economic Behavior. M.: Nauka, 1970, 708 p.
- Larichev O.I. Verbal analysis of decisions. M.: Nauka, 2006, 181 p.
- Bellman R., Zadeh L.A. Decision- making in fuzzy environment // Management Science, 1970, vol.17, pp.141–164.
- Mammadova M.H., Jabrailova Z.Q., Mammadzada F.R. Fuzzy Multi-scenario Approach to Decision-Making Support in Human Resource Management. In book: L.A. Zadeh et al. (eds.), Recent Developments and New Direction in Soft-Computing Foundations and Applications, Studies in Fuzziness and Soft Computing, Springer International Publishing Switzerland 2016, vol.342, pp.19–36. DOI 10.1007/978-3-319-32229-2_3



MEASURES OF SUSTAINABLE DEVELOPMENT AND REGULATION OF THE TRANSNATIONAL BUSINESS IN COUNTRY LEVEL

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Abstract

The present study presents the importance of sustainable development and regulation of the transnational business of Azerbaijan. As known, Azerbaijan is an oil country and 14 transnational companies of 9 biggest corporations in the world made investment in the oil producing and extractive industries only in Azerbaijan. In general, about 65% of the investments made in the economy of Azerbaijan is held by the foreign transnational companies. Study of the problems in regulation of transnational business and sustainable development of the economy in such a country is an urgent and important issue. Though formation of the transnational business is based on the general principles, this process happens in a specific form in various countries. Transnational business differs in different countries depending on the structure of economy, the level of socio-economic development, organizational-administrative structure, national-ethnic properties and development level of a state.

The article studies the account of trade operations with the world countries, the payment balance of the country and competitiveness index and the business environment to assess the current state of transnational business in Azerbaijan. Special weight index of export in GDP, special weight index of import in GDP, special weight index of the foreign trade turnover of the Republic in GDP, amount index of field export in total value of export and structural specialization index of an industrial field have been calculated to assess the transnational business state in field level and the deviations have been found based on the selected methodology and recommendations made on sustainable development of the transnational business.

Keywords: Sustainable development, transnational business, regulation, import, export, foreign trade, Azerbaijan, oil-gas

Introduction

The transnational business differs depending on the socio-economic, organizational-administrative structure, national-ethnic properties and the development level of a state in various fields. And here various theoretical-methodological approaches and interpretation of transnational business appear. They also necessitate transformation of the transnational business in a particular region, its organizational-management system, legislative base and production potential to a subject of research. Decrease in foreign investment at the country level and increase in capital flows from the country are regulated at government level. For this purpose, regulation of transnational business on field is very important. For the first time, we have dealt with study of sustainable development and regulation of the transnational business in Azerbaijan. All these abovementioned provided a reason for the present article written.

Although the studies dedicated to the theory and practical problems of the transnational business are carried out, the problems of action mechanism and characteristics of transnational structures in new environment in today's theory has not



been sufficiently studied. Long-term, sustainable solutions in transboundary business regulation in the global economy remain the subject of dispute.

Method

Methods and approaches. The economic theories of the classics, the researches conducted by the modern western and local scientists in the sphere of regulation of the transnational business and transnational companies in integration processes and various legal documents adopted by the Republic Government in accordance with the subject of the study and regulatory acts are used in development of the present article. The collection of research methods has been used to determine the various parameters of transnational business and the criteria of transnational companies.

Probability of contribution to be made by the article to the world economic science. The author thinks that the results obtained from the research materials used in the article and scientific polemics, the made offers are of a certain scientific-practical importance and may fall within the interest of the world economists in the next researches and studies and the materials in the article may be useful.

1. Level of problem study and summary of literature

The international transnational business has become the most dynamic and mass part of the globalization process in the recent years, and as a result, the interest in the transnational business especially has increased. The western scientists have actively conducted studies on the transnational business and its regulation problems. In the recent years, the local scientists have had very interesting researches on the transnational business and transnational companies. However the theoretical-methodological principles of regulation of the transnational business in Azerbaijan have not been processed up to now and no systematical and complex research conducted. The key functions of the national business consist of distribution and mobilization of capital accumulated among the national markets, regions and corporations, formation of the market price of individual financial instruments under impact of demand and supply, reduction of costs of financial transactions, speeding up of centralization and concentration of very obvious capital in merge and coverage of commercial and investment banks, as well as exchange (Micholap S.V., 2014). The transnational business of the country is dependent on the international economic integration level.

Sustainable development and regulation of transnational business is carried out in three levels: international, national and regional level (Fomicheva N.V.2011). If we summarize the regulation methods used in the world practice, they can be divided into the following groups. (Tarasova L.N., 2015)

- the first group is addressed to strengthening and maintaining the competition opportunities in the transnational economy: in micro level – within anti-monopoly legislation; in macro economy level – within anti-inflation;
- the second group regulation directions are addressed to various fields and household sphere;
- the third group is addressed to the actions on impact of the properties of the transnational companies on the stimulating function of incomes.

The objectivity of the transnational legal regulation of the transnational business is conditioned by development of the transnational business between legal entities from various countries as a result of increase of the system of interdependence and interaction of the national economies (Gerchikova I.N.,2002). The issues regarding regulation of the transnational business in the modern time have been studied by the scientists in the sphere of multiple economy and legal system. S.V.Shaguri and P.D.Shimkomay be listed among them. These scientists comprehensively highlighted all the processes of regulation of the transnational business activity. (S.V.Shagurin, Shimko P.D. 2008.)

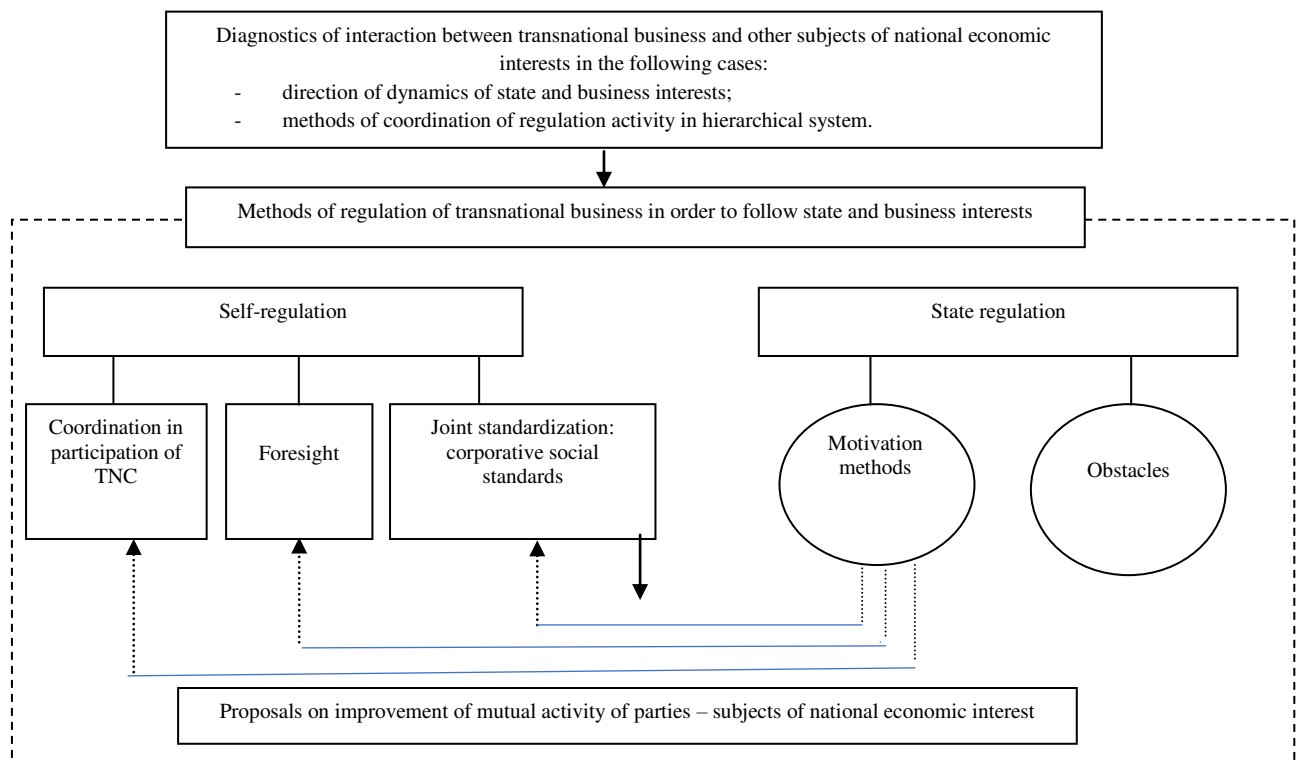
However the result of the multiple conducted discussions is that the code of conduct of transnational business remained un-adopted. In spite of this, a number of regulatory documents were adopted in the said term (Shay O., 2011). Underdevelopment of normative-legal regulation of the transnational business activity defines the perspective directions of state policy in relation to the transnational business in a number of countries, including Azerbaijan (Antonov Y.V., 2011). Opening of national economy by stage and relatively deepening of mutual activity of national and world economy, including participation of the transnational structures in this process, require a state to form new approaches to develop institutionalization of state regulation of transnational business activity in the conditions where globalization trends strengthen (Tarasova L.N., 2013).



So, absence of a free common legal model of transnational business is due to many reasons. The famous western scientist K.Waylert connected the main reasons with the following approach that the key actors of transnational business are transnational companies, and they are oriented towards their economic interests and are available in the industrially developed countries, bypassing the legal standards. Later on, K.Waylert notes that transnational companies are not entirely outside the national legal system. However in the present time, finally, the legal norms that not necessarily dependent on a state, which link the transnational corporations at the level of universal international law, do not take their place completely. Instead, the state will soon oversee fulfillment of the obligations of transnational companies under the international law (Waylert K., 2015). This process can be shown as a block diagram of the key directions of provision of realization of the economic interests of the state in the process of transnationalization of production (see Figure 1) (Bondarenko V.A., 2012). Foresight has focused on synergetic effects from joint research in perspective development in the process of transition to a new level of regulation, according to its features.

While interstate politics are indirectly related to domestic politics, it is conceptually different from it. Transnational interrelations here are not taken into account or sufficiently assessed (Kredich T.V., 2010). The actor of the transnationalization is the accumulation of all the advantages of various economic systems of TNC in the manufacturing process and the competitive internal resources of transnational entrepreneurship (Kostoyantsev A.E., 2014).

Figure 1. Block-scheme of main directions of provision of business and state interests in sustainable development of the transnational business



In creation of foreign branches, the US transnational companies pursue their purpose to expand their sales markets, to increase export volumes, to supply raw materials, to acquire unique technologies, to increase productivity etc. (Rodchenko V.V., 2015). It should be noted that at present, the globalization process has a significant impact on change of the regulatory system of transnational business. There is a need for a new definition of "transnational regulation". Such result arises from the fact that there is a need to regulate the world economy not only internationally, but also nationally. This approach arises from the characteristics of globalization that can be attributed to the following. Proportion of authorizations has a great role in



transnational business strategy (Surma I.V., 2011). It is necessary to study the content of authorizations in transnational companies in two levels: global and regional.

Presently, as a property of strategic choice of transnational business, rise of business for modern transnational business in crisis is more interesting than growth of revenues (Kolpashnikov I.M., 2016). It should be noted that in many cases, as D. Aaker rightly stated, competition can be significantly weaker or not entirely enough to provide an ordinary level of impetuous income, which enables a stronger position in the market, too (Aaker D., 2007). There is a regulating method for regulation of transnational business in 3 levels: country, area, company level (Kostoyantsev A.E. 2014).

But the study in the present article is conducted on regulation of transnational business only in the level of area. Area indicators of transnational business are reflected in foreign trade, first of all. These indicators are defined on international division of labour and international specialization of production in the economic literature. It is necessary to comply with the principal features in calculation of the indicators (L.E.Strovskogo, 2001). Estimations have been made using the International Division of Labor (IDL) and the level of international specialization level (Batmanova E.S., Tomilov P.S., 2005).

1. Regulation of transnational business in Azerbaijan in area level

Foreign trade turnover in **Azerbaijan** reached 39.4 billion Dollars in 2014 from 33.2 billion Dollars in 2010. But the foreign trade turnover in the following years dropped to 21.7 billion Dollars in 2016. The decline in 2016 has been driven by exports and imports (Table 1). However the decline was mainly due to exports. Thus, the export decreased 17.1 billion Dollars and the import 656 billion Dollars in 2016 in comparison with the year 2014. The decline in exports led to a decrease in export oil price by up to 3 times and this caused devaluation of the national currency in 2015.

In 2008, Azerbaijan succeeded to export the products of 2.8 thousand names.

Table 1. Foreign trade turnover of Azerbaijan (mil. USD)

Years	Trade turnover	Import	Export	Balance	Relation to previous year, %		
					Trade turnover	Import	Export
2010	33 161	6 601	26561	19 96	106,5	105,0	106,9
2014	39408	9188	30220	21032	95,7	85,4	99
2015	25810	9217	16592	7375	99,5	99,5	100,1
2016	21651	8532	13118	4586	92,7	90,1	94,5
2017	22593,6	8782,0	13811,6	5029,6	80,0	83,0	77,6
2017 % 2010	90,1	118	83	-	-	-	-

Source: The table “Azerbaijan in numbers”, 2018, “Statistic indicators in Azerbaijan”, 2018 has been compiled based on the estimations of the applicant under the data of SSCAR. The growth rates are provided with comparative prices.

The analysis of the indicators reflecting the level of regulation of the transnational business on area shows that modernization of the industrial base of the transnational business is required in order to ensure its sustainable development. I think, improvement of regulation of the transnational foreign trade will allow growing the effectiveness of the transnational business. The relative indicators calculated as a result of the study of the process of regulation of the transnational business on area level are summarized in the following table (Table 2). As seen from the table, the special weight of export in GDP in 2014 is close to the international normative indicator. But this indicator was 38% in 2017. As seen from the results obtained from estimations, all the received indicators are according to the international norm indicators.

Table 2. Indicators of regulation of transnational business in Azerbaijan

T5Estimated index	Characteristics of indicator (international norm)	Indicators for the Azerbaijan Republic			
		2014	2015	2016	2017
Special weight of export in GDP	Up to 30-40%	40,2	31,5	34,6	38
Special weight of import in GDP	Not exceeding 20%	12,2	17,4	22,4	21,6
Special weight of foreign trade turnover of the Republic in GDP	60-70%	52,4	48,7	57	59,6
Special weight of area export in total value of export	High rate of coefficient denotes better international qualification of an area.	93,4	88,1	36,5	46,5



Source: “Azerbaijan in numbers” 2018 was made by the applicant under the report of the State Statistics Committee.

Thus, the deeper study of effectiveness of sustainable development and regulation of transnational business on area requires further processing of the obtained results on their modeling.

Assessment of parameters of the production function of Kobb Douglas was conducted using of the method of small squares upon correct appearance of various indicators.

The official statistic indicators in the years 2010-2017 and the above-mentioned indices are used in the estimations: foreign trade index, index of special weight of export, index of special weight of import, index of structural qualification of industrial fields and relative area qualification index.

The results of the estimations made on modeling of indices of foreign trade in Azerbaijan in the years 2010-2017 are provided in the Table 7. As seen from the table, the parameters of the model, more precisely, the determination coefficient I sufficiently different from the index units. Especially, the determination coefficient of export on special weight was 0.111, the determination coefficient of import on special weight 0.034, the determination coefficient of the quota of foreign trade 0.335, the determination coefficient of area export in total value 0.806, the determination coefficient of export quota 0.299, the determination coefficient of structural qualification of industrial area 0.073 and the relative determination coefficient of area qualification 1.642.

Table 3. Model parameters used in indices of foreign trade

	Modeled index units	2005	2017	2005-2017	Model parameters (determination coefficient)
1	Index of export quota	0.328	0,216	0,112	0,111
2	Index of import quota	0.318	0,174	0,144	0,034
3	Index of foreign trade quota	0.650	0,487	0,173	0,335
4	Amount of area export in total value of export	0.928	0,865	0,063	0,806
		2009	2017	2009-2017	
5	Index of export quota of area production	0.639	0,880	0,144	0,706
6	Structural qualification index of industrial area	0.100	0,384	0,284	0,073
7	Relative qualification of area	2,796	2,065	0,732	0,351

Source: The table was produced under the estimation by the applicant.

As seen from the Table No. 7, the export quota ranged from 0.328 to 0.112 in the years 2010-2017 (Appendix 1). But the indicator obtained as a result of estimation is 0.111. So, this indicator conform to the parameter of the model (determination coefficient). The import quota factually changed from 0.318 to 0.144, i.e., decreased, however it is sufficiently higher than the indicator (0.034) obtained as a result of the calculation. The index of the foreign trade quota changed from 0.650 to 0.487 and our calculated determination coefficient is 0.335. Amount of the area export in total value of export changed from 0.928 to 0.865. And the determination coefficient obtained as a result of the calculation is 0.806. Deviation is much less. The index of structural qualification of the industrial field (2010-2017) is not considered effective, as the index of relative qualification of area (2010-2017) is more different than the calculation indicator. The calculation and graphs are provided in the Appendix. 1.

The international practice shows that the restrictions in flow of goods and services between countries should be decreased for the purpose of development of transnational business, agreements should be reached between the countries in economic-legal policy, international cooperation and qualification should be deepened in science and techniques and production under the progressive forms of joint financing of economy and its innovation elements, development of regulatory common acts and standards and application of program-oriented regulation in mutual development of managing bodies of integration processes are required.

Our studies show that there are favorable real resources for sustainable development of the transnational business in Azerbaijan. Among them, we can show high transnational socio-economic development potential of the Republic, its turning to transport-transit center among the European-Asian countries, establishment of modern system of information communication technology, development of internal trade, creation of free economic zone etc.



Conclusion

The results obtained from the materials provided on the problems in the Article, the analysis made on the selected methods and author's approaches:

- thus, the analysis of indicators reflecting the level of regulation of the transnational business in area level shows that modification of the industrial base of the transnational business is required to ensure effective development of it. I think, effective regulation of the foreign trade of the Republic with the obtained results will allow improving the effectiveness of the transnational business.

A number of offers have been prepared by us to regulate the transnational business in Azerbaijan:

1. It is necessary to limit import of process aimed natural resources to the Republic, Restriction or export quota should be placed on these resources. That is, placement of a great part of production should be allowed.
2. It is necessary to set production limit on the product volume in order to decrease the company turnover. High regulation should be applied.
3. It is needed to establish joint ventures to solve the problem of transfer of technologies or to found joint companies to produce end product in joint equal right with the local research institute.
4. It is necessary to use of the tax legislative norm to fight against transfer prices. If the contractual prices differ 20% than the market price, a market price should be applied. The said practice is applied in Russia.
5. It is important to prepare exact criteria of establishment of joint ventures in Azerbaijan.
6. It should be taken measures to keep import in a certain proportion with the amount of export of national products.
7. It is necessary to determine the economic fields where operation of foreign companies is impossible and to make restriction on them.
8. Presence of the Azerbaijan citizens in management of TNC branches should be placed as a condition.
9. It is necessary to upgrade the rules of licensing of operation of branches of foreign companies in Azerbaijan.
10. It is important to establish a special non-political investment union. This union should keep control over involvement of foreign investments, and limit investments made in the fields of strategic importance for the country with the guarantee of the Ministry of Economic Development.

The President of the Azerbaijan Republic, IlhamAliyev said in the session of the Cabinet of Ministers dedicated to the finals of socio-economic development of the first half of the year 2018: "Transparency should be ensured in economic and financial sectors. This transparency will allow greater foreign investment to be made to our non-oil sector. Because the main reason for absence of foreign investment to this sector in sufficient level is a non-transparent situation" ("Iqtisadiyyat" Newspaper, 29. 04. 2018).

References

1. Антонов Я.В. Формирование государственной политики в сфере регулирования деятельности ТНК. М.: // Управление общественными и экономическими системами. № 1. 2011.
2. Батманова Е.С., Томилов П.С. (2005) Мировая экономика и международные экономические отношения. Москва, ГОУ ВПО УГТУ-УПИ. Стр. 2 из 111. .
3. Бондаренко В.А. и др.(2012) Маркетинговая деятельность в условиях глобализации. Москва. ЦКБ «Биб-ком». 260 с.
4. Вайлерт К. Транснациональные копорации вне правового поля. / www.dpp.mpil.de/01.2012/
5. Внешнеэкономическая деятельность предприятия. Под ред. Л.Е.Стровского. М.:ЮНИТИ. 2001, - 823 с.
6. Герчикова И.Н. Международные экономические организации. М.: Консалтбанкир. 2002, - 624 с.
7. Колпашиников И.М. Приоритеты разработки стратегии развития ТНК в современной экономике. /www.racn.info/files/26.pdf
8. Костоянцев А.Е. Особенности государственного регулирования процесса современной
9. Михолап С.В. Способы и формы выхода рынков в условиях нарастания процессов глобализации / www.media.miu.by/files/store/items/eiup/14/eiu/



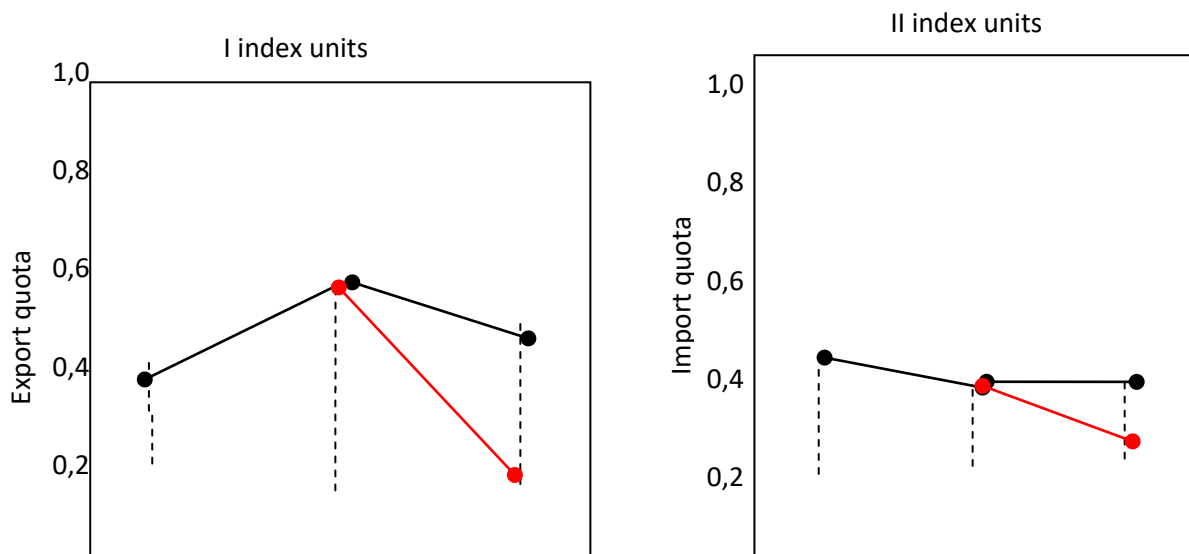
10. Родченко В.В. Менеджмент американских транснациональных компаний. / www.studentbooks.com.ua/content/view/1014/42/14/
11. Фомичева Н.В. Международная торговля. Донецк: ДонНУ. 2001, - 160с.
12. Сурма И.В. Проблемы соотношения компетенций в современных корпоративных стратегиях ТНК. // ГУ Электронный вестник. В. 28. 2011.
13. Уэбстер Фредерик. Основы промышленного маркетинга. Пер. с англ. М.: Гребенников. 2005, - 416 с.
14. Шай О. Организация рынков. Теория и практика. Пер. с англ. М.: ГУ-ВШЭ. 2011. - 496 с.
15. Bakan, Joel, 2004. The Corporation: The Pathological Pursuit of Profit and Power. New York: Free Press.
16. Shagurin S.V., Shimko P.D. The economy of the transnational enterprise. St. Petersburg State Polytechnic University. 2008, - 335 P.
17. Menkyu N.G. Principles of economics. Saint Petersburg.: Piter Kom. 2009, - 784 p.
18. Rugman, Alan M, 2005. The Regional Multinationals: MNEs and "Global" Strategic Management. Cambridge,
19. Hausmann, Ricardo and Dani Rodrik (2003). "Economic development as self-discovery". Journal of Development Economics, 72, pp. 603-633.
20. SOCAR //Annual report, 2018
21. "Iqtisadiyyat" Newspaper, 29. 04. 2018
22. www.stat.gov.az [The State Statistical Committee of the Republic of Azerbaijan](http://www.stat.gov.az)
23. [www.weforum.org/docs/The Global Competitiveness Report 2014–2015 - weforu](http://www.weforum.org/docs/The%20Global%20Competitiveness%20Report%202014-2015)

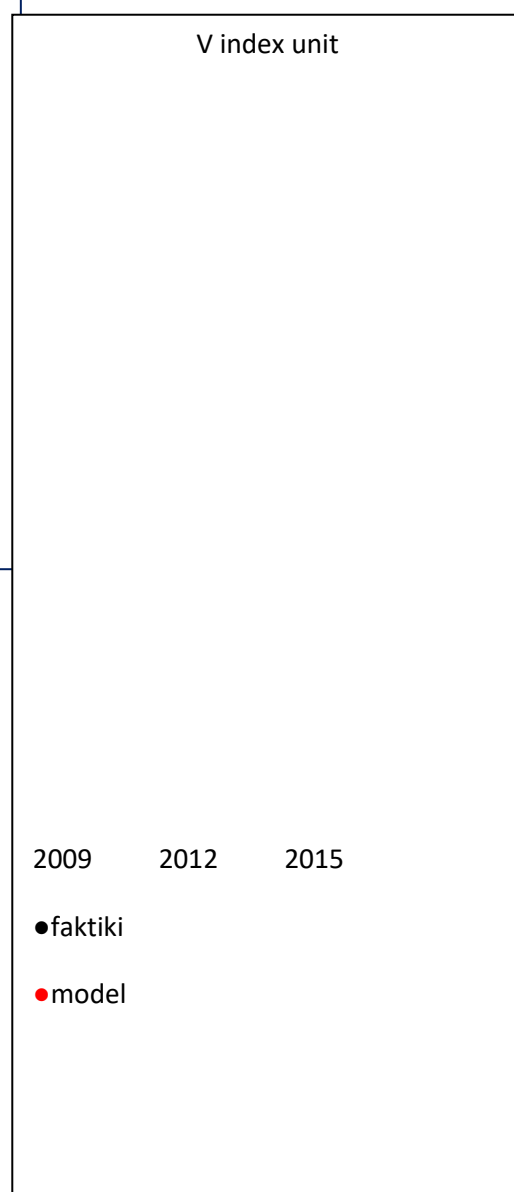
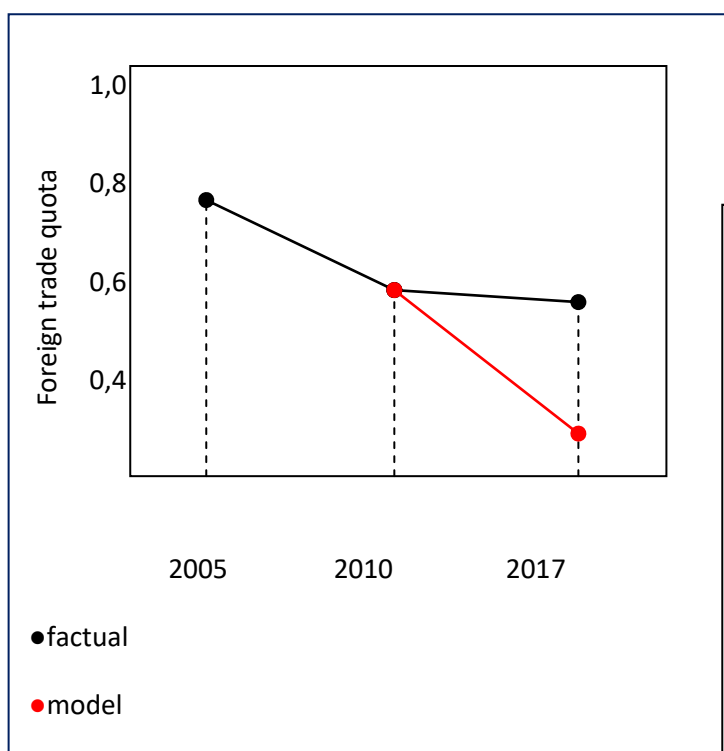
Appendix 1

$$r^2 = 1 - \frac{\sum_i (Y(t) - Y_n(t))^2}{\sum_i (Y(t) - E[Y])^2},$$

- 1) $r^2 = 1 - \frac{0,328 - (0,216)^2}{0,328 - (0,112)^2} = 1 - \frac{0,328 - 0,047}{0,328 - 0,012} = 1 - \frac{0,281}{0,316} = 1 - 0,889 = 0,111$
- 2) $r^2 = 1 - \frac{0,318 - (0,174)^2}{0,318 - (0,144)^2} = 1 - \frac{0,318 - 0,030}{0,318 - 0,020} = 1 - \frac{0,288}{0,298} = 1 - 0,966 = 0,034$
- 3) $r^2 = 1 - \frac{0,650 - (0,487)^2}{0,650 - (0,773)^2} = 1 - \frac{0,237}{0,029} = 1 - \frac{0,413}{0,621} = 1 - 0,665 = 0,335$
- 4) $r^2 = 1 - \frac{0,639 - (0,880)^2}{0,639 - (0,144)^2} = 1 - \frac{0,77}{0,20} = 1 - \frac{0,131}{0,433} = 1 - 0,294 = 0,706$
- 5) $r^2 = 1 - \frac{0,928 - (0,865)^2}{0,928 - (0,063)^2} = 1 - \frac{0,185}{0,925} = 1 - 0,2 = 0,806$
- 6) $r^2 = 1 - \frac{1,0 - (0,384)^2}{1,0 - (0,284)^2} = 1 - \frac{0,147}{0,080} = 1 - \frac{0,853}{0,92} = 1 - 0,927 = 0,073$

Figure 1. Main results of modeling of the indices of the transnational business in foreign trade.





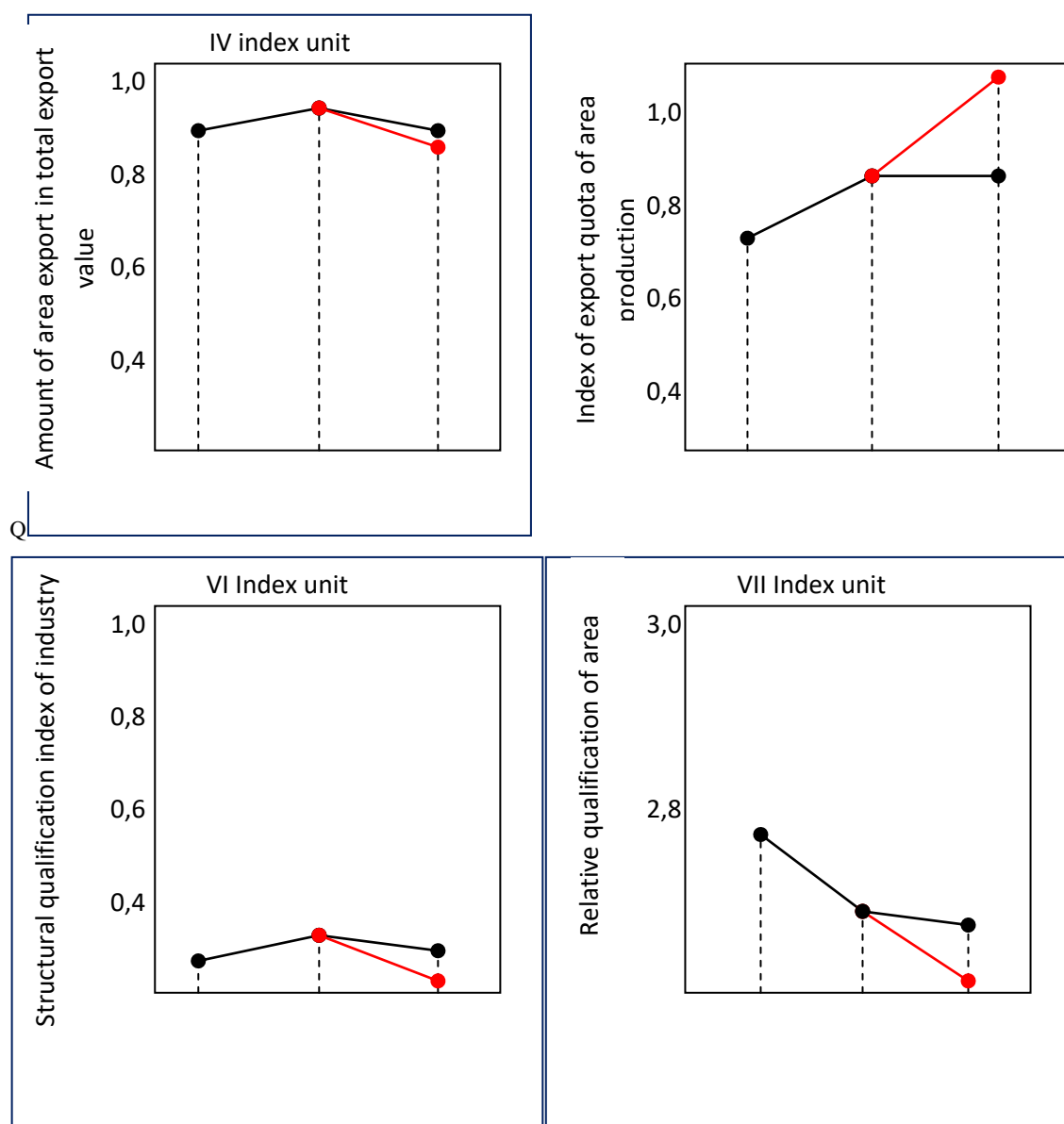


Figure 1. Main results of modeling on indices of the transnational business in foreign trade.

Note. Estimations by the researcher



A Postmodern Counselling Approach: Solution-focused brief therapy

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Abstract

Solution-focused brief therapy is discussed as an approach of counselling which has been especially recently used commonly in the field of family counselling. It becomes a frequently-preferred counselling approach in the area of family counselling, since it derives from such cruxes as the fact that it takes a shorter amount of time compared to other counselling approaches, that it focuses not on problems, but on solutions, the fact that it takes direction to the future instead of past experiences, the fact that it grounds on the fact that families contain solutions within themselves. The approach has emerged with the development of strategic family counselling. Steve DeShazer, Ben O'Hanlon and Insoo Berg are of important representatives of the approach. The core of short-term family counselling consists of bring families in the ability of finding effective solutions by constructing families' extant information. This research is a theoretical study which has been conducted on the approach of short-term solution-oriented family counselling. The base of the approach, role of counsellors, period of counselling and techniques, strengths and limitations of the approach are presented based on the data available in the literature.

Key Words: Solution-focused brief therapy, Counselling, Psychology

Introduction

Solution-focused brief therapy is described a theory of counselling which is based not on problems, but on solutions, which deals not the past, but with the future, and which believes that families possess the potential to find a way to the problem (Nichols, 2013). It draws attention as a family counselling approach on which studies are conducted both around the world and in our country lately, and which is implemented in therapies with families.

Solution-focused brief therapy is of significance, in that it is an approach which achieves a solution for the problem by holding a couple of sessions in especially short amount of time, and in that it is based not on the pathology of a problem, but on the solution of the problem during the therapy, and it is frequently used by families. In this regard, the definition of solution-focused brief therapy, its basic principles, implemented techniques, counsellor – counselee relation beside its strengths and limitations are explained in this section.

Solution-focused brief therapy

Solution-focused brief therapy approach was evolved by Steve de Shazer, Insoo Kim Berg and Bill O Hanlon in 1980s (Macdonald, 2007). It is an approach of family counselling which is based on the basis of strategic family counselling, which is short-termed, and which contains the assumption that families actually know how to solve their problems, but become conscious only when in the therapy period (Tekindal, 2014). Counsellors assist little changes to bring along big changes by supporting their counsees to set their goals and to become conscious of their existing potencies (Seligman and Reichenberg, 2010).

Solution-focused brief therapy is based on such main assumptions that focusing on achievements will help beneficial changes, that little changes will enable big and functional changes, that it is not necessary to know about the problem in detailed way in order to achieve the solution, and that families indeed own the power to solve the problem (O'Hanlon and Weiner-Davis, 2003). This approach defends that problems are caused by the pessimistic viewpoints of family members regarding problems, and it focuses on considering on solutions not on problems (Nazlı, 2014). It argues that having excessive information on the problems of counsees during the period of counselling could result in a chaos and inhibit attaining the appropriate solution (Güner, 2011).

Solution-focused brief therapy is based not on the past, but on the future. It receives help from the past only at some points such as exceptional times when they can provide solutions to the problems of counsees (Moore, 2002). It defends that families with problems are actually ingrained in the interaction model which continues the problem, and that, if the families are made conscious of exceptional situations in which problems are not



experienced, the solution of the problem will become easy to solve, thus actualising a healthy family structure (Carr, 2006). The counsellor and counselee are aimed to extrapolate in cooperation in the phase of solving the problems by stressing out the potential sources of the counselee (Doğan, 2000).

Principles of Solution-focused brief therapy

DeShazer (1985), Berg ve Miller (1992) put forward three principles which constitute the basis of solution-focused brief therapy. These three principles are as follows, “Don’t repair something if it is not broken!”, “Do it more when you observe something working out!” and “If something is not working, don’t do it again, do something else!”

1) Don’t Repair It If Not Broken: Intervention to the point not complained by the counselee is not necessary and it is necessary not to put a barrier to the functioning state of the counsellor. An intervene which is made to the field which does not constitute to a problem for the counselee could cause them to have difficulty with the problems they can cope with. The counselee should produce a solution in order to come over the challenge they are in when they confront with a problem (Berg and Miller, 1992) (76154).

2) Apply for Operative Solutions: Effective methods which have been successful in advance should be implemented in the solution of problems. Making use of the methods the functionality of which has been proved to be successful beforehand with a view to achieving the change at the period of counselling enables the counselling to be successful in a short time by accelerating it (Molnar and Shazer, 1987).

3) Don’t Apply for Non-operative Solutions, Try Out Different Solutions: A method without functionality to solve the problem should not be implemented again. What is important is to willingly and insistently activate various and unique solutions instead of ineffectual solutions (Berg and Miller, 1992).

Techniques Implemented in Solution-focused brief therapy

Some of the techniques implemented in solution-focused brief therapy are miracle questions, focus on exceptions, little monkey, compliments and scaling questions. These techniques are explained briefly below.

Miracle Questions: They include questions “Suppose that a miracle has occurred tonight and the problem which brings you to the counselling disappeared in the morning, how would your life be? How would you understand the problem has disappeared?”, which are posed to the counselee by the counsellor so as to identify what will happen when the problem has disappeared (Sklare, 2013). Miracle question technique is significant in clarifying the purpose of the counselling and determining the targeted change; therefore, the topic which needs changes is determined. (Yanardağ and Zubaroğlu, 2019). Families are enabled to focus on the change by moving away the problem they are in with miracle questions. This technique should be applied after family counsellors attain sufficient information about the family and observe that they are ready (Nazlı, 2014).

Scaling Questions: It is a method of embodying done in order to enable counselees to realise points they have shown progress in between their present situation and where they desire to be at the future. Counselees are asked to assess how far they have come to achieve their goal between 0 and 10 (in a way that 0 is the lowest, 10 the highest). To give an example, in a situation where the counselees state ‘four’, they are made conscious of the fact that they should take realistic and measurable steps with the aim of achieving their goal with such a question as “What do you think you should do in order to make four points five?” (Shazer, 2007).

Focusing on Exceptions: It is a technique applied to ensure that the counselees realize what they do differently in exceptional times when the problem is not experienced. It allows the counselee to see that the problems are not always present and that they have no problems, successful and happy times (Malkoç ve Akkoyun, 2012). Exception questions include questions such as “Can you tell me when you are not worried?”, “Has there been a moment when you haven’t had this problem recently?”, “Can you describe times when you can cope with them although you have problems?” (Nichols, 2013). The technique of focusing on exceptions usually helps them to become aware of the potential solution of the problem for the family to achieve their goals by focusing on the dynamics of the family. (Nazlı, 2014).



Compliments: It involves confirming the good things the counselee has done, their achievements and strengths. The counsellor conveys a message to the counselee that makes them feel valued by benefitting from the compliment technique. This helps the counselee to see what he needs to do more. It can be done in two ways as direct compliment and indirect compliment. The direct compliment, which positively evaluates the counselee's response and includes the positive response, can be done with sentences such as "You must be very clever because you think about it, too." The indirect compliment that makes positive implications for the counselee can be done such questions as "How could you make the household so comfortable?" (de Jong ve Berg, 1998).

Little Monkey: It includes the evaluation and implementation of key solutions that have worked in the family so far. DeShazer's five interventions such as "Which of the events in your life would you like to continue to happen?", "Do something different", "I want you to pay attention to what you do in cases when you deal with the desire to do things which you consider as a problem.", "Many people in your shoes would in this case." and "Write, read and burn your thoughts." can be illustrated as examples of it (deShazer, 1985).

Counsellor – Counselee Relationship

According to Berg and Miller, there are three types of counsellor – counselee relationships: customers, complaints and visitors in a short-term solution-oriented approach (Nelson and Thomas, 2007).

Clients: The type of counselee who is willing to work towards a solution, who considers himself to be a part of the solution. Client type counselees are the most ideal counselees for counseling. The counselee is empowered by assigning homework assignments thanks to the potential to fulfill the assigned tasks and is encouraged to take steps towards change. (Gladding, 2011).

Complainants: A type of counselee who is complaining about the problem, who can describe the problem but is not willing to do anything for the solution, believing that the solution is in the changes done by another person in the family. Counselors should give such counselees an observation assignment to gain awareness of their situation. For example, an assignment such as "I want you to note the things that go well in your life and that you want to continue in the time between this session and the next session." can be given (Seligman ve Reichenberg, 2010).

Visitors: A type of client who brings himself to consult, who cannot perceive the problem that needs to be worked on, who comes to consult with the guidance of someone, who thinks that he does not need to change during the consultancy process, who does not have motivation for change and who does not want to take part in the solution (Doğan, 1999). One of the goals of the short-term solution-oriented family counsellor in consultation is to include 'complainants' and 'visitors' type clients in the customers' group and to enable them to cooperate for solutions (Gladding, 2011).

Strengths and Limitations of Short Term Solution Oriented Family Counselling

According to Gladding (2011), the strengths of the approach are summarized as follows: One of the most important advantages of the solution-focused brief therapy approach is the planning of 5-10 sessions and solving the problems in a short time. Unlike other family counselling theories, it does not have a past-oriented clinical understanding, it is future-oriented, and small changes are important because they bring great changes. The counselees are able to feel motivated by letting them dream of problem-free future by providing them with awareness raising activities such as "Find times when there are no problems" The counselors help to uncover the inherent power that families have on the assumption that they have the potential to solve the problem. (Gladding, 2011).

Limitations of the solution-focused brief therapy can be cited as the points such as the approach not focusing on the history of the problem, the termination of the counsellor in a short time, even if the families are ready to continue the counselling process, the lack of therapeutic issues, and the ability of the family counsellor to have sufficient skills to involve the whole family in the change process (Nazlı, 2014).



Conclusion and Suggestions

Solution-focused brief therapy is a counselling approach used in family therapies in recent years and field literature studies in Turkey and all over the world. When the literature is examined, there are various studies about solution-focused brief therapy, but it is observed that the literature researches in our country are insufficient. It is thought that the increase of experimental research especially for short term solution-oriented family counselling approach will contribute to the field and will be a reference for researchers.

References

- Carr, A. (2006). *Family Therapy Concepts, Process and Practice*. England: John Wiley & Sons.
- De Jong, P. ve Berg, I. K. (1998). *Interviewing For Solutions*. Pacific Grove: Brooks/Cole.
- De Shazer, S. (1985). *Keys To Solution in Brief Therapy*. New York: Norton.
- Doğan, S. (1999). Çözüm-Odaklı Kısa Süreli Terapi: Kuramsal Bir İnceleme. *Türk Psikolojik Danışmanlık ve Rehberlik Dergisi*, 2(12), 23-38.
- Doğan, S. (2000). Okul Psikolojik Danışmanları İçin Yenive Pratik Bir Yaklaşım: Çözüm-Odaklı Kısa Süreli Psikolojik Danışma. *Eğitim Ve Bilim Dergisi*, 25(116), 59-66.
- Gladding, S. T. (2011). *Aile Terapisi Tarihi, Kuram ve Uygulamaları*. (Çev. Ed. İ. Keklik ve İ. Yıldırım) Ankara: Türk Psikolojik Danışmanlık ve Rehberlik Derneği. +
- Güner, O. (2011). *Çözüm Bende Saklı*. Ankara: Efil Yayınevi. +
- Macdonald, A. J. (2007). *Solution- Focus Therapy Theory, Research and Practice*. London: Sage Publications.
- Moore, K. C. (2002). The Effectiveness of Solution-Focused Therapy on Students With School-Related Behavioral Problems. Unpublished doctoral dissertation. The University Of Texas At Austin
- Malkoç, A. ve Akkoyun, F. (2012). Çözüm Odaklı Terapi. *Psikolojik Danışma ve Psikoterapi Kuramları Olgu Sunumu Yaklaşımıyla*. (Ed. F. Akkoyun) Ankara: Nobel Yayın Dağıtım. +
- Nazlı, S. (2014). *Aile Danışmanlığı*. Ankara: Anı Yayıncılık. +
- Nelson, T. S., ve Thomas, F. N. (2007). *Handbook Of Solution-Focused Brief Therapy: Clinical Applications*. Binghamton: Haworth.
- Nichols, P. M. (2013). *Aile Terapisi, Kavramlar ve Yöntemler*. (Çev. O. Gündüz) İstanbul: Kaknüs Yayınları. +
- O'Hanlon, B., Weiner-Davis, M. (2003). *In Search Of Solutions, A New Direction In Psychotherapy*, New York: W.W. Norton & Company. +
- Shazer, S., Dolan, Y., Korman, H., Trepper, T., Mc Collum, E. & Berg, I. K. (2007). *More Than Miracles: The State of the Art of Solution-Focused Brief Therapy*. New York: Haworth Press. +
- Seligman, L. ve Reichenberg, L. W. (2010). *Theories of Counseling and Psychotherapy: Systems, Strategies and Skills*. New Jersey: Pearson. +
- Sklare, G. B. (2013). *Okul Araştırmacıları İçin Çözüm Odaklı Kısa Süreli Psikolojik Danışma*. (Çev. M. Siyez, A. Kaya) Ankara: Pegem Akademi. +
- Tekindal, M. (2014). Sosyal Hizmette Ailelerle Uygulama Modelleri. V. Işıkhani (Haz.). *Prof. Dr. Gönül Erkan'a Armağan Sosyal Hizmet ve Mülakat*, (1. bs.). (s. 265-280) Ankara: Sosyal Hizmet Araştırma, Uygulama ve Geliştirme Derneği.
- Yanardağ Zubaroğlu, M. (2019). Sosyal Hizmette Çözüm Odaklı Kısa Süreli Terapinin Kullanımı: Çözüm Odaklı Kısa Süreli Terapiye Dayalı Grup Çalışmasının Sosyal Hizmet Öğrencilerinin Sosyal Kaygı Düzeylerine Etkisi. A. İ. Çağasioğlu Çoban ve S. Attepe Özden (Haz.), *Psikiyatrik Sosyal Hizmet* (s. 371-382). Ankara: Nobel.



A New Psychotherapy Approach: Logotherapy

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Abstract

Logotherapy has been drawing attention in the field of psychotherapy in recent years as a therapy approach focused on meaning and nurtured by existentialist approach and humanistic approach. According to logotherapy, the basic motivation of the human being is the search for meaning. The aim of logotherapy is to help the individual to become aware of the hidden meaning in his life, to find a purpose and to act positively in the direction of self-transcendence. The intellectual foundations of logotherapy, also called the Third Vienna School of Psychotherapy, were laid by Victor Frankl during his stay in Nazi concentration camps. Frankl questioned what kept people alive in the Nazi concentration camps in an environment of torture. Frankl discovered that people needed something they could live to hold on to life in these challenging processes, and that the search for meaning was vital to man. Concepts such as freedom of will, desire for meaning, meaning of life, meaning of love and meaning of pain constitute the basic principles of logotherapy. This research is a theoretical study on logotherapy. The essence of the approach, its basic principles, the basic concepts, the role of the therapist, the therapeutic process and techniques are presented based on the knowledge in the literature.

Key Words: Logotherapy, Psychotherapy, Seeking Meaning, Psychology

Introduction

Logotherapy is an attention-grasping theory especially in recent years in our country as well as in the world and studies are being conducted on the body of the literature.

Logotherapy, which is also called as the Third Vienna School, is defined as the approach of “therapy via meaning”, which helps the individual to become aware of the hidden meaning in his life and which involves raising the awareness of the individual about the responsibility of his existence (Frankl, 2007).

Logotherapy is important in terms of being a theory that contributes to finding the purpose of life, realizing the meaning in life and progressing towards self-transcendence. In this context, the definition of logotherapy, its basic principles, basic concepts, therapeutic process, the role of logotherapists in consultation, and therapeutic techniques are discussed in this section.

Logotherapy

Logotherapy was developed for the first time in 1938 and was developed by Victor Frankl and created when the thought ground was in the Nazi concentration camps. After Freud and Adler, Frankl, who is the most remarkable figure in the field, was captured in the Nazi concentration camps and lost his family members there. As a result of his observations and experiences during three years in Nazi concentration camps, he developed logotherapy (Altıntaş and Gültekin, 2014). Frankl questioned why people did not commit suicide and why they insisted on living in the Nazi concentration camps where survival was torture. He observed that, despite all the negative situations, people who can give meaning to themselves and their future survive with hope and their resistance increases (Çolak, 2014).

According to V. Frankl, it is not the desire for “pleasure” mentioned by Freud, or “the effort of superiority” that Adler talks about. According to Frankl, man is in search of ‘meaning’ and the search for meaning is a distinctive feature of being human. (Frankl, 2014). The aim of logotherapy is to help people find their meaning and purpose in life and to move forward on their way to going beyond themselves (Starck, 1985).

The most important task of logotherapy is to raise awareness of the person in search of meaning about ‘the responsibility of his existence’ (Frankl, 2015). Frankl observed that individuals need ‘something’ for the sake of which they can live in order to survive (Fabry, 1982). Individuals can find a force to survive as long as they can give meaning to their life even if they are under difficult and even deadly conditions (Frankl, 2015). Logotherapy



helps individuals add meaning to their lives and lead a healthy life by illustrating each individual that their life is their responsibility (Barnes, 2005).

Basic Principles of Logotherapy

Logotherapy has three basic principles: freedom of will, desire for meaning, and meaning of life (meaning of love and meaning of pain) (Frankl, 2014).

Freedom of will: It is a concept that states that individuals have the potential to choose freely. While the freedom of the individual is limited by the circumstances, the freedom Frankl actually means is an individual's freedom of 'choosing their attitude'. He mentioned that an individual can maintain the independence of his mind and the freedom of his soul, even under the worst conditions, physically or psychologically (Altıntaş and Gültekin, 2014).

Desire for meaning: It's the term Frankl uses to find a purpose and meaning in life (Budak, 2003). According to Frankl, the basic idea of man and the distinguishing feature of being human is the desire for meaning. (Altıntaş and Gültekin, 2014). The desire for meaning includes "the need of an individual to make their existence meaningful, the need to make happenings meaningful, the need to make things meaningful, and the need to create personal meaning" (Frankl, 2014). The desire for meaning is of unique and special structure, since it can only be found by the individual himself (Frankl, 2015). The individual whose desire for meaning is achieved gets happy and can cope with all kinds of frustration and pain (Frankl, 2014).

Meaning of life: Meaning in life is always variable; however, it never disappears. The individual can find the meaning of life by "creating a work", "getting in touch with a person", "developing an attitude towards pain" (Karahan and Sardoğan, 2004). The meaning of life varies from individual to individual from day to day. What is important is not the 'general' meaning of life, but its 'special' meaning at a period of time. (Frankl, 2015). When Frankl was asked about the meaning of his life, he replied, "To help others find the meaning of their lives." (Barnes, 2005).

Within the concept of meaning of life, the meaning of love and the meaning of pain are significant.

Meaning of love: Frankl defines love as a way of finding meaning. Loving the nature and people are actions which add meaning to life. Only if someone loves, they can realize the essence of other people, see their potential and help them to realize their potential. (Frankl, 2014).

Meaning of pain: Pain is a part of human life, on the other hand, the pain without any meanings leads the individual to despair. Logotherapy argues that individuals must boldly shoulder pain for healing. The individual can deal with pain heroically by finding meaning in pain, hence approaching to reveal its potential. (Frankl, 2015).

Basic Concepts of Logotherapy

The basic concepts of logotherapy can be listed as "spirit dimension, existential frustration, existential emptiness, noogenic neuroses, freedom and responsibility, excessive intention, excessive thinking, distant self-criticism and self-transcendence" (Frankl, 2014).

Spirit Dimension: The spirit dimension used as a concept in logotherapy includes the tension arising from the tension between the counselee's existing condition and the situation he / she wants to be. The main purpose of the spiritual dimension is not to stand internally in balance, but to develop dynamically (Çolak, 2014). The spiritual dimension carries individuals above the somatic and psychic dimensions, and it is the dimension that separates individuals from other living beings and makes them specifically human (Rice, 2005). Frankl believes that even under the most difficult circumstances, the individual's mind can somehow keep his spiritual freedom secret (Corey, 2005).

Existential Frustration: Frankl defined existential frustration as "the frustration that an individual goes through because he does not get a reason to survive". This feeling can cause existential gaps and neuroses over time (Budak, 2003). Individuals need to live and understand for a purpose; otherwise, 'existential frustration' appears. (Karahan and Sardoğan, 2004).



Existential Emptiness: It is a term which appears to be “a spiritual depression, lack of love, reasonless fear, pessimistic thinking” on people and which Frankl defines as “the individual cannot find a reason to survive and thus questioning the life”. Logotherapy tries to bring together three elements “work, occupation and value to get away from the existential gap. The person is perceived as responsible for performing these elements (Budak, 2003).

Noogenic Neuroses: Noogenic neuroses arise as a result of obstructing individuals' search for meaning and suppressing their spiritual needs.

The counsellor should help the counselee raise awareness of his spiritual needs in order that the counselee can develop a sense of meaning in life (Frankl, 2014).

Freedom and Responsibility: The individual is free in the spirit dimension and can influence his own existence. According to Frankl, being free and conscious brings responsibility. (Barnes, 2005). According to logotherapy, each individual is questioned by life and responds responsibly to life. The essence of human existence is responsibility (Frankl, 2015).

Excessive Intention: It is the term used in logotherapy as “badly wanting something prevents it from reaching it”. It is argued that an over-willingness to sleep will miss the sleep, as well as an over-willing desire to be happy will make the person unhappy (Budak, 2003).

Excessive Thinking: Logotherapy is the term used to describe that over-fearing or over-thinking of something will lead to that thing. That someone who is afraid of sweating or stuttering is more exposed to these situations can be showed as an example of the concept of excessive thinking (Budak, 2003). Similarly, the more counselees think about their problems, the more likely their problem situation will increase (Lukas, 1986).

Self-transcendence: It is defined as “an individual's desire to turn towards something outside and above himself”. According to Frankl, the concept of self-realization is the result of self-transcendence. An individual will attain his true self as a real person on condition that the individual exceeds himself (Frankl, 2007).

Distant Self-criticism: Individuals have the ability to predict the outcome of their behaviour. Distant self-criticism reveals the individual's capacity to develop an attitude even towards himself (Frankl, 2015). In logotherapy, counselees are assisted to reach the one beyond themselves in order to find meaning by teaching them self-regulation such as a distant self-criticism and relaxing techniques taught self-regulation and relaxation methods related to self-care and help the client reach beyond to find meaning (Rice, 2005).

Therapeutic Process

Therapeutic treatment in logotherapy includes four stages defined by Lukas as “alienation from symptoms, alteration of attitudes, reduction of symptoms and orientation to meaningful activities, experiences, attitudes” (Lukas, 1986).

Alienation from Symptoms: The first objective in the therapeutic process is to make the counselee conscious of the perception that the symptom and the counselee are different. It includes helping the counselee realise that they do not consist of their fears, attachments or addictions (Frankl, 2015).

Alteration of Attitudes: It is aimed to change the attitudes of the counselee towards himself and his life with the perception that he is distant from his symptoms in the second stage of the therapy process. The counselee is helped to move from being a victim to becoming an individual who illustrates a healthy existential attitude (Lukas, 1986).

Reduction of Symptoms: In the third stage of therapy, following the alteration of attitudes, symptoms become manageable or disappear. New attitudes help clients to come up with new answers to fate (Frankl, 2015).

Orientation to Meaning: In the fourth and final stage of therapy with the success in the reduction of symptoms, a positive and curative aspect of the new attitudes of the counselees emerges. The counselee is open to new meaning orientation. In this process, meaning is discovered and revealed by a common orientation between the log therapist and the counselee (Lukas, 1986).



The Function and Role of Therapists

In logotherapy, the clients are enabled to change their attitudes towards the meaning of life by getting confronted with their problems by the logotherapists (Starck, 1985). Logotherapists cannot tell their clients the meaning of life, but they can show that everyone can find meaning in life and find meaning even under difficult circumstances (Frankl, 2007). Another important task of logo therapists is to put an emphasis on the uniqueness of the counselee and to demonstrate them how to do so by making them aware that they are free to respond to problems (Frankl, 2015).

Therapeutic Techniques

In the process of logotherapy, four basic techniques are applied: “paradoxical intent, changing the focus of thought, Socratic dialogue and shaping attitudes”(Frankl, 2015).

Paradoxical Intent: Paradoxical intent is defined as “encouraging the counselee to do what he is afraid of”. In logotherapy, the problem is believed to actually originate from avoiding the problem. It is considered that the counselee is focused on the problem as he is scared and strengthens the symptoms, thus catching a vicious circle (Frankl, 2015). This technique has been developed especially for use in obsessive-compulsive and phobic situations (Frankl, 1988).

Changing the Focus of Thought: It is a logotherapy technique that involves directing the attention of the client from the negativities and failures to the functional areas and personality areas where they can find meaning. It consists of five steps such as “changing the focus of thought, researching the roots of over-intention and over-thinking, explaining the connection between the over-intention and over-thinking and present formulation, directing the client's awareness to the positive direction, creating a list of meaningful activities, and helping clients to move to alternative lists when they realize they are over-intending”(Frankl, 2015). This technique has been developed for individuals who pay too much attention to problems such as insomnia and sexual dysfunction (Rice, 2005).

Socratic Dialogue: Just as Socrates argues that it is “the duty of a teacher to reveal his instinctual knowledge, not to convey knowledge to his students”, V. Frankl argues that the task of logotherapists is not to tell the meaning of life to his clients, but to reveal the knowledge, meaning, freedom and responsibility of the counselees. In the Socratic dialogue, the individual is helped to gain insight through various questions such as “what, who, how, where, when” (Çolak, 2014).

Shaping Attitudes: In logotherapy, the formation of attitudes is based on the principle of “recognizing that the person determines the attitudes rather than the situations”. The aim is to make the counselee aware of the fact that meaning can exist in any situation. This technique is widely used in neurogenic neuroses and in treating anxiety (Frankl, 2015).

Conclusion and Suggestions

Logotherapy has become a prominent theory in the literature, which has started to spread all over the world and made an overwhelming impression especially after the Second World War. When the literature is examined, there are various researches about individual and group therapy methods with logotherapy content. When the literature in our country is examined, it is seen that the studies with logotherapy content are more limited. It is thought that it will be useful to use in school psychological counselling and guidance services especially in the field of education, in that it will be helpful for the individual to realize the meaning in his life and that it takes important points such as freedom of will in human being as the basis.

References

- Altıntaş, E., Gültekin, M. (2014). *Psikolojik Danışma Kuramları*. Ankara: Nobel Yayınları.
- Barnes, R. C. (2005). “Logotherapy and the Human Spirit”, Edit. G. E. Rice, Franklian Psychology: An Introduction to Logotherapy (2005), Viktor Frankl Institute of Logotherapy: 31-49.
- Budak, S. (2003). *Psikoloji Sözlüğü*. Ankara: Bilim ve Sanat Yayınları.



- Corey, G. (2005). *PsikolojikDanışma, PsikoterapiKuramveUygulamaları*. (Çev.Ergene, T.) Ankara: Mentis Yayıncılık.
- Çolak, S. (2014).AffetmeDavranışıKazandırmadaLogoterapiYönelimliGruplaPsikolojikDanışmanınEtkililiği.YayınlanmamışDoktoraTezi, Sakarya ÜniversitesiEğitimBilimleriEnstitüsü, Sakarya.
- Fabry, J. (1982). "The Frontiers of Logotherapy", Edit. G. E. Rice, Franklian Psychology: An Introduction to Logotherapy (2005), Viktor Frankl Institute of Logotherapy: 116-122.
- Frankl, V. E. (1988). *The Will to Meaning Foundations and Applications of Logotherapy*. New York: A Meridian Book.
- Frankl, V. E. (2007). *DuyulmayanAnlamÇılgılığı*. (Çev. S. Budak) İstanbul: ÖtekiYayınevi.
- Frankl, V. (2014).*HayatınAnlamıvePsikoterapi*.(Çev. V.Atayman) İstanbul: Say Yayınları.
- Frankl, V. (2015).*İnsanınAnlamArayışı*.(Çev. S. Budak) İstanbul: OkyanusYayınları.
- Karahan, T. F., Sardoğan, M. E. (2004). *PsikolojikDanışmavePsikoterapideKuramlar*.Samsun: DenizKültürYayınları.
- Lukas, E. (1986).*Meaning in Suffering*.California: Institute of Logotherapy Press. +
- Rice, G. E. (2005). *Franklian Psychology: An Introduction to Logotherapy*, Viktor Frankl Institute of Logotherapy: 116-122.
- Starck, P. L. (1985). "Logotherapy Comes of Age: Birth of Theory", Edit. G. E. Rice, Franklian Psychology: An Introduction to Logotherapy (2005), Viktor Frankl Institute of Logotherapy: 133-137.



An investigation into the impact of brain-based learning on EFL students' proficiency level

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Abstract

This paper probes the influence of the intervention in brain-based learning on adult EFL students' proficiency in English. Mixed-methods research design was employed to examine whether the brain-based learning intervention could lead to a considerable improvement in students' proficiency level in English. The classes attended by experimental group were offered in compliance with the educational implications of brain-based learning principles for four months whilst the students in the control group were taught according to the programme developed by the school where this study was conducted. The results obtained from the analysis of the data comprising the grades the participants got from the four midterm exams indicate a statistically significant difference between the experimental and control group as to their English language proficiency. The results yielded by the content analysis of the data from the semi-structured interview reveal that the experimental group participants have positive views on brain-based lessons.

Keywords: Adult EFL learners, brain-based learning, EFL learning, proficiency in English

Introduction

A myriad of initiatives have been embarked on up till today in an attempt to overcome the hurdles English language learners face and improve their language proficiency. These enterprises encompass various methods and approaches used in English lessons such as communicative language teaching, silent way, community language learning, technology-enhanced language learning so on so forth, the common goal of which is improving students' proficiency either in one skill or overall language proficiency in English. Brain-based learning approach, which has been defined by Connell (2009) as the implementation of the techniques springing from works in the field of neurology and cognitive science with a view to improving teacher instruction, thereby maximizing student learning, aims at empowering students by fine-tuning teaching practices in order for learning to take place and boost it by taking into account how the brain normally learns.

In line with the definition of brain-based learning proposed by Connell (2009), Jensen (1995, 2000) defines it as learning that is not incongruent to how the human brain naturally learns. The proponents of brain-based learning (Caine & Caine, 1994, 2000; Freeman & Wash, 2013; Gura, 2005; Hart, 1983; Kaufman, Robinson, Bellah, Akers & Haase-Wittler, 2008; Souise, 2001) lay the emphasis on the necessity of teaching in accordance with how the human brain learns. As stated by Lucas (2003), brain-based learning regards learning as a dynamic process in which student creativity is promoted by challenges, and in addition to stimulating student creativity, it could maximize attainment and retention of knowledge.

Learning English in an EFL setting is purported to be a factor adversely affecting the probability of having a native-like level of proficiency in English. Brain-based learning approach could, therefore, cater for ruling out the undesired effect of learning English in an EFL context, and prompt growth in students' English language proficiency. Tertiary-level students experiencing problems in using English in either spoken or written modality to be able to convey their messages have been "learning" English for more than ten years in the context this research was conducted. Existence of such an issue, in spite of long periods of time involving the efforts put forth to learn English, unearths the need for seeking distinct methods and techniques to produce solutions to the problem of not being capable of using English as a medium of communication. For this reason, the findings indicated in this study may provide a new breath for the practitioners targeting enhancement in the English language proficiency of not only adult learners but also students of differing ages.



The review of the related literature does not reveal a huge bundle of research carried out to examine the impact of brain-based learning on students' language proficiency. For this reason, research having been carried out heretofore on the purpose of not only scrutinizing the influence of brain-based learning on students' English language proficiency but also literacy skills will be presented in this section. The quasi-experimental study done by Blackburn (2009) so as to investigate the influence of brain-based learning on elementary level students' reading proficiency revealed no statistically significant difference between the experimental group trained in parallel with brain-based learning and the control group taught in line with the traditional programme. By the same token, the results of the experimental study carried out by McNamee (2011) indicated that being exposed to teaching conducted in parallel with brain-based learning did not lead to a statistically significant difference between the experimental and control group comprised of second-grade students. In contrast to the aforementioned studies, the research conducted by Cowan (2009) showed that brain-based learning exerted a positive impact on the reading skills of elementary-level students struggling with improving their reading skills. Similarly, the results reported in the study done by Hoge (2002) showed the positive effect of brain-based learning on elementary-level students' literacy skills and on creating a non-threatening and stimulating classroom environment. Getz (2003) is another researcher conducting research in an attempt to examine the influence of brain-based learning on college-level students' writing skills. The results of the study did not show a statistically significant difference between the group receiving the intervention in brain-based learning and the other group with respect to their scores in writing.

There is a paucity of research probing the influence of brain-based learning on students' English language proficiency. The results of one of these studies carried out by Baş (2010) indicated that the group taking English lessons designed in accordance with brain-based learning outperformed the other group taught via traditional teaching methods in the post-test. Another study is carried out by Huang (2006) to investigate the impact of brain-based learning strategies on English achievement test scores of the students above the secondary level in Taiwan. The findings revealed that implementation of brain-based learning strategies resulted in improvement in students' achievement levels in English.

Considering the gap in the literature in terms of the limited number of research dedicated to investigating the impact of teaching tailored in agreement with brain-based learning principles on adult EFL learners' proficiency in English not only in this context but also abroad, the results presented in this study could provide a valuable contribution to the existing body of knowledge on the topic. This research was conducted with a view to seeking answers to the research questions stated below.

1. Does the intervention in brain-based learning result in a statistically significant difference between the midterm exam results of the experimental and control group?
2. What are the experimental group participants' perceptions regarding the brain-based learning intervention?

Methodology

Research design

This study employs an explanatory sequential mixed-methods research design. The first phase of the study included gathering the quantitative data by administering the four midterm exams to search if there was a statistically significant difference between the experimental and control group's scores on the four midterm exams, and the analysis of the gathered data. The second phase of the study involved the collection of the qualitative data through the semi-structured interview in an effort to shed light on the views of the experimental group participants with regard to the intervention in brain-based learning and to be capable of better explaining in what ways the brain-based learning intervention supported the participants in improving their overall



proficiency in English more in comparison to the achieved improvement on the part of the control group. This phase encapsulated the analysis of the qualitative data, too. Mixed-methods research design was used in this paper because as maintained by Creswell (2013), “this mixing or blending of data, it can be argued, provides a stronger understanding of the problem or question than either by itself”. Similarly, the definition of mixed-methods research design introduced by Tashakkori&Teddle (2003a) could help understand why this research design was employed to find out answers to the research questions in this study. They have defined mixed-methods research as “a type of research design in which QUAL and QUAN approaches are used in types of questions, research methods, data collection and analysis procedure, and/or inferences” (p. 711).

Participants

The participants of this study were 41 tertiary-level EFL students enrolled in the school of foreign languages of a state university. The participants were 18-22 years of age. While 21 students participated in the study in the experimental group, the remaining 20 participants were in the control group. The participants had been learning English approximately for 11 years before being enrolled in the school. The proficiency exam administered at the outset of the academic year indicated that the participants were at B1 level and following the proficiency exam, random assignment of the participants either to the experimental or control group was realized. Having a good command of English was of high importance to all the participants in that medium of instruction was English in the university in which this research was undertaken; the participants, therefore, were eager to enhance their proficiency level in English. For four months, the experimental group were taught English in line with the implications of brain-based learning which are proposed by Caine and Caine (1994) while the language education provided to the control group pursued the program prepared by the school.

Data Collection Tools

Midterm Exams

The preparatory program the participants were subjected to is based on modular system. Each module lasts eight weeks in which two midterms are conducted. Students’ progress in four skills is assessed in each midterm exam, which consists of two parts as written and spoken exam. Since the intervention continued four months and the participants participated in two modules, the grades the participants got from the four midterm exams were used with the intent of exploring the influence of brain-based learning on participants’ proficiency in English.

Semi-Structured Interview

Subsequent to the completion of the brain-based learning intervention, and the findings yielded from the analysis of the participants’ scores on the midterm exams, a semi-structured interview consisting of four questions was carried out with the participants in the experimental group participants so as to explore in what ways the brain-based learning intervention aided the experimental group in achieving more improvement in English language proficiency as opposed to the control group. The questions in the interview were read by two experts on brain-based learning to ascertain the validity of the questions posed in the interview.

Data Analysis

The grades students got from the four midterm exams were analysed by running one-way ANOVA to investigate if or not there existed a statistically significant difference as for the participants’ proficiency level which could stem from the kind of the training the participants received in each group. Content analysis was conducted for analysing the data gathered via the semi-structured interview. In order to ascertain the credibility of the qualitative strand of this study, which is one of the most noteworthy factors to ensure the trustworthiness of the study according to Lincoln and Guba (1985), peer debriefing and member checks were used. With regard to peer



debriefing, the researcher exposed herself to a disinterested person with an eye to “exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer’s mind” (Lincoln & Guba, 1985, p. 308). In terms of member checks, as suggested by Merriam (1995), the researcher had informal conversations with the experimental group during which they found opportunity to read the transcripts of the interviews and the interpretation of the data to ensure the transcripts and interpretations truly reflected what they had in their minds.

Procedure

At the outset of the study, the proficiency level of the participants was determined with reference to the results of the proficiency exam and the students were randomly placed in one of the two classes where students at B1 level studied. Likewise, the researcher was also randomly assigned to one of the classes in which she implemented the brain-based learning intervention. The other class functioned as the class whose performances on the midterm exams were compared to those of the experimental group. The participants in the experimental group were exposed to the brain-based learning intervention for four months while the control group participants were taught in accord with the programme prepared by the school. The students at B1 level were required to take 21 hours of English lesson every week. The skills were taught in an integrated way except a separate three-hour-writing lesson. The lessons conducted in the experimental group were designed according to brain-based principles proposed by Caine & Caine (1994) as these principles were comprehensive, and would serve for exploring to what degree brain-based learning could affect participants’ improvement in their English language proficiency.

Aside from implementing brain-based learning principles in lessons, the researcher had regular meetings with the instructor teaching the control group on the issues of how she conducted lessons. The minutes of the meetings indicated that the instructor merely followed the selected coursebook and used the materials provided by the materials development unit of the school. The participants completed two modules till the end of the study and took two midterms at B1 level and two at B2 level. All the participants of this study passed B1 level and had the right to study at B2 level. At the end of four months marking the completion of the intervention and quantitative analysis of the participants’ scores on midterm exams, the semi-structured interview was conducted with all the participants in the experimental group. Each interview lasted 15-20 minutes. The researcher recorded the responses of the participants whilst they were answering the questions.

Findings

Findings Concerning the Midterm Exams

Table 1 below illustrates the statistical values obtained from the descriptive analysis of the scores the participants got from the midterm exams.

Table 1. Descriptive results of the midterm exams

Group	M1			M2			M3			M4		
	N	$\bar{x}$	S	N	$\bar{x}$	S	N	$\bar{x}$	S	N	$\bar{x}$	S
Experimental	21	75,04	8,29	21	72,57	8,21	21	81,12	6,02	21	80,67	6,51
Control	20	76,19	7,06	20	69,31	6,87	20	69,71	7,07	20	66,74	6,57

As shown in Table 1, the average grade the experimental and control group had in the first midterm exam is almost equal to each other, 75,04 and 76, 19 respectively. The average grade of the experimental and control group from the second midterm is slightly different from each other though the average grade of the experimental group is higher than that of the control group. Table 1 demonstrates that the difference between the average grade of the experimental and control group in the third midterm exam is higher than those in the first and second midterm exams, as the average grade of the experimental group is 81,12 whereas it is 69,71 for the control group. The average grade of the experimental group pertaining to the fourth midterm is 80,67 whilst it is



66,74 for the control group. The values presented in Table 1 suggest that the participants in the experimental group outperformed the control group in the second, third and fourth midterm exams.

Table 2 given below shows the statistical values obtained by running one-way ANOVA to seek an answer to the research question of if or not there is a statistically significant difference between the experimental and control group in their scores on the four midterm exams.

Table 2. Anova results of the midterm exams

Sources of Variance	Sum of Squares	df	Mean Square	F	P
Between-Subjects	5,016.54	52			
Group	848,618	1	2,497,705	30,563	,000
Error	4,167,922	51	81,724		
Within-Subjects	8,839,678	159			
Midterm exams	743,364	3	247,788	6,124	,001
Group*Midterm exams	1,959,227	3	653,076	16,139	,000
Error	6,191,087	153	40,465		
Total	13,856,218	211			

As could be seen in Table 2, the p value for between-subjects factor, 000, indicates a statistically significant difference between the experimental and control group. The p value belonging to the within-subjects midterm exams factor, 001, means that a statistically significant difference exists between midterm exam results of the participants regardless of the group in which they were taught. The p value of the midterm exam results by group provides information about whether or not there is a statistically significant difference in the changes between the midterm exam results of the experimental and control group. Since the p. value is ,000, a statistically significant difference in the common effect of the repeated measures of the midterm exams and the group the participants were taught on the participants' midterm exam results is observed. This shows that the group in which the participants took lessons has an effect on their performance on the midterm exams. The mean values belonging to the experimental group displayed in Table 1 indicate that the experimental group outperformed the control group on the second, third and fourth midterm exams.

Findings as to the semi-structured interview

In the interview, the participants in the experimental group were asked to share their ideas about whether or not the brain-based learning intervention was useful for them to improve their proficiency level in English. All the participants stated that they found the intervention useful in terms of improving their proficiency in English. Table 3 below presents the themes, codes and the number of times the codes were mentioned, obtained from the content analysis of the views of the participants regarding why the brain-based learning intervention was useful for them.



Table 3. Reasons for the effectiveness of the brain-based learning intervention

Theme	Code	Frequency
Optimal learning environment	Comfortable learning environment	20
	Less threatening learning environment	11
	Improvement in speaking	10
Enhancing learning	Increases motivation	19
	Taking control of learning	15
	Enhances retention	9
	Increases concentration	5

As depicted in Table 3, the first theme emerging after the coding process of the participants' responses pertaining to the reasons underlying the effectiveness of the brain-based learning intervention is optimal learning environment. The most frequently stated code ($f=20$) leading to the emergence of this theme is comfortable learning environment. That is to say, all the experimental group participants, except one, expressed comfortable learning environment enabled by the implementation of brain-based learning principles as one of the reasons while expounding the effectiveness of brain-based learning. Extract 1 below is taken from one of the participants' responses stating this reason.

Extract 1: *Our lessons were done in a home-like environment. We were free to choose our seats and partners we wanted to study with. We had the chance to listen to music with different tempo. When we made mistakes even silly mistakes, our teacher was very understanding. There was a friendly learning environment.*

The second commonly emerged code ($f=11$) is the non-threatening learning environment created by virtue of the brain-based learning intervention. Improvement in speaking skill was coded in the content analysis of the answers of 10 participants, one of which is given in extract 2 below

Extract 2: *I have always wanted to improve my speaking skill. I believe I have achieved a big improvement in my speaking skill this year. I was comfortable in lessons, and because of this, I could improve my speaking skill.*

The second theme identified from the responses of the participants is enhanced learning to be accomplished by implementing brain-based learning principles. The most frequently created code under this theme is increased level of motivation ($f=19$) induced by the brain-based learning intervention. Extract 3 presented below belongs to one of the 19 participants putting forth this reason so as to clarify their conception of improved motivation realized by applying brain-based learning principles.

Extract 3: *Brain-based lessons increased my motivation because in the past I used to think that I wouldn't learn English, but now I see I can learn English and this really motivates me to study harder.*

Being able to take control of learning ascertained by the intervention in brain-based learning was the second most widely developed code ($f=15$) which led to the emergence of the second theme. An overwhelming number of participants expressed that as a result of attending lessons planned according to brain-based learning principles, they could take control of their own learning. As seen in Table 3, another code ($f=9$) contributing to the creation of the second theme is knowledge retention, and boosted concentration is the last code with a frequency of 4.



Another question asked in the semi-structured interview was about whether the participants had any intentions in regard to continuing using brain-based learning principles in the upcoming years of their academic education. All the experimental group participants stated that they would definitely go on applying brain-based learning principles. The following question in the interview was raised in order for the participants to explicate the rationale behind their disposition to continue improving their proficiency in English in the light of brain-based learning principles. Table 4 below illustrates the themes, codes and the frequency of codes uncovered during the content analysis of the collected data.

Table 4. Reasons for the intention to continue using brain-based learning principles

Theme	Code	Frequency
Enabling fun language learning	Boosting self-confidence	14
	Ensures enjoyment	11
Stimulating learning	Improves concentration	10
	Enables knowledge retention	9
	Improvement in proficiency	8
	Improvement in speaking skill	4

As presented in Table 4, the first of the two themes which emerged in the course of the content analysis is enabling fun language learning. The first code that led to the creation of this theme is boosting self –confidence (f=14). Extract 4 given below is taken from the responses of one of the participants putting forward this reason.

Extract 4: *I guess I lacked self-confidence about learning English in the past but now I really believe in myself. I am self-confident, I can learn English thanks to brain-based lessons that I have had this term.*

Another code contributing to the development of the first theme is ensuring enjoyment with a frequency of 11. The second theme, as seen in Table 4, developed during the content analysis of the responses of the experimental group participants as to the reasons behind their desire to continue using brain-based learning principles is stimulating learning. The code with the highest frequency (f=10) leading to the development of this theme is improving concentration. Extract 5 below presents the ideas of one of the participants stating this reason.

Extract 5: *I had concentration problems both in lessons and while studying at home but it is easier for me now to concentrate on what I am reading or the task I am working on after taking brain-based lessons.*

Another code which brought about the theme of stimulating learning is enabling knowledge retention (f=9). Table 4 shows that nine of the interviewees stated that they would go on learning English according to brain-based learning principles in that for those participants, improvement in language proficiency could be achieved by studying in accordance with the implications of brain-based learning principles. Extract 6 is taken from the responses of one of the participants articulating this reason.

Extract 6: *I think brain-based learning helped me a lot to develop my skills, all skills because I enjoyed a lot in lessons and I was motivated to study more, and I started to get higher scores on the exams. Getting higher scores really motivates me a lot.*

Table 4 also displays that the last code with the frequency of 4 serving the emergence of the second theme is improvement in speaking skill. While nine participants articulated that learning English in line with brain-based learning principles led to development in their overall language proficiency, four of the experimental group participants emphasized the improvement in their speaking induced by the intervention.



Discussion

The findings of this study revealed that being exposed to the brain-based learning intervention could prompt notable improvement in English language proficiency in contrast to being devoid of the intervention, bearing in mind the results obtained from the quantitative analysis of participants' scores on the four midterm exams. The results of this study are congruent with the findings of the study conducted by Huang (2006) as in that study, teaching embracing brain-based learning strategies resulted in an increase in college-level students' achievement levels in English. The results of this study also appear to be parallel with the findings of the research undertaken by Başı (2010) in that the findings reported that the experimental group subjected to brain-based lessons outperformed control group participants taught English traditionally in the post-test. Another research demonstrating similar results to the ones in this research, as for the improvement resulting from the brain-based learning intervention is done by Cowan (2009). This study reported that being taught in accord with brain-based learning principles led to development in elementary-level students' reading skills. The research carried out by Hoge (2002) presents similar results as well inasmuch as brain-based lessons ended up with improvement in elementary-level students' literacy skills.

Though the aforementioned studies indicate significant achievements on the part of the students taught in the light of the implications of brain-based learning principles, the literature entails research revealing no statistically significant difference stemming from being exposed to an intervention in brain-based learning, one of which is the research conducted by Blackburn (2009). In that study, the results yielded no statistically significant difference between the reading proficiency of the experimental and control group. Contrary to the results obtained in this study, the study done by McNamee (2011) is another one reporting no statistically significant difference between the reading proficiency of the experimental and control group consisting of second graders. The researcher of that study drew the attention to insensitive assessment measures as expounding no difference between the reading proficiency of the experimental and control group. Another study revealing contradictory results with those in this study is carried out by Getz (2003). In that study, the brain based learning intervention provided to the experimental group did not result in a statistically significant difference in the development of writing skills of the experimental group comprised of college-level students.

Other than searching for an answer to the question of if brain-based learning intervention leads to a statistically significant difference with respect to improvement in English language proficiency between the experimental and control group, this study also aims at uncovering experimental group participants' perceptions of the brain-based learning intervention. Taking into consideration the codes and the themes emerged from the content analysis of the data obtained from the semi-structured interview, the findings appear to be plausible because optimal learning environment, fun language learning, and enhanced learning are likely to culminate in more improvement in English language proficiency. In addition to the themes, the codes creating them might make the picture about enhancing proficiency in English clearer. Now that a comfortable and non-threatening learning environment could be established, motivation may be increased, learners could act autonomously, concentration is likely to increase, knowledge retention might be enhanced, self-confidence is promoted in brain-based lessons, there is of a higher degree of probability that students instructed in agreement with the implications of brain-based learning principles achieve more enhancement in proficiency in English. The findings in relation to the perceptions of the participants regarding the intervention in brain-based learning parallel the findings of the study undertaken by Weimer (2007) because the participants in both studies have positive views on the effectiveness of brain-based lessons.

Conclusions

This research was carried out in order to explore the influence of the intervention in brain-based learning on tertiary-level students' proficiency level in English. The results of the study indicate a statistically significant



difference in the English language proficiency of the experimental group taught in accordance with brain-based learning principles for four months and the control group taught according to the traditional programme of the school. The participants in the experimental group had positive perceptions concerning the intervention in brain-based learning. The semi-structured interview held with the experimental group participants showed that applying brain-based learning principles in English lessons brings along a range of outcomes having been sought for a long time in teaching English to EFL learners of any age group. One of these outcomes is setting up a comfortable learning environment, without which learning is likely to be impeded. Knowledge retention, higher level of concentration, and learner autonomy are the other outcomes produced by being taught in brain-based English lessons. Acknowledging the fact that success in EFL learning unequivocally lies in the efforts of the students taking control of learning process, possessing high levels of concentration and knowledge retention, the findings reported in this study might prompt further research examining whether brain-based learning impinges on students' proficiency level in English.

Recommendations for further research

Further research may be carried out to investigate the effect of brain-based lessons on language skills separately. The participants in this study were tertiary-level students, yet a number of other studies could be dedicated to exploring the influence of language teaching tailored in line with brain-based learning principles on primary and secondary level students. In addition, studies could be conducted to investigate whether or not gender plays a role in the extent to which students benefit from an intervention in brain-based learning.

References

- Baş, G. (2010). Effects of brain based learning on students achievement levels and attitudes towards English lesson. *Elementary Education Online*, 9(2), 88-507.
- Blackburn, C. A. S. (2009). *The effect of brain-based instructional techniques on the reading skills of elementary school students*. Unpublished Doctoral Dissertation, Walden University, Minneapolis.
- Caine, R. N., & Caine, G. (1994). *Making connections: Teaching and the human brain*. New York: Innovative Learning Publications.
- Caine, R. N., & Caine, G. (2000). 12 brain/mind natural learning principles. Retrieved February 12, 2018, from <http://www.cainelearning.com/wp-content/uploads/2018/04/12-Brainmind-principles-expanded.pdf>.
- Connell, D. (2009). The global aspects of brain-based learning. *Educational Horizons*, 28-39.
- Cowan, W. (2009). *Brain-based reading model for students who struggle with reading*. Unpublished doctoral dissertation, Walden University, Minneapolis.
- Creswell, J. W. (2013). *Qualitative inquiry & research Design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: SAGE.
- Freeman, G. G., & Wash, P. D. (2013). You can lead students to the classroom, and you can make them think: Ten brain-based strategies for college teaching and learning success. *Journal on Excellence in College Teaching*, 24(3), 99-120.
- Getz, C. M. (2003). *Application of brain-based learning theory for community college developmental English students: A case study*. Unpublished doctoral dissertation, Colorado State University, Colorado.
- Gura, T. (2005). Educational research: Big plans for little brains. *Nature*, 435(7046), 1156-1158.
- Hart, L. A. (1983). *Human brain and human learning*. Arizona: Books for Educators.
- Hoge, P. T. (2002). *The integration of brain-based learning and literacy acquisition*. Unpublished doctoral dissertation, Georgia State University, Georgia.
- Huang, H. Y. (2006). *Brain-based strategies used to teach English as a foreign language (EFL) in Taiwan high schools, colleges, and universities*. Unpublished doctoral dissertation, Spalding University, Louisville.
- Jensen, E. (1995). *Brain-based learning: The new science of teaching and training*. Thousand Oaks, Calif.: Corwin Press.
- Jensen, E. (2000). Brain-based learning: A reality check. *Educational Leadership*, 57(7), 76-80.
- Kaufman E. K., Robinson, J. S., Bellah, K. A., Akers, C., & Haase-Wittler, P. (2008). Engaging students with brain-based learning. *Connecting Education and Careers*, 83(6), 50-55.
- Lincoln, YS. & Guba, EG. (1985). *Naturalistic Inquiry*. Newbury Park, CA: Sage Publications.



- Lucas, R. W. (2003). *The creative training idea book*. New York: American Management Association.
- McNamee, M. M. (2011). *The impact of brain-based instruction on reading achievement in a second-grade classroom*. Unpublished doctoral dissertation, Walden University, Minneapolis.
- Merriam, S. (1995). What can you tell from an N of 1? : Issues of validity and reliability in qualitative research. *PAACE Journal of Lifelong Learning*, 4, 50-60.
- Sousa, D. A. (2001). *How the brain learns* (2nd ed.). California: Corwin Press, INC.
- Tashakkori, A., & Teddlie, C. (Eds.). (2003a). *Handbook of mixed methods in social and behavioral research*. Thousand Oaks, CA: Sage.
- Weimer, C. (2007). *Engaged learning through the use of brain-based teaching: A case study of eight middle school classrooms*. Unpublished doctoral dissertation, Northern Illinois University, DeKalb.



In Sustainable Management Real Option Theory

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Abstract

This research allows us to review and classify the real choice theory in sustainable management research. The research helps us identify the positive and negative effects of sustainable management, challenges and opportunities of real choice theory by examining options. It also explains the similarities between real choice theory and sustainable management and explains how to lead the way in a competitive environment. It also helps us to see the future situations by combining different approaches that have been developed on options. The GST helps to make sustainable decisions in uncertain situations. This study describes the formation of research groups in sustainable management and related departments. The GST develops recommendations on how to solve key problems in sustainable management and strives to balance the decision-making process between managers and decision-making. The research guides us to assess threats and opportunities in sustainable approaches using all three methods developed in GST, one of which helps us to see how one approach follows one.

Keywords: Sustainability, Growth, Administration

Introduction

This research analyzes GST opportunities in sustainable management research. The GST ensures the creation of market conditions and produces methods for the strategic path of direct and foreign investments. The GST application demonstrates how to evaluate investments and performances and how to compete against competitors. In the preparation of this study, three different approaches that emerged during the development of GST were utilized and how they followed each other was revealed. Here, basic issues such as the emergence of GST, when it is necessary, and its properties are described. A general link was established between GST and strategic management and general comments were made using different sources. The three main approaches in GST are; In GST, reasoning is divided into modeling and behavioral approaches and potentially affects the functioning of the GST. All three approaches develop independently and affect sustainable management.

Method

Method of the research literature review. In this study, literature was searched as a method. Practical and theoretical studies on real option theory have been brought together to find out how to follow sustainable growth. The real option theory is a good guide to what education spending is or should be.

Findings

1. Fundamentals of Real Option Theory

The term alternative constitutes the origin of theory rather than alternatives or possibilities, develops and tests relevant hypotheses. The option is a right and is not mandatory to carry out certain future operations at a certain



cost. The option is particularly useful in decision-making. In some organizational context, it provides a right in contracts (patents, joint ventures) or benefits in the choice of investment opportunities. The options that grant the company rights but do not give rise to an asymmetric situation. An example of this is the inability of the company to classify its losses as a result of an election. Myers (1997) developed the real option theory and envisaged the development of financial option theory in sustainable decision making. The real option is defined as the opportunity to buy real assets under favorable conditions. These positive terms depend on marketing costs, market power, or other factors in the current market. It is easily seen that sustainable management focuses on the firm's diversity and competitive advantage. In the case of a financial option, an investor who buys an asset has the right to take the credibility of that asset as well. However, the basic logic underlying real choice theory is that it 'is real'. Increasing cash flows of the company can lead to its growth through R & D planning, product development, patents and so on. effect. Depending on the terms of the contracts, the GST is traded up to real or tangible or intangible assets in the markets to which it is based. Real option theory is divided into several classes. The options, which are referred to as external sources and are subject to market demand uncertainties, are grouped under five headings:

- 1) Company considering entering into the target country by producing any goods
- 2) A company that plans to grow at a future date, including whether to buy stocks of different companies in the market
- 3) The company plans to expand the production to expand capacity or to outsource
- 4) To make the company multinational with the option to change inputs, outputs, suppliers and the like,
- 5) If the conditions are broken, it is classified as withdrawing the company or leaving the market by selling its technologies.

Most companies actually have a portfolio of options in these five categories. Since the company's application of these options in decision-making situations affects the values of the company, it should take these options into account in general decision-making. In other words, even if the company plans a schedule to enter the market, it must also afford options such as firm growth and technological development. As a matter of fact, these values are influenced by other factors.

Previous investments and activities shape the company's knowledge on these issues and become an effective factor if the company decides on these areas again.

Another term, the shadow option concept, suggests that the opportunities and opportunities that a company can create with its talent and resources should be put forward and appreciated. Firms that do not have early investment opportunities or do not follow the opportunities related to investments may not be able to access this investment even if they want to make the same type of investment in the future or it may be impossible to make such investment under the same conditions.



Since options related to real assets are evaluated in many respects, they affect the value of different pillars and the investment decision of the company.

2. Approaches in GST

Three different approaches to GST in sustainable management have been developed. These theories help us to better understand GST;

1. Problem configuration - reasoning; It is also called real options logic, which is based on logic and heuristics and offers real choices as a way of thinking by managers. This approach demonstrates various strategic management decisions and examines the options, timing, connections and uncertainties in a strategic framework.

2. Valuation and modeling; real option approach based on formal analytical (mathematical or simulation) models for value options and generating hypotheses for research. This model essentially includes the collection of primary data inputs to provide discounted cash flow estimation (DCF) and determination of the company's net present value (NPV). After these data are collected, the model continues to be used with different analysis or simulation methods.

3. Application planning - behavioral approach; behavioral perspectives focusing on the implementation of real options in organizations. After reaching a strategic investment proposal, a path is drawn up by preparing a plan for deciding which of these options under different conditions and developing an appropriate working policy.

Each of these stages is a set of challenges and opportunities for the company to gain value. They are becoming a cycle in itself. These four basic lifecycle phases, which are similar to product development processes in high-tech firms in particular, can be described as follows: 1) Defining a hidden option, 2) Creating a basic or extended real option by searching, gathering information and obtaining or editing the necessary resources at a cost, 3) to manage, maintain and strengthen the actual option by applying the necessary protection or improvement costs; 4) to adopt the real option.

a) Real Option Reasoning

Most of the strategy literature sees GST as strategic and intuitive thinking, creating and adopting options. GSM captures hypotheses that depend on verbal rules without the help of analytical modeling.

Given the difficulties of correctly matching the theory of financial options to real investment decisions and the many complications in evaluating the real options highlighted earlier, it is natural that GSM is widely used in the strategy. GSM is very suitable for defining and synthesizing the actual option value, even if options cannot be formally evaluated. GSM offers organizations a variety of ways to help them make strategic investment decisions better under uncertainty.



b) Real Option Valuation or Modeling

There are basic assumptions in formal modeling of real options. These; being certain and transparent, presenting new theoretical relationships with comparative statics and numerical analysis, and providing simulation. Mathematical or simulation models are useful as a tool for proposing and developing comparative static analyzes and encourage the development of this research within strategic management. Despite such important and strengths, there are disadvantages to this approach. For example, mathematical modeling is based on a number of assumptions that would hinder the implementation of the GSD model. In other words, it is sometimes time for modeling scholars to move away from organizational reality.

c) Behavioral Perspectives on Real Options

This approach aims to relate to organizational realities and draw attention to the human or behavioral nature of management. It is stated that the application of GST is limited if the necessary conditions such as the existence of real life frictions, organizational flexibility and application flexibility and decision flexibility and information accuracy cannot be provided. If there is a lack of information about the value of an asset at the time of decision, managers are investing less in good opportunities and over-investing in bad projects. These restrictions naturally pose practical difficulties in the effective management of real options. The GST adopts these behavioral assumptions in order to better connect with existing behavior strategy research. Investigating the effects of limited rationality, lack of knowledge and behavioral inaccuracies is prioritized in research on the implementation of real options.

3. Real Option Theory

1) Firm heterogeneity and the nature of competitive advantage

On a sustainable basis, it is to investigate issues such as firm behavior, organizational performance outcomes, and heterogeneity in terms of competitive advantage. The heterogeneity of resources is defined as the main reason why firms make a difference in profitability and survival. Knowledge, competence and learning are at the heart of the capabilities that enable the company to take advantage of new opportunities. By focusing on the firm's investment opportunities and information that is specific to the firm, GST helps us to understand why this difference exists and what gives the firm advantages in situations of uncertainty.

2) Organization and management model options

Managers determine four ways how to provide or distribute the resources needed to achieve growth, one of the company's strategies: 1) buy (sell) or take over (deactivate), 2) internal development 3) leasing, contract 4) sharing / allied. Purchasing is carried out on both the buying and selling sides. Other modes (leasing / contracting or sharing / allied) are often more preferred in strategic use of external resources through cooperation with other firms. A firm can buy or contract another company's technologies to fill gaps in its technological portfolio or to further develop its own resources.



4. Challenges in Strategy Theory

Although GST makes good investment decisions in terms of finding resources in firms, the strategy needs to master the basic assumptions in order to become theoretical in the field of strategy.

In this table: Why do firms differ in the creation, recognition, or use of options? Why do they fail in some cases despite the choice of valuable growth options? Or do they sometimes succeed when such opportunities are limited? How can ideas be generated to make more efficient use of these growth options by authority rights and internal resource allocation? What are the defining characteristics of the firm's real option-based view and how can existing theories complement each other?

Unlike traditional industrial organization economics and game theory approaches that assume business environment and firm responses are predictable, various theories used in strategic management recognize that the business environment is unclear and unpredictable, acknowledging that there are limited rational managers and are capable of predicting and planning future prospects. Uncertainty is a key driver that separates the firm's alternative views and its consequences for strategic investment. There are also differences between theories in terms of focusing on cost-effectiveness, knowledge, learning and the role of decision-making flexibility. GST approaches all of these factors in a comprehensive manner and therefore has the potential for significant integration with other theories focusing on aspects of firm investment and decision making in the event of uncertainty.

a) Role of Management in GST and Organizational Facts Many sustainable management research uniquely enriches the practical application of GST, taking into account human traits and cognitive innovations, managerial incentives, reward structures, control systems, operational routines and entrepreneurial culture. All of these affect the success of sustainable investments of firms. Cognitive constraints such as thoughts and habits, attitudes, validation biases, pessimism and uncertainty, or behavioral biases can be included in the subjective judgment to make this option more valuable. How can organizations better solve creativity and uncertainty? Different managers or CEOs should be able to anticipate the appropriate risk for different organizations, different industries and firms to identify, create and use their real options more effectively, and develop appropriate portfolio for the life stages of options for innovation and incentives.

b) Integration between real option approaches

Since creating or purchasing flexibility is usually cost, it is necessary to consider these options to see that the cost of flexibility benefits exceeds the total cost. The value of an individual project needs to be considered within the broader strategic and organizational context. Therefore, these contributions should be utilized by going beyond qualitative and quantitative discussions and bringing together different GST approaches. The more strategic use of ROR as a framing tool, the clear balance of organizational realities, constraints and implementation issues, such as an analytical valuation / modeling methodology, should be determined. In order



to assess the gaps between theoretical and practical, to identify the sources of these gaps and to identify the descriptive and normative value of a more integrated GST, it is necessary to complete and further examine the GST approaches. As the field evolves, a more unifying approach, including important organizational facts, is needed for better integration of qualitative and quantitative approaches.

c) Future research designs This theory encourages the use of new methodologies, a greater focus on the individual project level from the business unit and strategic perspective, and the collection of more basic data on individual real options. First, new methodologies such as laboratory experiments, simulations, fieldwork and surveys provide useful data to existing evidence from secondary or large-scale empirical data, including investments made by firms. These methodologies are more appropriate to gather certain information about managerial decision-making and to make a real investment decision. Simulations assist portfolio choices in behavioral or managerial issues that may influence decisions with different options. A review of the analysis units in real option studies helps to advance strategy research on real options.

Results, Conclusions and Recommendations

This article examines the real option theory in sustainable management. In the research, it was shown that more studies and appropriate integrated methodologies should be adopted in order to bring sustainable ideas into individual case projects and business unit levels. Increased interest by researchers, taking into account behavioral and organizational facts and constraints, should be both strategic and valuation components. Future research should address the various stages of the actual option life cycle in organizations, while at the same time focusing on further analysis and expansion of the applicability of GST in management and organizations. Research should therefore be in the form of an organization and practice, rather than a dedicated valuation or purely strategic reasoning. Organizational processes require deeper thinking about managerial incentives and control systems and behavioral methods. Government expenditures should also be well planned to ensure sustainable growth. In order to ensure sustainable growth, especially in the education sector, it is important that the state develops a strategy in advance. This theory also provides a good option for government expenditures and investments.

References

- Amram, M. and N. Kulatilaka, 2000. Strategy and Shareholder Value Creation: The Real Options Frontier, Bank of America. *Journal of Applied Corporate Finance*, 13(2): 8-21.
- Boer, F.P., 2000. Valuation of Technology Using "Real Options". *Research Technology Management*, July/August: 26-30.
- Cox, J., S. Ross and M. Rubinstein, 1979. Option Pricing: A Simplified Approach. *Journal of Financial Economics*, 7 (2): 229-264.
- Hull, J.C., 1997. Options, Futures and Other Derivatives Securities. 3rd ed. Prentice Hall: New York. 170.
- Kogut, B., Kulatilaka, N. (2001): Capabilities as Real Options, *Organization Science* 12, p. 744.
- Lint, O. and E. Pennings. R&D as An Option on Market Introduction. *R&D Management*, 28(4): 279-287.
- Luehrman, T.A., 1998. Strategy as Portfolio of Real Options. *Harvard Business Review*: 89-99.
- Ilkin Mammadov, Yusif Aliyev, Turan Ahmedov, Modern Yatırım Aracı Olarak Egzotik Opsiyonlar ve Türleri, TURAN: Stratejik Araştırmalar Merkezi, volume 8, Issue 30, p. 258.
- Maritan, C. A., Alessandri, T. M. (2007): Real Options, and the Resource Allocation Process, *Advances in Strategic Management* 24, *Capabilities*, p. 307.



- Miller, L. T., Park, C. S. (2002): Decision Making Under Uncertainty – Real Options to the Rescue?, *Engineering Economist* 47, p. 105.
- Mitchell, G.R. and W.F. Hamilton, 1988. Managing R&D as a Strategic Option. *Research Technology Management*: 15-22.
- Myers, S. – Turnbull, S. M. (1977): Capital Budgeting and the Capital Asset Pricing Model: Good News and Bad News. *The Journal of Finance*, 32:2, pp. 321-333.
- Myers, S. C. (1984): Finance Theory and Financial Strategy, *Interfaces* 14, p. 126.
- Myers, S.C., 1977. Determinants of Corporate Borrowing. *Journal of Financial Economics*, 5: 147-175.
- Silva, J.T.M., L.A.A. Teixeira and L.C. De Paula, 2012. Analysis of the Acquisition Process of a Autoparts Company Using Discounted Cash Flows and Real Options Models. *Contemporary Perspectives*, 7: 11-43.
- Trigeorgis, L., 1996. Real Options: Managerial Flexibility and Strategy in Resource Allocation. Cambridge, MA: *The MIT Press*.112.



Continuous Development of ICT Competence on the Example of the Personnel Department in the Banking Sphere of Azerbaijan

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Abstract

Today, lifelong education of personnel is the process of formation of each employee's high professionalism, modern economic thinking, ability to work in economic relations. In this article, the authors explore the impact of Information Technologies' (IT) implementation into the work of human resource departments for increased effectiveness. Modern relations at the enterprise require the most important network-based enterprise's unit that is to be a strategic, flexible, cost-effective and service-oriented division of the organization. The authors use the experience and initiatives of enterprises and national banks to show the implications of the implementation of IT in Human Resources Management (HRM). Although the influence of IT on HRM has been a focus of scientists' attention, no empirical research has been conducted in this area in Azerbaijan. Obtained data show that IT is not widely used in organizations to perform HRM functions in the dynamic economy of Azerbaijan. The results also show that, while IT should have a certain impact on all sectors in terms of HRM, the used IT types vary considerably in recruitment, maintenance, and development tasks.

Keywords: Lifelong Education, HR Effectiveness, Recruitment Needs, Maintenance and Development Tasks, Management and Planning Tasks

Introduction

In the workplace, the functions of the organizer of lifelong education of personnel are carried out by training units or the staff divisions. Continuing education of personnel includes professional development, secondary vocational guidance or retraining. Most forms of advanced training are associated with specific changes in technology and information and communication technologies (Ahmadov and Aslanova 2017: 72).

The rapid development of IT, as well as their implementation in all spheres of human life in recent years, has led to a dramatic expansion of information interpretability. It is impossible today to imagine an enterprise space without IT (Ferratt et al., 2005).

Enterprise-wide information systems is an organizational streamlined, interconnected set of techniques and methods used for storage, processing, and dissemination of information for the achievement of the desired objectives. Such an understanding of an information system involves the use of special computer engineering and communication tools as basic technical means of information processing for implementation of specific processes at enterprises (Agarwal & Ferratt, 2001).



The creation of an information system assumes that the basic operations of accumulating, storing and processing information are assigned to computing equipment, while the professionals perform only a certain part of manual operations or accomplish procedures that require a creative approach in preparing management decisions (Eddy et al., 1999). At the same time, computing equipment works in close cooperation with specialists who control its actions, change the values of separate parameters in support of operational objectives, and enter input data for meeting challenges and management functions (Klein et al., 2001).

This study is devoted to the analysis of IT used in the personnel departments of commercial enterprises and several banks in Azerbaijan. The study aims to highlight several issues:

- What technologies in personnel management do enterprises and banks in Azerbaijan use?
- Does IT of personnel department facilitate the overall efficiency of enterprises and banks?
- Are there any differences in the impact of IT on national and international banks in Azerbaijan?
- Would IT of personnel department be able to influence the organizational performance of banks in Azerbaijan?

The study is prepared in four main parts. The paper first provides a review of the literature. In the second part, the methods used are described and explained. The third part is devoted to the analysis of empirical results. Finally, in the fourth part, the study concludes the consequences of the introduction of IT in HRM.

Research methods

The research aims is to determine the extent to which the organization's work capacity is influenced by lifelong training presented for all categories of personnel in terms of advanced training in the field of IT, and how modern IT is involved in the effective functioning of enterprises.

The objective of the presented research is clarifying the influence of IT on personnel support at an appropriate level and the improvement of professional qualifications, the impact of technology on the acquisition of professional knowledge outside the core business, the development of planning and organization skills using software products. **The work is performed within the framework of the methodology**, assuming analytical methods that are formed from data obtained as a result of observations, questionnaires, surveys, collection of the necessary primary documentation.

Several Azerbaijani state and private banks were taken as an object of study and the impact of lifelong education in the field of increasing ICT competence to improve the effectiveness of organization management was investigated.

The paper presents the results of the influence of IT investments on return on human capital in the banking sector. **The analysis techniques of this research** are using information flows (mainly cash flows) of a small dimension at the micro-level, to identify the overall structure and functions of the management system, as well as to improve existing information flows.

Impact of IT in HRM on the example of international and local banks in Azerbaijan

As authors have already noted, information technologies expand management capabilities when working with personnel; the banking sector is not an exception.

The main method of data collection for this section of the study is semi-structured interviews with HR directors of selected national and international banks. These interviews made it possible to collect information about personnel technologies in banks and the level of IT development in HRM. Return on investment in the staff of each bank is calculated to count the effectiveness of personnel.

It is also expected that IT in HRM affect the efficiency of personnel management, which positively correlates with the organizational results of banks. To test this hypothesis, it is necessary to compare the results of the organizational activities of selected Azerbaijani banks. There are many different studies on the impact of IT in HRM on the bank performance (Fethi & Pasiouras, 2010). Our research is focused on HR analytics of selected banks and comparison of results.

Next, an overview of HR technologies in selected banks is presented below.



The authors interviewed the responsible persons of the international bank VTB, the state-owned International Bank of Azerbaijan (IBA) and the private banks Kapital Bank and the Bank Respublika (Ahmadov and Abdulova 2019:47).

According to interviews with the heads of personnel departments, in all HR departments of the above-named banks, there is a payroll division, a division for development, promotion, and release of employees, a division for relations with trade unions and public organizations. Kapital Bank also has a personnel analysis division. In the Bank Respublika, there is an unspoken rule under which whatever the reason for dismissal (staff reduction due to production automation, desire for professional growth, or just wanting to change of scenery), an employee who left his place is not accepted back. According to the results of the study, the authors concluded that only the Human Resources Management Department of Kapital Bank is involved in marketing and in building financial budget and strategy as a whole. This department supports line manager staff and employees and interacts with managers as business consultants. In the remaining banks, HR representatives are responsible for operational processes in the field of personnel management and do not act as strategic business partners. In all these banks, candidates can apply online to the bank's website. The Bank Respublika is an exception, where 10% of applications comes at the email address of the HR department.

The functionality of modern personnel services is constantly changing, along with their names, reflecting the specificity and level of penetration into the internal affairs of an enterprise. The interviewees of all organizations confirm the impact of HRM on all processes of the enterprise. The ramified structure of VTB's HR department is responsible for communication with managers, regulates the human resources of the bank, for example, graduate recruitment, hiring experienced employees, relations with employees, their training and development, etc. HR managers communicate directly with managers of other departments, provide their personnel requirements and consult based on discussions with expert centers.

Many HR functions are automated by software solutions. As the interlocutors noted, in most cases each HR area is supported by a specific technological platform. In Kapital Bank, the Learning and Educational System administer the training and development; Graduate Recruitment System supports the recruitment, the remuneration of employees is also controlled by the automated system. In addition to the mentioned information technologies systems, the International Bank of Azerbaijan has a database that covers all records of employees from their recruitment upon retirement. These data cover personal information, qualifications, employee performance figures, vacation reports, salary information, etc.

Still, the main areas covered by the personnel departments of the banks under survey are personnel documentation and administration tasks by developing Azerbaijani legislation, and hiring and benefits management (Guliyeva & Rzayeva, 2019). It also shows poorly developed information systems in the field of personnel management in Azerbaijani banks.

Further, based on the formulas, the relationship between HR efficiency and performance of banks upon application of IT will be described; indicators of personnel management excellence, cost of human capital and efficiency of banks will be calculated. All necessary data were collected on the websites of the respective banks or in the process of interviews with responsible persons.

Now a few words about the general indicators of the economic efficiency of personnel service (Kesti & Syväjärvi 2015). The HC ROI (Human Capital Return on Investment) indicator in various HR spheres demonstrates the effectiveness of investments, calculates the results of return on investments in personnel. This indicator is calculated by the formula:

$$HC ROI = (Revenue - (Expenses - Compensations)) / Compensations$$

This method of evaluation is quite time-consuming. In the calculations, it is necessary to take into account not only the cost of a specific event, but also indirect costs associated with it, but the most difficult is a calculation of income from the event held in the field of personnel management. As indicated by Bontis and Fitz-enz (Bontis & Fitz-enz, 2002), HC ROI is equal to the value-added of investments in an organization's human assets. The numerator in this metric is the profit adjusted for the cost of people. The higher the HC ROI, the more effective the personnel management in the bank.



The main indicator of employee productivity is human capital income (HCRF – Human Capital Revenue Factor) - the ratio of the total income by the indicator of employees working full-time (FTE – Full-time Equivalent):

$$\text{HCRF} = \text{Income} / \text{FTE}$$

It should be noted that this indicator is rapidly becoming obsolete.

The cost of human capital (HCCF – Human Capital Cost Factor) shows the proportion of staff costs in circulation and is calculated by the formula:

$$\text{HCCF} = \text{Total Staff Costs} / \text{Turnover}$$

The profitability of the "average" employee of the organization shows the indicator of HCVA (Human Capital Value Added):

$$\text{HCVA} = \text{Income} - (\text{Costs} - \text{Salaries and Bonuses}) / \text{FTE}$$

The results of the calculations, as well as a summary of interviews with the personnel directors of four banks, are presented in table 1 below.

Table 1. Results of the calculations related to employee productivity*

	Local private Kapital Bank	Local state IBA	Local private BR	International Bank VTB
Number of Employees	2700	1800	1050	300
HR Technology	SAP	Specific HR technology applications developed by other bank headquarter	Specific HR technology applications developed by other bank headquarter	Specific HR technology applications developed by other bank headquarter
Number of HR Professionals	20	20	11	9
HC ROI	5,824151021	1,107982414	3,118410596	14,68444615
Employee Expenses/Headcount	48641,07143	96123,33333	1076,190476	9894,033333
Revenue/ Headcount	188584,5238	112402,2222	22780	41493,66667
HCRF	56452,38095	447780	12739,04762	24416,66667
HCCF	0,153824545	1,341210138	0,031564865	0,00522168
HCVA	168952,381	167033,8889	22422,85714	31816,3

Source: Authors' calculations

*The data for calculations are collected on the official website of respective banks

The data presented in the table demonstrate that the international bank VTB has a higher return on human capital from investments. HC ROI, equal to 14.6, means that one monetary unit invested in the human capital of the bank returns 14.6 monetary units. Indicators of Azerbaijani banks demonstrate somewhat lower efficiency. The ratio of income and expenses of employees shows that an international bank spends more money on its employees as compared to national banks. Since the level of development of HR technologies at the international bank is higher, and the efficiency of personnel management, as well as performance indicators, is better, a correlation between IT HR and personnel management efficiency can be observed.

Suggestions

The essence of the new technological revolution coming in the global business and banking system is to increase the yield of business due to its knowledge, qualification of personnel and technology.

Banking in its present form is quite new for the economy of Azerbaijan, and it is also rapidly changing. Apparently, for this reason, banks have not yet had enough time for any specific form of the so-called near



banking space, to which we refer to institutions of lifelong education. The part of the vocational education system, which deals with the training of bank cadres, in its turn, was not well enough impregnated with the state of the banking system in order from a theoretical standpoint to identify possible trends and to propose personnel improvements in accordance with them. To find out who banks need today and will need tomorrow, a clearly formulated marketing strategy for the system of lifelong professional education is needed (Chetkinkaya, 2012). Efficient integration of a banking specialist into the process of practical training with real banking activity is impossible without the establishment of banking schools as economically independent, innovative educational institutions that maintain high-quality standards of banking learning in a dynamic and competitive educational services market. It is the organizational structures of the recipient of continuing education that should be primary in determining the main directions of training. In the Azerbaijani banking sector, for example, in recent years, growth in demand for bank employees occupied in the retail business, collaborators for branches, credit and cash offices, is still predicted (Hasanov, 2013).

Discussion

At present, the role of information technology in people's lives has significantly increased. Modern society is involved in the general historical process, called informatization. This process includes the development of the system of continuous education, the penetration of information technologies into production, public spheres, including banking systems.

The article analyzes the use of information technologies in banking management from the point of view of continuous personnel training. The study shows the importance of information models and technologies in management reveals the features of information management in the banking sector.

Despite the high values of indicators characterizing the duration of the training, the implementation of the principles of continuous education in Azerbaijan is difficult in practice. This is due to the lack of a lifelong education system (uniform regulatory framework for educational institutions, self-regulation and self-organization mechanisms), as well as a decrease in funding for this area, uneven access of the population to education throughout life, increasing the cost of educational services as people engage in professional activities, decreasing the economic return from education with age (demotivating factor of investing in adult education). However, according to many respondents, factors that impede professional development include the lack of free time, financial resources, as well as lack of initiative of employers and the lack of refresher training courses.

At the economic level, the possible reasons for this situation may be a lack of interest of funds from organizations to pay for courses or failure of technological changes in production. However, these assumptions require additional research to prove or disprove them.

Conclusion

A breakthrough in the development of information technologies have greatly simplified the work of commercial institutions, making the internal structure and relationship system more convenient for employees; enterprises themselves are more accessible and more comfortable for customers. In the commercial sphere, information technologies are used in various forms, as in any organization. The most necessary of them are technologies for internal interaction of personnel and management.

The article examined the impact of information technologies personnel management as a set of software and IT, analyzed how the use of software products in personnel management can improve the efficiency of enterprises.

The authors have built a model for using IT tools to perform various functions of personnel management in enterprises and banking sector. Based on the survey data, the results, firstly, showed that IT has a significant impact on all sectors in terms of management and planning tasks, and, secondly, the type of IT used varies considerably for recruitment tasks, as well as by functions of staff support and development. However, there is no standardization in integrating computer software into the core activities of HRM; there are no information systems in Azerbaijan that alone could cover the needs of a modern enterprise. Medium and large organizations usually operate at least a dozen multi-user systems. It can be explained by the gap between job requirements and the ability of employees to perform personnel management tasks. There are still problems with personnel in



terms of elementary computer illiteracy. The survey showed that not all enterprises have special HR software. Most likely, it is expected that this situation will continue soon.

In future empirical research, the possibilities of introducing new information technologies into personnel management processes should be explored to improve HRM in the direction of optimizing personnel costs and to strengthen the efficiency of enterprise management as a whole through the rational use of its intellectual potential. Even though in Azerbaijan there is an acute need for the use of modern personnel management system, insufficient attention is paid to the issues of staff case administrating by IT means on the part of supervisors.

References

- Agarwal, R., & Ferratt, T. W. (2001). Crafting an HR Strategy to Meet the Need for IT Workers. *Communications of the ACM*, 44(7), 58-64. doi:10.1145/379300.379314
- Ahmadov, F., & Aslanova, B. "azerbaycanda faaliyet gosteren isletmelerde kurumsal sosyal sorumluluk anlayisi: sorunlari ve cozum onerileri"(bankalar orneğinde). Kongre kitabı, 69.
- Ahmadov, F., & Abdulova, A. (2019). Impact of The Human Resource Department's Career Development Strategy to Companies Competitive Power; Azerbaijan. *JMDMA*, 1(2), 42-48.
- Cetinkaya, N. (2012). Continuing education in Black Sea Economic Cooperation Member States, Paper Work GA39 / CC37 / REP / 12 / r
- Eddy, E. R., Stone, D. L., & Stone-Romero, E. E. (1999). The effects of Information Management Policies on Reactions to Human Resource Information Systems: an INTEgration of Privacy and Procedural Justice Perspectives. *Personnel Psychology*, 52(2), 335-358. doi:10.1111/j.1744-6570.1999.tb00164.x
- Ferratt, T. W., Agarwal, R., Brown, C. V., & Moore, J. E. (2005). IT Human Resource Management Configurations and IT Turnover: Theoretical Synthesis and Empirical Analysis. *Information Systems Research*, 16(3), 237-255. doi:10.1287/isre.1050.0057
- Fethi, M. D., & Pasiouras, F. (2010). Assessing Bank Efficiency and Performance with Operational Research and Artificial Intelligence Techniques: a Survey. *European Journal of Operational Research*, 204(2), 189-198. doi:10.1016/j.ejor.2009.08.003
- Guliyeva, A., & Rzayeva, U. (2019). The Asymmetry of the Global Changes. *Economic Dynamics of Global Energy Geopolitics*, 142-166. doi:10.4018/978-1-5225-4203-2.ch008
- Hasanov, A. (2013). *Azerbaijan Banking Law (view from the outside)*, ISBN 992 0000000000
- Kesti, M., & Syväjärvi, A. (2015). Human Capital Production Function in Strategic Management. *Technology and Investment*, 06(01), 12-21. doi:10.4236/ti.2015.61002
- Klein, K. J., Conn, A. B., & Sorra, J. S. (2001). Implementing Computerized Technology: An organizational analysis. *Journal of Applied Psychology*, 86(5), 811-824. doi:10.1037//0021-9010.86.5.811



Accounting Education in the Universities and Structuring According to the Expectations of The Business World

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Abstract

One of the important factors shaping accounting education is the business world. Structuring of accounting education according to the expectations of the business world which will employ the graduates is an important issue and it is especially necessary in our country. Every year significant amount of expenditures are provided for education in Azerbaijan. In order to get even more efficiency from these expenditures, education system should be developed, updated and renewed. Developed countries meet the need for labor force by the business world with vocational training methods which are formed according to businesses' internal dynamics, by taking advantage of international experiences. Countries that implement their education based on university-business cooperation, only those who apply school-based education, and countries that adopt both approaches but are constantly in pursuit of achieving this goal through three different methods. (it needs to indicate the methods) The current education system in Azerbaijan is based on theoretical approach. Due to the expectations of the business world and the importance of modern accounting education, the specialization level of the graduates is expected to be brought to the standards of the business world who will employ them, by restructuring accounting education itself. In this study, we analyzed expectations of the business world from the accounting education in the Universities and Vocational Schools in Azerbaijan and determined main problems they face in this field. For this purpose, a research has been conducted on the expectations of the companies operating in Baku from teaching of accounting. In this research, general information about accounting and educational institutions, the structure of the current accounting training in universities, the perspective of the business world in accounting teaching and their expectations was analyzed. In the technical part, 110 questionnaires collected from various respondents were analyzed with SPSS-25 program package with descriptive statistics and factor analysis methods and the results were interpreted. We believe that the outcomes of the research will be very useful in both - for the improvement of the accounting education in vocational schools and for the positive reflection of this education to the business sector. Keywords: Teaching, Accounting Education, Accounting Education Restructuring, Business

Key words: University, Accounting Training, Reconfiguration of Accounting Training, Business World

Introduction

Pursuing and adjusting fast development trends in today's world is one of the main topics in all sectors. Technological advancement takes an important place in accounting as well as all spheres. While people used to create a record, register and prepare fundamental financial statements previously, in today's world all above-mentioned processes are realized by technology but with human support yet.

Pursuing improvements in today's world and giving trainings according to those improvements in accounting field is one of the duties of all universities. It is required to meet with demands of business world correctly and appropriately. If accounting training provided by universities is not timely and appropriate to market conditions, reliance and attitude of business world to the university will change. At the same time, graduates' difficulties such as seeking a job will come into question. In case timely accounting training is not presented by universities, great deal of course-type certificate programs will serve to the business world more properly.

In this study, accounting concept, accounting system, training notion, accounting training and obstacles encountered in accounting training have been addressed in theoretical framework. In implementation part, survey



application has been implemented to business world and obtained findings have been interpreted by SPSS package analysis.

Accounting training

Teaching and learning accounting should be arranged to be compatible with the difficulties of new accounting role. Universities are looking for various strategies to teach vocational accounting competencies currently being required in accounting profession (Zraa, 2011:2).

Weil and Calhoun (2009) in order to evaluate which teaching and learning model will be the most appropriate in future accountants' training. Findings show that social solidarity theory and peer learning model are the most appropriate test for accounting training in a new millennium. (Ahmadov and Abdulova, 2019:45).

Accountants need intellectual abilities such as problem-solving and critical thinking. Intellectual abilities include associating obtained concepts with new situations, thinking of yourself, critical evaluation of new data and situations and knowledge application from one workplace context or problem to another one. Kavanagh and others (2009) have defined problem-solving as applicability of theory to practice, at the same time, critical analysis and thinking ability. Mohamed and Lashine (2003) have identified critical thinking as an attainment ability to verifiable results to the questions which are not answered assertively and where all related information is not available. Intellectual abilities help accountants to do those below: a) to make judgements based on understanding of out-of-focus concept set; b) to implement ability demonstration and value-based reasoning for inductive thinking process (Awayiga, Onumah and Tsamenyi 2010).

Communication skills are fundamental for accountants' success and it is observed that it has a vital importance in meeting necessities of workplace (Kavanagh and peers, 2009). Communication skills are related to easy data transcription and obtainment (Andersen 1989; Awayiga, Onumah and Tsamenyi 2010; Ballantine and Larres 2009; Hancock and others 2009). Additionally, communication skills include effective listening for knowledge acquisition, understanding counterpart viewpoints and oral and written presentation of ideas and ability to argue and interview with others (Fortin and Legault 2010; Hancock vd. 2009; Jonesm G. and Abraham 2008; Rebele 1985).

Challenges of accounting training

A great deal of studies analyzing progress of accounting graduates exist. Stoner and Milner (2010) have indicated the necessity of life-long learning and close collaboration of accounting trainers with various partners in order to be graduated to successful career. Typically, while these studies prepare students to work in accounting field, it also shows that there are great changes in accounting teaching and learning (Accounting Training Change Commission 1990; Albrecht&Sck 2000; Anderson 1989). Howieson (2003), proposed that new millennium will bring more changes in accounting practice to meet modifications affecting future direction of accounting training in accounting field (Zraa, 2011:7).

As existing training models are no longer considered sufficient, universities are actively in search of timely and modern strategies to teach and improve accounting competencies. Training models emphasizing memory and reminding the truth is accepted as a less desired approach in the course of accounting training and may lead to passive students (Jakling 2005). Kavanagh and Drennan (2007) state that existing teaching models put very little emphasis on improving students' vocational accounting competencies. Universally, accountants' education and training have been subjected to arguments (Mohamed and Lashine 2003). Albrecht and Sack (2000) emphasize the significance of ability improvement throughout accounting programs. Accounting trainers need to handle expected changes in accountants' abilities by improving more interdisciplinary and analytical lessons and education models in their instructions (Howieson 2003). Suggested strategies to eliminate determined



deficiencies have focused on expanding curriculum and improving alternative presentation strategies.

Some researches conducted in accounting training put emphasis on the importance of teaching problem-solving and group skills to accounting students. For instance, Hodson (1988) defended the necessity of defining and solving unstructured problems for students by using wide variety of knowledge sources as it is a basic requirement in work environment. Farrell and Farell (2008) have stated that teamwork about university issue is a sturdy preparation for workplace participation. Zakaria and Iksan (2007) defend that it is necessary to work as a group since accounting students need these abilities in business environment. Mohid and others (2009) have stated that accounting students improve attendance, self-confidence and leadership skills better by working with groups. Vast majority of employees does not expect their employees to line up and compete with the colleagues without direct interaction with them (Johnson & Johnson 1994). Therefore, accounting training should provide students' improvement of required communication skills and business sense (Albrecht and Sack 2000; Jones, G. and Abraham 2008).

Importance of research

In Today's world, universities need to make a collaboration with industry in order to be the fourth-generation university. There is a need for an expert and qualified staff in industry. For this reason, inquiry of this subject is important.

Objective of research

The objective of the study is to identify cooperation between business world and university and analyse the situation. To make recommendations to the university and business world in line with the results obtained.

Research method and scope

In this study, survey method has been used. Questionnaires have been analyzed by the means of SPSS24 package. The scope of the research is authorities working in companies in Baku.

Findings of research

In reliability analysis, it is based upon the hypothesis that all questions in the survey measure the same feature. The low internal consistency coefficient of Cronbach Alpha may indicate that the questionnaire measures several characteristics together. Alpha value (α) obtained as a result of the test is accepted as a homogeneity symbol of the test. Cronbach Alpha coefficient is 0.70 for the general acceptance (Tavshancil, 2006: 29).

If $0,00 \leq \alpha < 0,40$ scale is not reliable

If $0,40 \leq \alpha < 0,60$ scale has low reliability

If $0,60 \leq \alpha < 0,80$ scale is very reliable

If $0,80 \leq \alpha < 1,00$ scale is highly reliable

Reliability coefficient for needs analysis survey of enterprises applied in reliability analysis was found $\alpha = 0,729$, $\alpha = 0,919$, $\alpha = 0,852$ and $\alpha = 0,778$. This "Cronbach Alpha" internal consistency coefficient shows that the scale is highly reliable.

Profile of enterprises and attendees

Distribution of enterprises in the research by sector; 79 (72.5%) of the enterprises are financial enterprises, 8 (7.3%) are tourism enterprises, 3 (2.8%) are educational enterprises, 2 (1.8%) are health enterprises, 3 (2.8%) are agricultural enterprises, 3 (2.8%) are transportation enterprises, 4 (3.7%) are industry enterprises, 5 (4.6%) are commercial enterprises, 2 (1.8%) are energy enterprises. If enterprises are examined according to their legal structure, 33 (30.3%) of the enterprises are anonymous, 65 (62.4%) are limited partnership and 8 (7.3) are other



enterprises. The majority of the enterprises included in the research is observed to be a stock corporation. Most of the stock corporations comprise of limited companies, since they are more easily established than other companies. Therefore, when we look at the legal distribution of the enterprises within the scope of the research, it is natural that limited companies have a high rate like 65%.

27 (24.8%) of research attendees are finance directors, 14 (12.8%) are business owners, 14 (12.8%) are accountants, 8 (7.3%) are accountant assistants, 8 (7.3%) are directors, 8 (7.3%) are director assistants, 7 (6.4%) are financial analyst, 5 (4.6%) are branch managers, 4 (3.7%) are finance directors, 4 (3.7%) are head experts, 2 (1.8%) are small experts, 1 (0.9%) is a consultant, 1 (0.9%) is a financier, 1 (0.9%) is a wage accountant, 1 (0.9%) is a clerk, 1 (0.9%) is a tax specialist, 1 (0.9%) is a trainee, 1 (0.9%) is an expert, 1 (0.9%) is a planning worker. The fact that almost half of the survey attendees are accounting managers shows parallelism with the modulus subject of enterprise in the previous section.

When the education levels of the participants were examined, it was observed that high rate (87%) of the participants in the management level of enterprises graduated from high schools and higher education institutions. 77 (70.6%) of the attendees were graduated from bachelor, 29 (26.6%) were master and 2 (1.8%) were complete secondary and 1 (0.9%) was incomplete secondary school graduates.

The other question addressed to the survey participants in work groups was if they were members of any vocational organization. While 29.4% (32) of the participants was a member of the vocational organizations, 70.6% (77) of them was not a member of the vocational organizations.

Information about how participants being a member of any vocational organizations in a rate of 32% follow the professional development shows that 80 (73.4%) of them follow it from internet, 17 (15.6%) from professional seminars and courses, 1 (0.9%) from Trade Unions, 8 (7.2%) from other sources.

Features of Members of Profession/ Applicants

In this section, the focus group and education level of profession holders working in the companies attended in the survey and profession candidates, relevant field and section in the companies, general features, personality traits, fundamental abilities and internship satisfaction level related to those candidates have been handled.

Analysis of Accounting Department Personnel and Candidates

Education level of accounting-finance staff currently employed by the enterprises including in the research is relative to the distribution of the school level (college excluded) of employees working in accounting and finance departments. Therefore, 87 (79.8%) of employed accountants are bachelor's degree, 21 (19.3%) are master's degree and 1 (0.9%) is vocational higher school graduates.

The data on the education level requirement for participants and accordingly the personnel planned to be employed in accounting department of the enterprises has been presented. The education levels enterprises seek in accounting graduates are listed as follows: There are 105 (96.3%) enterprises seeking accounting-finance graduate, 2 (1.8%) seeking marketing graduate, 1 (0.9%) seeking office administrator graduate.

According to the participants, department where accounting graduates can work: In line with the survey, there are 105 (96.3%) enterprises thinking of employing accounting graduates in Accounting-finance department, 2 (1.8%) enterprises considering employing them in Marketing department, 1 (0.9%) desiring to see in Human Resources department, 1 (0.9%) thinking of employing in Office administration department.

68 (62.4%) enterprises desire to employ accounting graduates in Accounting department, 29 (26.6%) in General



accounting, 6 (5.5%) in Cash management, 5 (4.6%) in Cost accounting, and 1 (0.9%) in other areas. According to these results, enterprises want to evaluate newly graduated accounting staff mostly in pre-accountancy, afterward in general accounting areas. When the participants were asked the reason for this, the answer was that the companies where they are employed give more importance to those two departments.

Intern Acceptance And Satisfaction Cases

Doing internship is very significant for Vocational Higher School and other vocational educational institution graduates in order to adapt their work life and get hands on practical training as well as theoretical training. Internship is a meeting point for both a student and an employer. Based on this, according to the answers of the question if they hire a student as an intern in their company, 102 (93.6%) of the enterprises hire a student as an intern, while 5 (4.6%) of them do not include trainee students.

The enterprises accepting interns choose them from the students currently studying at Vocational High Schools. The enterprises not accepting interns have explained this situation with two justifications based on their previous experience. Initially, those enterprises find internship period too short. Short duration causes inavailability of returning obtained information to the company and the enterprise sees this as a waste of resources. The second reason why they do not accept a trainee is that students cannot adapt work life.

Expectations of Business World

This chapter has viewed importance level of vocational lessons in accounting-finance training given by universities from the perspective of focus group in the study and the enterprises participated in the survey, the fields where employees are the least sufficient and which lessons should be taken in order to improve knowledge and skills of professional staff.

Importance Level of Vocational Lessons

Lessons which will meet with the competence requirements of staff to be employed in accounting-finance units have been listed and assessed from 1 to 5 by considering their importance level due to the companies. This assessment has been presented in Table 1.

Table 1: Importance order of courses taken by accounting profession candidates

	1	2	3	4	5	Total
Pre-accountancy (current account- stock tracking-VAT)	56.9	33	6.4			96.3
General accounting	54.1	43.1	0.9			98.2
Tax law and accounting	21.1	65.1	11.9			98.2
Computerized accounting	64.2	25.7	7.3			97.2
Labour and social security law	11	51.4	22.9	2.8	10.1	98.2
Corporate accounting	52.3	33	11.9			97.2
Cost accounting	61.5	29.4	6.4			97.2



Financial statements analysis	52.3	36.7	6.4		95.4
Financial management	31.2	48.6	14.7	3.7	98.2
Specialized (Bank -Management-Foreign Trade) Accounting	42.2	32.1	20.2	0.9	95.4
Auditing service	45.9	33.9	17.4	0.9	98.2
Statistics	22.9	56	18.3	0.9	98.2

As seen from the table, competencies which should be possessed by the accounting staff who works and will work in your company have been identified as Very important 62 (56.9%), Important 36 (33%), Not important 7 (6.4%) due to pre-accounting (Current account-Stock tracking-VAT) level.

As seen from the table, competencies which should be possessed by the accounting staff who works and will work in your company have been identified as Very important 59 (54.1%), Important 47 (43.1%), Not important 1 (0.9%) due to general accounting level.

As seen from the table, competencies which should be possessed by the accounting staff who works and will work in your company have been identified as Very important 71 (65.1%), Important 23 (21.1%), Not important 13 (11.9%) due to tax law and accounting level.

As seen from the table, competencies which should be possessed by the accounting staff who works and will work in your company have been identified as Very important 70 (64.2%), Important 28 (25.7%), Unimportant 8 (7.3%) due to computerized accounting level.

As seen from the table, competencies which should be possessed by the accounting staff who works and will work in your company have been identified as important 56 (51.4%), Not Important 25 (22.9%), Very important 12 (11%), No idea 11 (10.1%) due to labour and social security law level.

As seen from the table, competencies which should be possessed by the accounting staff who works and will work in your company have been identified as Very important 57 (52.3%), Important 36 (33%), Not important 13 (11.9%) due to corporate accounting level.

As seen from the table, competencies which should be possessed by the accounting staff who works and will work in your company have been identified as Very important 67 (61.5%), Important 32 (29.4%), Not important 7 (6.4%) due to cost accounting level.

As seen from the table, competencies which should be possessed by the accounting staff who works and will work in your company have been identified as Very important 57 (52.3%), Important 40 (36.7%), Not important 7 (6.4%) due to financial statements analysis level.

As seen from the table, competencies which should be possessed by the accounting staff who works and will work in your company have been identified as Important 53 (48.6%), Very important 34 (31.2%), Not important 16 (14.7%), No idea 4 (3.7%) due to financial management level.

As seen from the table, competencies which should be possessed by the accounting staff who works and will work in your company have been identified as Very important 46 (42.2%), Important 35 (32.1%), Not important 22 (20.2%), Not important at all 1 (0.9%) due to specialized (Bank -Management-Foreign Trade) Accounting level.

As seen from the table, competencies which should be possessed by the accounting staff who works and



will work in your company have been identifies as Very important 50 (45.9%), Important 37 (33.9%), Not important 19 (17.4%), Not important at all 1 (0.9%) due to finance analysis level.

For companies, which lessons will be more efficient and equipped for the accounting staff working and will be working in the company during their training have been listed below. While being listed, the companies have made their choices due to the lessons meeting with the needs of their own companies and which part their enterprises pay more attention. Aforesaid choices have been listed due to the importance level as follows:

1. Pre-accounting,
2. General accounting,
3. Computerized accounting,
4. Cost accounting,
5. Corporate accounting,
6. Accounting analysis,
7. Tax law and accounting,
8. Financial management,
9. Financial statements analysis,
10. Labour and Social Security Law,
11. Specialized accounting (Bank-Management- Foreign Trade),
12. Statistics.

As is seen, it is the most significant issue for the enterprises is pre-accounting lessons to be taken by the employees during their training who will be working in this enterprises.

Conclusion

It was observed that the majority of enterprises were stock corporations. Therefore, when we look at legal distribution of enterprises within the scope of the research, it is natural that Limited companies have a high rate like 65%. 70.6% of attendees had bachelor education. The next place was master education with 26.6%. 73.4% of attendees follow the developments from internet. It is more than other sources. The meeting frequency of accounting department is usually once in 15 days or once in a month. Education level employers seek in accounting graduates is generally accounting finance. The department that accounting-finance graduates can work is usually Accounting-finance department. According to the trainee acceptance situation of the enterprise, 93% of the enterprises take students as a trainee studying at accounting program. According to the satisfaction situation of the trainee student, 58.7% of the enterprises are satisfied with the knowledge background of trainee students.

References

- Ahmadov, F., & Abdulova, A. (2019). Impact of The Human Resource Department's Career Development Strategy to Companies Competitive Power; Azerbaijan. JMDMA, 1(2), 42-48.
- Ahmadov, F., Ahmedov, T., & Aliyev, Y. (2017). Maliyyə Savadlılığı: Konseptual Və Tarixi İnkişaf. TURAN: Stratejik Araştırmalar Merkezi, 9(34), 278.
- Albrecht, W & Sack, R 2000, Muhasebe eğitimi: Tehlikeli bir gelecekle kursu belirleme, Amerikan Muhasebe Birliği Sarasota, FL. (İngilizce)
- Andersen, A 1989, Eğitime bakış açıları: Muhasebe mesleğinde başarı için yetenekler, New York. (İngilizce)
- Awayiga, JY, Onumah, JM & Tsamenyi, M 2010, 'Muhasebe mezunlarının bilgi ve beceri gelişimi: Mezunların ve ganadaki işverenlerin algıları', Muhasebe Eğitimi: Uluslararası bir dergi, cilt. 19, hayır. 1-2, sayfa 139-58. (İngilizce)
- Ballantine, J & Larres, P 2007, 'İşbirlikli öğrenme: Öğrencilerin genel becerilerini geliştirmek için bir pedagoji?', Eğitim Eğitimi, cilt. 49, hayır. 2, sayfa 126-37. (İngilizce)
- Ballantine, J & Larres, P 2009, 'Muhasebe,' mesleki muhasebe eğitimi ve öğretimi ile başarılı bir şekilde etkileşime geçmek için kişilerarası ve iletişim becerilerini geliştirmek için bir model olarak işbirlikli öğrenmeye ilişkin algıların altını



- çiziyor ', Muhasebe Eğitimi: Uluslararası bir dergi, cilt. 18, hayır. 4-5, sayfa 387-402. (İngilizce)
- Farrell, B & Farrell, H 2008, 'Bir muhasebe müfredatında işbirlikli öğrenmeyle öğrenci memnuniyeti', Üniversite Öğretme ve Öğrenme Uygulaması Dergisi, vol. 5, hayır. 2, sayfa 39-54. (İngilizce)
- Fortin, A & Legault, M 2010, 'Genel Yeterliliklerin Geliştirilmesi: Karışık bir öğretim yaklaşımının öğrencilerin algıları üzerindeki etkisi', Muhasebe Eğitimi: Uluslararası bir dergi, cilt. 19, hayır. 1, sayfa 93 - 122. (İngilizce)
- Hancock, P, Howieson, B, Kavanagh, M, Kent, J, Tempone, Ben, Segal, N & Freeman, M 2009, 'Avustralya'da muhasebe eğitiminin geleceğinde bazı kilit paydaşların rolleri', Avustralya Muhasebe İncelemesi, hac. 19, hayır. 3, sayfa 249-60. (İngilizce)
- Hodson, D 1988, 'Fen ve Fen Öğretiminde Deneyler', Eğitim felsefesi ve teorisi, vol. 20, hayır. 2, sayfa 53-66. (İngilizce)
- Howieson, B 2003, 'Yeni Binyılda Muhasebe Uygulamaları: Muhasebe eğitimi bu zorlukla başa çıkmaya hazır mı?', The British Accounting Review, vol. 35, hayır. 2, sayfa 69-103. (İngilizce)
- Jackling, B & De Lange, P 2009, 'Muhasebe mezunlarının becerileri' işverenlerin beklentilerini karşılıyor mu? Bir yakınsama veya uzaklaşma meselesi ', Muhasebe eğitimi, cilt. 18, hayır. 4, sayfa 369-85. (İngilizce)
- Jackling, B & Watty, K 2010, 'Genel Beceriler', Muhasebe Eğitimi: Uluslararası Bir Dergi, vol. 19, hayır. 1-2, sayfa 1-3. (İngilizce)
- Jackling, B 2005, 'Öğrenme bağlamına ilişkin algılar ve öğrenme yaklaşımları: Muhasebede kaliteli öğrenme çıktılarından etkileri', Muhasebe eğitimi, vol. 14, hayır. 3, sayfa 271-91. (İngilizce)
- Johnson, D & Johnson, R 1994, Birlikte ve yalnız öğrenme: İşbirlikçi, rekabetçi ve bireysel öğrenme, 4. Baskı, Dizi Boston:, Allyn ve Bacon. (İngilizce)
- Jones, A 2010, " Muhasebede genel özellikler: Disiplin bağlamının önemi ', Muhasebe Eğitimi Uluslararası Journa, vol. 19, hayır. 1, sayfa 2-21. (İngilizce)
- Jones, G & Abraham, A 2008, 'Muhasebecileri bugünün küresel iş ortamına hazırlamak: Duygusal zekanın muhasebe eğitimindeki rolü', Ticaret Fakültesi-Makaleler, s. 482. (İngilizce)
- Joyce, B, Weil, M & Calhoun, E (eds) 2009, Öğretim modelleri, 8. edn, Pearson Education, Inc, Boston. (İngilizce)
- Kavanagh, M & Drennan, L 2007, 'Lisansüstü nitelikler ve beceriler: Malları veren muhasebe akademisyeni olarak mıyız?'(İngilizce)
- Kavanagh, M & Drennan, L 2008, 'Muhasebe mezunu hangi becerileri ve özellikleri gerektirir? Öğrenci algılarından ve işveren beklentilerinden elde edilen kanıtlar ', Avustralya Muhasebe ve Finans Birliği ve Yeni Zelanda Konferansı, Avustralya, Adelaide'da sunulan bildiri. (İngilizce)
- Kavanagh, M & Drennan, L 2008, 'Muhasebe mezunu hangi becerileri ve özellikleri gerektirir? Öğrenci algılarından ve işveren beklentilerinden elde edilen kanıtlar ', Avustralya Muhasebe ve Finans Birliği ve Yeni Zelanda Konferansı, Avustralya, Adelaide'da sunulan bildiri. (İngilizce)
- Mohamed, E & Lashine, S 2003, 'Muhasebe bilgi ve becerileri ve küresel bir iş ortamının zorlukları', Managerial Finance, vol. 29, hayır. 7, sayfa 3-16. (İngilizce)
- Mohidin, R, Jaidi, J, Sang, LT ve Osman, Z 2009, 'Etkili öğretim yöntemleri ve öğretim görevlisi, universite malaysia sabah (ss)' daki muhasebe öğrencilerine yönelik bir çalışma ', Avrupa Sosyal Bilimler Dergisi, vol. 8, hayır. 1. (İngilizce)
- Muhasebe Eğitimi Değişim Komisyonu 1990b, 'Muhasebeciler için eğitimin amaçları: Bir numaralı pozisyon ifadesi', Muhasebe Eğitiminde Meseleler, vol. 5, hayır. 2, s. 307. (İngilizce)
- Rebele, JE 1985, 'Muhasebe öğrencilerinin kamu muhasebesinde iletişim becerilerinin önemine ilişkin algılarının incelenmesi', Muhasebe Eğitiminde Konular, no. 3, s. 41. (İngilizce)
- Stoner, G & Milner, M 2010, 'Muhasebe Derecesinde Genel Kullanılabilirlik Becerilerinin Yerine Getirilmesi: Gelişme ve Engeller', Muhasebe Eğitimi: Uluslararası Bir Dergi, Cilt. 19, hayır. 1, sayfa 1-16. (İngilizce)
- Zakaria, E & İksan, Z 2007, 'Fen ve matematik eğitiminde işbirliğine dayalı öğrenmeyi teşvik etmek: Malezya perspektifi', Avrasya Matematik Dergisi, Fen ve Teknoloji Eğitimi, cilt. 3, hayır. 1, sayfa 35-9. (İngilizce)
- Zraa Wahida, (2011) Yeni Binyıl Cambridge İşletme ve Ekonomi Konferansı'nda (CBEC) muhasebe eğitimi, Cambridge Üniversitesi, İngiltere. (İngilizce)
- <https://www.accountingtools.com/articles/2017/5/15/accruals-concept>
- <https://www.accountingtools.com/articles/2017/5/14/the-conservatism-principle>
- Consistency concept
- <https://www.accountingtools.com/articles/2017/5/14/the-economic-entity-principle>
- <https://www.accountingtools.com/articles/2017/5/14/the-going-concern-principle>
- <https://www.accountingtools.com/articles/2017/5/14/the-matching-principle>
- <https://www.accountingtools.com/articles/2017/5/14/the-materiality-principle>



<https://www.mbacrystalball.com/blog/accounting/>
https://saylordotorg.github.io/text_exploring-business-v2.0/s16-01-the-role-of-accounting.html
<https://www.accountingtools.com/articles/2017/5/10/financial-accounting>
<https://www.accountingtools.com/articles/what-is-public-accounting.html>
<https://www.accountingtools.com/articles/governmental-accounting.html>
<https://www.accountingtools.com/articles/forensic-accounting-overview.html>
<https://www.accountingtools.com/articles/2017/5/8/management-accounting>
<https://www.accountingtools.com/articles/tax-accounting.html>
<https://www.accountingtools.com/articles/2017/9/27/internal-audit>
<https://pdf.wondershare.com/accounting/accounting-information-system.html>



Relationship between Work Life Balance and Employee Satisfaction: The Case of Azerbaijan

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Abstract

Increasing competition in every-day business life, and the fact that workers face the situation of losing their jobs cause them to be in constant stress in business and become unable to devote time to their personal lives. It is observed that individuals who are not able to find a work-life balance are generally neither satisfied with their working life nor are happy in their personal life.

Employee satisfaction is an important factor in creating a harmonious working environment in organizations. Employees and managers both share great responsibilities in ensuring employee satisfaction. Once employee satisfaction is not provided, a decrease in employee performance is observed, which directly affects the productivity of organizations negatively. The aim of this study is to investigate the relationship between work-life balance and employee satisfaction. For this purpose, the literature was first searched and then the field data were analyzed by SPSS 22.0 statistical package program. The relationship between work life balance and employee satisfaction was determined as a result of the findings.

Key words: work life balance, employee satisfaction

Introduction

Different understandings are used to overcome difficulties appeared in business and daily lives of workers. In this regard, it provides us with a significant opening to comply with flexibility practices in business life, changing structure for enterprises and employees. Priority should be given to not only interests of the institution, but also expectations of the employees. In a globalized world, the purpose is not merely to produce high quality products, at the same time to meet with the expectations of workers and ensure employee satisfaction. Enterprises achieve this balance with different methods. One of the implementation methods is work-life programs which try to provide work-life balance and it emerged in the beginning of 1930's.

Despite the fact that work-life balance has been discussed since the beginning of 1930s, for the first time Rosabeth Moss has offered work-life balance in the Kanter's book named "Work and family in the USA (1977)" to the interest of organisations and researchers (Dedeal, 2019:17).

Work-life balance concept states balance between employee's business life and family arrangement. There are different recognitions in regard to work-life balance.

According to Adnan Akin and others (2017:114), work-life balance is workers' ability to manage business life and private life in an optimum level. Oya Korkmaz, Evrim Erdogan (2014:541), indicate work-life balance as satisfaction from business and private life in a subjective context, while they specify it as health, career and success in private life in an objective context.



David Guest (2002: 263), defines work-life balance as individuals having time to carry out obligations related with both business and private life. According to some philosophers, work-life balance shouldn't be a balance being provided with spending half of life working and another half focusing on topics concerning private life. Work-life balance should be a balance which is realized by providing physical, emotional and spiritual harmony in work and life (Ahmadov and Abdulova 2019: 45).

Kapiz (2002:140) has explained the importance of work-life balance notion with below-mentioned phrases:

“Individuals are in a struggle for balancing business and family life without noticing statutes in a society. Individuals are not able to achieve balance with their own efforts because of changing terms and stress resulted from the incapacity for establishing this balance affect the individual excessively. Individual's turning work into the centre of his life, long and nonuniform working hours, economic woes, rising life conditions, indispensable feature of family are increasing competition between work and family demands.”

In literature, together with identification of work-life balance, individualistic and organisational importance of work-life balance, ensured benefits are under scrutiny.

Manfredi and Holliday, who identify work-life balance as “it is based on reducing the competition between business and private life to the minimum” and state that work-life balance encourages executives in flexible working hours and work sharing subjects, have sorted certain benefits of flexible hours and work sharing to the organisation as increasing employment, retaining worker, ensuring employee's satisfaction and improving productivity (Oya Korkmaz and Evrim Erdogan conveying from Manfredi and Holliday, 2014: 544. Moreover, they have added that work-life balance has the positive impacts such as providing cost efficiency and improving performance besides mentioned benefits. Generally, it is in sight that work-life balance practices evoke a major impact on employee satisfaction and organizational commitment (Oya Korkmaz and Evrim Erdogan conveying from Susi and Jawaharrani, 2014: 545). Like work-life balance, employee satisfaction is also regarded as a subject gaining substantial prominence. A large number of definitions have been made in studies related to employee satisfaction. Some of the forefront definitions have been addressed below.

Employee satisfaction is an outcome of perceptions in regard to the ratio employees gain the things from their work which is considered significant for them.

In other words, liking or disliking the degree how their work and work environment expectations are met is their employee satisfaction or dissatisfaction. (Aydin, 2005: 283). Individual's personal evaluation about job status is called employee satisfaction. Hereby assimilation, being or not being totally filled with work are discussed (Telman and Unsal, 2004:13). According to Lock, employee satisfaction is pleasurable or positive feeling in the consequence of work and work experience assessment.

Fulfilling all desires and requests in order to ensure employee satisfaction is mostly an impossible situation. The important thing is not to ruin stable balance condition in the employee's life (Findikci conveying from Cannon, 376). Different employees have particular needs and efforts to satisfy these needs. If the employee needs are not met despite their efforts, it upsets their balance. This emerged unbalance situation has a negative impact on both employee's business life and private life quality. Firstly, employee expresses this inconvenience. Provided that their needs are not satisfied despite all efforts, employees may present attitudes and behaviors leading to undesirable consequences such as work ineffectiveness, absenteeism, communication disorder, underperformance and job dissatisfaction.

A variety of studies exist discussing work-life balance and employee satisfaction concepts separately in international literature surveys as well as investigating relevance between two variables. However, any study



findings in which two variables are treated together and intended to measure relevance between them have not been encountered in local literature scanning.

Hypotheses in the scope of search can be divided into 2 groups:

H1: Substantive relevance exists between work-life balance and employee satisfaction.

H2: Substantive relevance doesn't exist between work-life balance and employee satisfaction.

Concurrently, the answers of below-mentioned questions have been sought:

1. If employees' views in regard to work-life balance show variation depending on the gender, marital status and level of income?
2. If employees' views in regard to work-life balance do not show variation depending on the gender, marital status and level of income?

Method

In the taken study, a quantitative method has been used effectively. Research population consists of employees working in organizations operating in Azerbaijan. Sample method of choice has been chosen because of some restrictions. Research sampling is formed by employees of Modern Group of Companies LLC. Attendees participating in the research sampling have been asked questions in online environment. Sampling are not reached in full due to some reasons (rejection to answer survey questions, employees' being incapable of accessing to the questionnaire and etc.). Consequently, data from 143 surveys has been analyzed.

Generalization including all company employees in Azerbaijan is not made based on assessment of field research findings. Obtained findings merely reflect views of the group involved in the research.

Survey technique has been used a method of data collection. Two measures named work-life balance and employee satisfaction have been examined due to the requirements in Oya Korkmaz and Evrim Erdogan's "Work-life balance's impact on organizational dependance and employee satisfaction" work taken from international literature. Survey consists of 15 statements. Quintet Likert type statements are used in the scale. These statements are; Definitely Disagree=1, Partly Disagree=2, Indecisive=3, Partly Agree=4, Definitely Agree=5. Questions related to the participants' demographic information have been asked, too.

In the research, frequency distribution in regard to demographic variables has been presented and correlation analysis has been made in order to determine relevance between two variables by using SPSS 22 statistical package program. The possibility of statistical relevance of gender, marital status and level of income with employee views about work-life balance and employee satisfaction has been analyzed by *t* test and ANOVA. The scale used in the research is subjected to Cronbach Alpha reliability test.

Findings

The outcomes of the research has been presented in tables in the findings and comments section.



Table 1. Findings related to demographic features of participants

Features		Frequency	Percent
Gender	Female	32	22
	Male	111	78
Marital status	single	44	31
	married	99	69
Age	20-30	56	39
	31-40	71	50
	41-50	8	6
	51+	8	6
Level of income	300-500	38	27
	500-1000	48	34
	1000-1500	29	20
	1500+	22	15
	Other	6	4

Reliability analysis of the scales used in the research

If Croanbach Alpha index is in 0,60-0,79 range, it shows its quite reliability, if it is in 0,80-1,00 range, it means the scale has high reliability.

Table 2. Work-life balance scale reliability analysis

Croanbach Alpha	Number of items
0.862	4

As seen from the Table above, Croanbach Alpha index of work-life balance scale is identified 0.862. Croanbach Alpha index of employee satisfaction being 0,862>0,60 means that the scale has high reliability.



Table 3. Employee satisfaction scale analysis

Croanbach Alpha	Number of items
0.863	11

As seen from the Table above, Croanbach Alpha index of employee satisfaction balance scale is identified 0.863. Croanbach Alpha index of employee satisfaction being 0,863>0,60 means that the scale has high reliability.

Dependency of perception level related to workers' work-life balance and employee satisfaction from gender and marital status has been analyzed by independent group t test. The outcomes have been presented in Table 4 and Table 5.

Table 4. Outcomes of t test of workers' work-life balance and employee satisfaction perception level in relation with gender.

Scale	Factor		N	X	Ss	t	p
WLB	Gender	Female	32	3.97	0.55	-0.881	0.38
		Male	111	4.09	0.71		
JS		Female	32	2	0.53	0.311	0.75
		Male	111	1.96	0.61		

As seen from Table 4, perception level related to workers' work-life balance and employee satisfaction do not show statistical significant change for gender ($p>.05$).

Table 5. Outcomes of t test of workers' work-life balance and employee satisfaction perception level in relation with marital status.

Scale	Factor		N	X	Ss	t	p
WLB	Marital status	Single	44	4.1	0.53	0.52	0.6
		Married	99	4.04	0.74		
JS		Single	44	1.9	0.45	-1.04	0.29
		Married	99	2	0.64		

As seen from Table 5, perception level related to workers' work-life balance and employee satisfaction do not show significant statistical change for marital status ($p>.05$).

Dependency of perception level related to workers' work-life balance and employee satisfaction from level of income has been analyzed by ANNOVA. The outcomes have been presented in Table 6.



Table 6 Outcomes of t test of workers' work-life balance and employee satisfaction perception level in relation with marital level of income.

Scale	Factor		N	X	Ss	f	p
WLB	level of income	300-500	38	2.1579	0.68217	2.83	0.27
		500-1000	48	1.9318	0.4404		
		1000-1500	29	1.721	0.55027		
		1500+	22	2.0909	0.67039		
		Other	6	1.8788	0.49682		
JS		300-500	38	2.1579	0.68217	2.71	0.32
		500-1000	48	1.9318	0.4404		
		1000-1500	29	1.721	0.55027		
		1500+	22	2.0909	0.67039		
		Other	6	1.8788	0.49682		

As seen from table 6, perception level related to workers' work-life balance and employee satisfaction show significant statistical change for level of income ($p < .05$). In case there is a difference between groups, LCS Post Hoc test has been used in order to identify the groups where there is difference. According to the results of LSD, perception level of employees related to work-life balance ($\bar{X}=4.40$) whose income level is 1000-1500 is higher than other groups. In addition, perception level of employees related to employee satisfaction ($\bar{X}=1.72$) whose income level is 1000-1500 is lower than the groups ($\bar{X}=2.16$) with 300-350 income level.

Correlation analysis

Correlation analysis is used in order to identify the existence of relevance among two or more variables.

“Positive” result from correlation analysis means relevance between variables is in a right direction, “Negative” result means relevance between variables is in an opposite direction.

Table 6. Correlation analysis of work-life balance and employee satisfaction

	Work-life balance	Employee satisfaction
Work-life balance	1	-.518**
		.000
	143	143
Employee satisfaction	-.518**	1
	.000	
	143	143



It has been inferred from this research that there is a negative relevance between two variables.

Results, Conclusions and Recommendations

As mentioned beforehand, work-life balance has a vital place for individuals, families and organizations. In organizations where there are individuals unable to solve their problems related to work-life balance, problems such as unwillingness to work permanently, absenteeism, ineffectiveness are monitored. These problems affect both organizations and employees in a negative way.

According to the research, HQ hypothesis has been accepted showing there is a significant relevance between work-life balance and employee satisfaction. On the other hand, H2 hypothesis stating non-existence of work-life balance and employee satisfaction has been refused.

At the same time, non-existence of statistical relevance between work-life balance, employee satisfaction perception levels and gender, marital status, existence of statistical relevance between work-life balance, employee satisfaction perception levels and level of income has been revealed in the scope of the research.

As mentioned in the research restrictions section, as a result of research finding assessment, generalization including all employees working in all enterprises in Azerbaijan is not made. Obtained findings reflect merely the views of the examined group. Therefore, in order to achieve more comprehensive and substantive result, the research can be conducted in other fields and sectors, the relevance between work-life balance and employee satisfaction can be detected and obtained outcomes can be compared with the outcomes of existing research.

References

- Ahmadov, F., & Abdulova, A. (2019). Impact of The Human Resource Department's Career Development Strategy to Companies Competitive Power; Azerbaijan. JMDMA, 1(2), 42-48.
- Akın, A., Ulukök, E., Arar, T. (2017). İş-Yaşam Dengesi: Türkiye'de Yapılan Çalışmalara Yönelik Teorik Bir İnceleme, *Kırıkkale Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 19(1), 114.
- Armstrong, M. (2006). *Handbook of Human Resource Management Practice* (10th Edition). London: GBR, Kogan Page.
- Aydın, Ş. (2005). İşgören Devri, Nedenleri ve Sonuçları. C. Demir (Editör), *Konaklama İşletmelerinde İnsan Kaynakları Yönetimi*, s. 283. Ankara, Nobel Yayınları
- Burke, R. J. (2009). Working to live or living to work: Should individuals and organizations care? *Journal of Business Ethics*, 84(2), 167- 172.
- Cannon, Bradford, W., (1939). *The Wisdom Of The Body*, New York, Aktaran: Fındıkçı, s.376
- Clark, C. (2000). Work/family Border Theory. A new theory of work/life balance. *Human Relations*, 53(6), 747-770.
- Guest D., (2002). "Perspevtives on Study of Work-Life Balance", *Social Science Information*, 263
- Kapız, S. Ö. (2002). İş – aile yaşamı dengesi ve dengeye yönelik yeni bir yaklaşım: Sınır Teorisi. *Dokuz Eylül Üniversitesi, Sosyal Bilimler Enstitüsü Dergisi*, 4(3), 139- 153.
- Korkmaz, O., Erdoğan E., (2014). İş Yaşam Dengesinin Örgütsel Bağlılık ve Çalışan Memnuniyetine Etkisi, *Ege Akademik Bakış Online Dergi*, 14(4), 541.
- Polat, Ş. (2017). İş Özellikleri, İş-Yaşam Dengesi Ve Meslekten Ayrılma Niyeti Arasındaki İlişkilerin Öğretmen Görüşlerine Göre İncelenmesi, Hacettepe Üniversitesi, doktora tezi
- Telman, N. ve Ünsal, P. (2004). *Çalışan Memnuniyeti*. İstanbul. Epsilon Yayınevi, 12-27.



Aspects of Holistic Space Economics from the Perspective of Sustainable Development

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Abstract

This paper is one of the outcomes of the preparatory work on a research project exploring the effects of solar activity on Earth's economy and extraterrestrial economy from a global perspective. The equation of the field of retail gravitation is derived by the Einstein's methodology modified for the description of the field of terrestrial as well as extraterrestrial retail gravitation.

Keywords: holistic economics, physical economics, physical informatics, quantum cognition

1 Introduction

The colonization of the solar system will require a profound change in the education of economists because economists, through their decisions, will have a significant impact on the financing of basic and applied research. It will therefore be necessary for economists to be educated in the fields of science related to the development of space trade. This can be illustrated by the following example: During long-term flights of spacecrafts to transport people or cargo, as well as when moving people or cargo to or from these spacecrafts, solar activity and its manifestations on the orbital trajectory of the Earth around the Sun will have to be reliably predicted from the knowledge of physical mechanisms responsible for solar and geomagnetic activity.

For these reasons the interdisciplinary project **Economics of Sun-Earth Relationships** (ES-ER) is being prepared as a part of the international research and educational program **Holistic Space Economics** (HSE). The ES-ER project examines globally the effects of solar activity on terrestrial economics and economy as well as the transformation of terrestrial economics into extraterrestrial economics including the gradual transformation of the educational process in terrestrial economics into the educational process within extraterrestrial economics in the framework of doctoral studies.

In this paper the metric theory of the retail gravitation is derived on Einstein's manifold. This paper is based on papers (Zeithamer & Pospíšil, 2018, 2019). The paper is one of the outputs for the preparation of the ES-ER project.

2 The equation of the retail gravitational field

The quantification of the phenomenon of retail gravitation, published by John William Reilly in 1929 in the United States (Reilly, 1929), had a surprising analytical similarity to Newton's law of gravitation, i.e. the volume of retail trade attracted into the city with a large population (from the vicinity of the city) was directly proportional to the population of this city and inversely proportional to the square of the distance from this city.



Reilly's law of retail gravitation (Reilly, 1929, 1931) waited 86 years for the direct derivation from Newton's law of gravitation and for the first time it was derived directly from Newton's Law of Gravitation by Thomas R. Zeithamer in 2015 (Zeithamer, 2013, 2016; Zeithamer & Pospíšil, 2017).

In this paper, the geometric description of retail gravitation is realized on a four-dimensional (space-time) differentiable manifold, in which the square of the distance ds between two infinitely proximate points $K = [x_0, x_1, x_2, x_3]$ and $K' = [x_0 + dx_0, x_1 + dx_1, x_2 + dx_2, x_3 + dx_3]$ (where $x_0 = ct$, t is time, c is the velocity of light) is expressed by a quadratic form

$$ds^2 = g_{\mu\nu} dx^\mu dx^\nu, \quad \mu, \nu = 0, 1, 2, 3. \quad (1)$$

And so the quadratic form (1), which defines the metrical properties of four-dimensional space-time differentiable manifold, is not necessarily positive as in the case of the geometry of three-dimensional space, but has the signature +2 or -2. That is to say that if the coordinates are chosen so that at one particular point of the differentiable space-time manifold the signature is +2, i.e.

$$ds^2 = -dx_0^2 + dx_1^2 + dx_2^2 + dx_3^2, \quad (2)$$

then in every case three of the signs will be plus and one minus. The phenomena of retail gravitation must also be placed to the account of geometry and the laws by which population affects economic measurements are no other than the laws of retail gravitation.

Let us consider a currency units moving freely past a city with great population in Riemann manifold. In the Reilly's empirical research of retail gravitation the city with great population is replaced by a financial volume of retail trade drawn to the city with great population and then, since the currency units are no longer moving freely, one finds that their trajectories are no longer straight lines. The space-time manifold is assumed to be a Riemann space with metric tensor g of Lorentzian signature and in such a space it is natural to suppose that the trajectories of a freely moving currency units are modeled by geodesics.

If there is no field of retail gravitation present, and if an inertial coordinate system is being used, the geodesic trajectories of a freely moving currency units should change to straight lines. This is only possible if a coordinate system can be found in which the Christoffel symbols and therefore the partial derivatives of the metric tensor vanish at all points of the manifold. The Riemann space then must be a Minkowski space with metric tensor field η and that relative to an orthonormal basis it has components

$$\eta_{ij} = \begin{bmatrix} -1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}. \quad (3)$$

Even in a Minkowski space the Christoffel symbols will not, in a general coordinate system, vanish. In a general coordinate system the trajectories of the freely moving currency units will be given by the equation

$$\frac{d^2 x^\nu}{ds^2} + \Gamma_{\mu\kappa}^\nu \frac{dx^\mu}{ds} \frac{dx^\kappa}{ds} = 0, \quad \mu, \nu = 0, 1, 2, 3, \quad (4)$$

where the presence of the term involving the Christoffel symbol indicates the existence of an inertial force of retail gravitation and the use of non-inertial coordinates while



$$\Gamma_{\mu\kappa}^{\nu} = \frac{1}{2}g^{\nu\lambda} \left(\frac{\partial g_{\lambda\kappa}}{\partial x^{\mu}} + \frac{\partial g_{\mu\lambda}}{\partial x^{\kappa}} - \frac{\partial g_{\mu\kappa}}{\partial x^{\lambda}} \right) \quad (5)$$

are signs for Christoffel symbols $\left\{ \begin{smallmatrix} \nu \\ \mu\kappa \end{smallmatrix} \right\}$.

In the presence of a field of the retail gravitation the metric tensor field g must be determined by the distribution of population which is the source of the field of the retail gravitation. The field of retail gravitation is described by a scalar potential ϕ satisfying Poisson's equation

$$\Delta\phi = -4\pi E\rho, \quad (6)$$

where ρ is the density of the population distribution and E is a constant of the city economic equipment. In the special theory of relativity applied to retail gravitation ρ is just part of the energy-momentum tensor field T of the population distribution and so one might expect $T^{\mu\nu}$ to appear on the right-hand side of the field equations of general relativity applied to retail gravitation. The components $g_{\mu\nu}$ of metric tensor field g are the analogues of the scalar potential and so again one might expect the left-hand side of the field equations to involve a tensor field of valence two and this tensor field is constructed from the components $g_{\mu\nu}$ and their first and second partial derivatives (for the reason that Laplacian Δ involves second or first and second partial derivatives in dependence on type of system of coordinates). In the absence of external forces, the energy-momentum tensor field has zero divergence, a condition which can be written in tensor form as

$$T^{\mu\nu}_{;\mu} = 0. \quad (7)$$

In accordance with Einstein, the tensor field G with components $G^{\mu\nu}$ is defined in the same analytical form through the tensor field of Ricci for the case of retail gravitation, i.e.

$$G^{\mu\nu} = R^{\mu\nu} - \frac{1}{2}g^{\mu\nu}R, \quad (8)$$

which is linear in the partial derivatives of the metric tensor, also has zero divergence so that the field equation for retail gravitation may be postulated in the form

$$G^{\mu\nu} = HT^{\mu\nu}, \quad (9)$$

where H is a constant. In any region of space that is not occupied by population, the tensor field T with components $T^{\mu\nu}$ becomes zero so that (8) gives

$$G^{\mu\nu} = R^{\mu\nu} - \frac{1}{2}g^{\mu\nu}R = 0, \quad (10)$$

where

$$R = R^{\nu}_{\nu} = g^{\kappa\nu}R_{\kappa\nu}. \quad (11)$$

Contracting on μ and ν in equation (10) yields

$$R - \frac{1}{2}4R = 0 \quad (12)$$



so that $R = 0$. It follows that the Ricci tensor itself must be zero

$$R^{ij} = 0. \quad (13)$$

3 The criterion of the occurrence of the retail gravitation field

The possibility to introduce such coordinates for which all components (5) (or all Christoffel's symbols) are zero, characterizes the Euclidean space which is defined by this property for any number of N dimensions. However, not only the metric form but also the equation of geodesics in the curvilinear coordinates in the Euclidean space formally do not differ from the equations of the geodesics in the general Riemann space. This raises the question of how to distinguish the curved Riemann space from the flat Euclidean space without the empirical search for the Cartesian coordinate system with the constant components of the metric tensor field? The solution to this task concerns the basic geometric characteristics of the space that can not depend on the choice of the reference system. For this reason, the problem can only be solved by expressing the curvature of the space with a tensor field whose components disappear in the whole space only when it is Euclidean. Then, all the components of the tensor field searched in each reference system will be zero. By this tensor field, which makes it possible to decide whether it is a flat space or a curved space independently of the choice of the coordinate reference system, is Riemann curvature tensor field whose components in arbitrary coordinates are of the form

$$R_{\kappa\lambda\mu}^{\nu} = \frac{\partial \Gamma_{\kappa\lambda}^{\nu}}{\partial x^{\mu}} - \frac{\partial \Gamma_{\kappa\mu}^{\nu}}{\partial x^{\lambda}} + \Gamma_{\kappa\sigma}^{\nu} \Gamma_{\mu\lambda}^{\sigma} - \Gamma_{\lambda\sigma}^{\nu} \Gamma_{\kappa\mu}^{\sigma}. \quad (14)$$

Despite the rather complicated mathematical expression of the components of the tensor field of curvature, it is clear from (5) that this tensor field has all components of zero if the components of the metric tensor field are constant, i.e. independent of coordinates. This is true for Cartesian coordinates that exist only in Euclidean space, and therefore in flat space all components of the tensor field of curvature are zero in all (that is, also curvilinear) coordinates. The inverse theorem also holds that the space in which all components of the Riemann's tensor field of curvature in any coordinate system are equal to zero, is a Euclidean space. The fact that space is curved or not is unambiguously determined by the Riemann tensor field of curvature with the components $R_{\kappa\lambda\mu}^{\nu}$.

The occurrence of the retail gravitation field is linked to the non-zero population of settlement units, i.e. to the average number of inhabitants of villages, towns, cities, metropolises. The curvature criterion of the metric space mentioned in the previous paragraph is used to determine the presence of retail gravitation in the model space by the calculation of metric tensor field from the economic surveys of retail gravitation.

Conclusion

This paper is the output of the preparatory work for the upcoming project "Economics of Sun-Earth Relationships" and it is at the same time pioneering of the new direction of research in the field that is entitled space holistic economics (or astrobioeconomics) (Zeithamer & Pospíšil, 2018, 2019)]. The methodology developed by Professor Albert Einstein in the theory of relativity in the time span of 1905 to 1916 (Einstein, 1914, 1915, 1916 a, 1916 b) was applied to describe the field of retail gravitation. The equation of the field of retail gravitation is derived. A quantitative criterion for determining the presence of retail gravitation was



established, i.e. the occurrence of a retail gravitation field is equivalent to the non-zeroing of the Riemann curvature tensor field of curvature for retail gravitation in a model space.

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References

- Einstein, A. (1914). Die formale Grundlage der allgemeinen Relativitätstheorie. *Sitzungsber. k. preuss. Akad. Wiss.*, Vol. XLI, (pp. 1030-1085).
- Einstein, A. (1915). Die Feldgleichungen der Gravitation. *Sitzungsber. k. preuss. Akad. Wiss.*, Vol. XLVIII – XLIX, (pp. 844-847).
- Einstein, A. (1916 a). Die Grundlage der allgemeinen Relativitätstheorie. *Ann. Phys.*, Vol. 49, (pp. 769-822).
- Einstein, A. (1916 b). Näherungsweise Integration der Feldgleichungen der Gravitation. *Sitzungsber. k. preuss. Akad. Wiss.*, Vol. XXXII, (pp. 688-696).
- Reilly, W. J. (1929). Methods for the Study of Retail Relationships. *University of Texas Bulletin*, No. 2944, Nov.
- Reilly, W. J. (1931). *The Law of Retail Gravitation*. 1st ed., New York: USA, Knickerbocker Press.
- Zeithamer, T. R. (2015). Methodology of Theoretical Physics in Economics: Vector Theory of Retail Gravitation Law. In: *Proceedings of The International Scientific Conference INPROFORUM 2015*. 05. 11. 2015 – 06. 11. 2015, České Budějovice [on line]. České Budějovice: Czech Republic, University of South Bohemia, (pp. 199-203).
- Zeithamer, T. R. (2016). Theoretical Background for the Globalization of Retail Gravitation. In: T. Klieštík (Ed.) *Proceedings of the 16th International Scientific Conference on Globalization and Its Socio-Economic Consequences*, 05 – 06 October 2016, Rajecké Teplice. Žilina: Slovak Republic, University of Žilina, Faculty of Operation and Economics of Transport and Communications, Department of Economics, (pp. 2482-2489).
- Zeithamer, T. R., Pospíšil, J. (2017). Stationary Fields of Retail Gravitation in Mechanisms of Globalization Relating to the Sun-Earth Relations. In: T. Klieštík (Ed.) *Proceedings of the 17th International Scientific Conference on Globalization and Its Socio-Economic Consequences*, 4th – 5th October 2017, Rajecké Teplice. Žilina: Slovak Republic, University of Žilina, Faculty of Operation and Economics of Transport and Communications, Department of Economics, (pp. 3053-3060).
- Zeithamer, T. R., Pospíšil, J. (2018). Fundamentals of the Tensor Theory of Utility upon the Riemann Manifolds. In: *Proceedings of The International Scientific Conference INPROFORUM 2018*. 01. 11. 2018 – 02. 11. 2018, České Budějovice [on line]. České Budějovice: Czech Republic, University of South Bohemia, (pp. 199-203).



Zeithamer, T. R., Pospíšil, J. (2019). Space-Time Theory of Retail Gravitation in Economics of Sun-Earth Relationships. In: *Proceedings of the 18th Conference on Applied Mathematics, APLIMAT 2019*, Slovak Republic: Bratislava, Slovak Technical University, (pp. 1345-1349).



Graded Tasks as a Specific Teaching Situation in Mathematics

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Abstract

The pupil acquires mathematical knowledge and skills in mathematics primarily through the solution of appropriately chosen tasks. The quality and type of mathematical knowledge that pupils create is also greatly influenced by the way they work with the chosen role in the classroom, which depends largely on the teacher and his/her teaching approach. These two aspects – the appropriate choice of tasks and their implementation in mathematical teaching, form the basis of effective mathematics teaching. Therefore, it is important to prepare teachers to work with types of tasks that could be used effectively in teaching. One of the solutions can be represented by so-called graded tasks, which have significant educational potential in mathematical teaching, but work with them and especially their creation is difficult for teachers. The aim of the paper is to identify the level of preparedness of future teachers of primary education in full-time and combined forms for working with graded tasks in mathematics lessons. The research was attended by 108 full-time students and 35 combined students at the Faculty of Education, Palacký University in Olomouc. The questionnaire of own design was used, in which the respondents were to evaluate the effectiveness of graded tasks in teaching, their influence on the development of mathematical thinking, their difficulty in teacher training, etc. The obtained results were evaluated by basic descriptive statistics (for example the studied field, form of study, length, etc.) and using Fisher's combinatorial test.

Keywords: mathematics, graded tasks, teacher training, teacher beliefs, readiness, teacher self-efficacy

Introduction

Educational situations are the basic units of the teaching process. They are considered part of the process, and are defined by time, place, and learning content (Janík et al., 2016). The core of an educational situation is mostly a learning task, the purpose of which is to achieve a specific learning objective (Průcha, 2015). Learning tasks are used to activate pupils and to test whether the defined educational objectives have been achieved. By solving these tasks, pupils should adopt new knowledge and skills, and revise previous learning contents (Kalhous & Obst et al., 2002).

A specific type of mathematical tasks is represented by graded tasks. Graded tasks refer to a set of tasks or tasks with multiple assignments and questions, which follow one another and their difficulty increases. Solving easier tasks first and moving to more difficult ones helps pupils understand the task better; their initial steps might help them solve more complex tasks. The more difficult tasks may serve as a motivation for talented learners. Graded tasks are used not only in mathematics but also in other subjects, although they are typically used with mathematical operations (Novák, 1999).

Task grading is present in all three components of word problems: context, mathematical content, and form of presentation. The context may move from known environments such as the school, family, or leisure, to less known environments. As far as the mathematical content is concerned, a task may become more difficult by requiring multiple arithmetic operations or operations with greater numbers. In terms of the form of presentation, a word problem may become more difficult by adding redundant data in the text. It is usually very difficult for learners if data are presented in tables, graphs, and charts (Švrček, 2014).

The aim of tasks or a graded series of tasks is to encourage learners to discover primary but especially secondary relationships in the tasks. In fact, grading could continue indefinitely. The parameters that are taken into account include the mathematical sign in front of the number, number of decimal places, and periodicity. Regarding the



fact that difficulty is an individually perceived quality, grading need not match the needs of all learners, but it is worth considering what effect these small changes have on task difficulty.

Graded tasks provide children with choices, contrary to other types of tasks where the solution is expected irrespective of difficulty. They can choose examples as well as the order of calculation, which means less stress. Sometimes, however, there might be a problem with the choice. The term graded tasks is often used in scheme oriented education (SOE), which is based on a constructivist teaching approach. Children always have a choice and progress at their own pace (Hejný & Kuřina, 2001).

Graded tasks are usually ranked among non-standard tasks, i.e. tasks the solution of which does not usually depend on usual procedures used in our schools. These tasks require a degree of children's cognitive development and the ability of logical reasoning and creative thinking. The purpose of inclusion of non-standard tasks in education is to support and develop logical reasoning and the ability to apply adopted mathematical skills (Nováková, 2017).

A significant aspect in solving graded tasks is the degree of the teacher's intervention, who can directly help learners by providing specific information, or indirectly by suggesting a possible solution (for example by means of the "heuristic dialogue"¹). Regular inclusion of graded tasks significantly supports the individual approach to learners and better achievement of weaker learners. For this reason, graded tasks should be part of mathematics teaching and future teachers should be able to use them. It is also important for teachers self-efficacy to have a set of instruments for effective teaching (Dofková, 2017; Dofková, 2019). Therefore, the objective of the present paper was to identify the degree of prospective teachers' awareness about these tasks.

Method

In the academic year of 2017/2018, a questionnaire survey was performed among 108 full-time students (FTS) and 35 part-time students (PTS) at the Faculty of Education, Palacký University Olomouc. The authors used a questionnaire of their own design. The responses were indicated on a four-point Likert scale. The questionnaire consisted of a total of seven items focusing on the following areas:

1. Respondents' experience with graded tasks.
2. Respondents' ability to define graded tasks.
3. Effectiveness of including graded tasks in mathematics classes.
4. Effect of graded tasks on the development of pupils' mathematical thinking.
5. Complexity of including graded tasks in mathematics classes in terms of the teacher's preparation.
6. Frequency of including graded tasks in mathematics classes.
7. Readiness for including graded tasks in mathematics classes.

The following research assumptions were defined prior to an analysis of the results:

(RA1) Students know graded tasks and able to describe them.

(RA2) Students understand the positive impact of including graded tasks in mathematics classes.

(RA3) Students are prepared to include graded tasks in mathematics classes.

(RA4) There is a statistically significant difference between the responses of FTS and PTS in all areas investigated.

To test RA4, the following hypotheses were formulated:

H₀: There is no statistically significant difference between the responses of FTS and PTS.

¹ This type of heuristic method is based on a dialogue between the teacher and the pupils, in which the teacher helps the pupils discover new knowledge and relationships. The heuristic dialogue is part of the so-called inquire based teaching (Fleková, 2013).



H_A: There is a statistically significant difference between the responses of FTS and PTS.

In testing RA4, the chi-squared was used in relevant cases, or the Fisher's combination test at a level of significance of .05. For the purposes of the testing procedure, new contingency tables were developed grouping the following responses: *definitely no* and *rather no* as negative, and *rather yes* and *definitely yes* as positive.

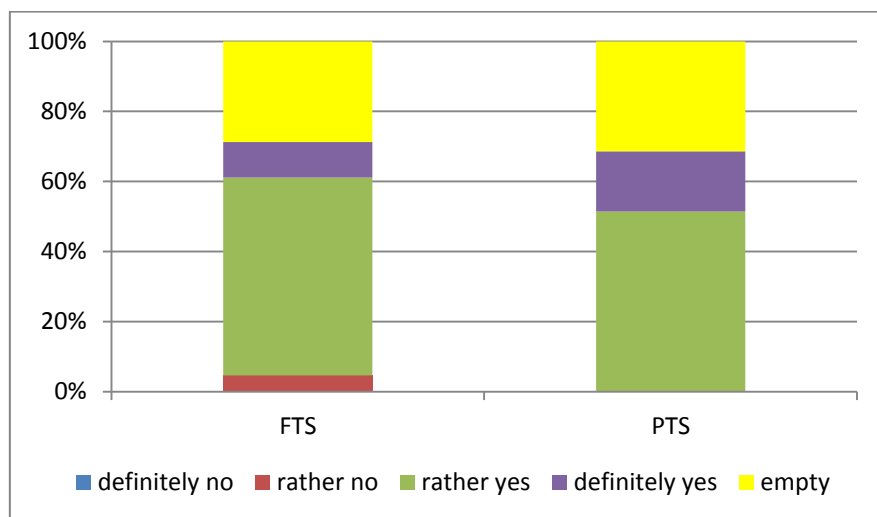
Findings

In the first item it was revealed that a total of 57.4% of FTS and 57.1% of PTS have no experience with graded tasks. Therefore, in the second item a total of 63.1% of FTS and 34.3% of PTS were unable to define this type of tasks. Where the respondents tried to define the tasks, they gave an incorrect definition, for example "*Tasks with an increasing level of difficulty.*"

In the assessment of the effectiveness of graded tasks in classes (Item 3), 10.2% of FTS and 17.1% of PTS suggested that they were absolutely convinced about the positive effect of graded tasks in mathematics classes, and 56.5% of FTS and 51.4% of PTS were rather convinced (Chart 1). A rather negative assessment was suggested by only 4.6% of FTS. A relatively high percentage of responses remained unanswered by FTS (28.7%) as well as PTS (31.4%).

In Item 3 the differences in the responses between the two groups were tested by the Fisher's test; the p-value was .3351, which is higher than the determined level of significance; therefore, the null hypothesis was not rejected. There is no statistically significant difference in the responses between FTS and PTS in the third item.

Chart 1. Assessment of the effectiveness of including graded tasks in mathematics classes

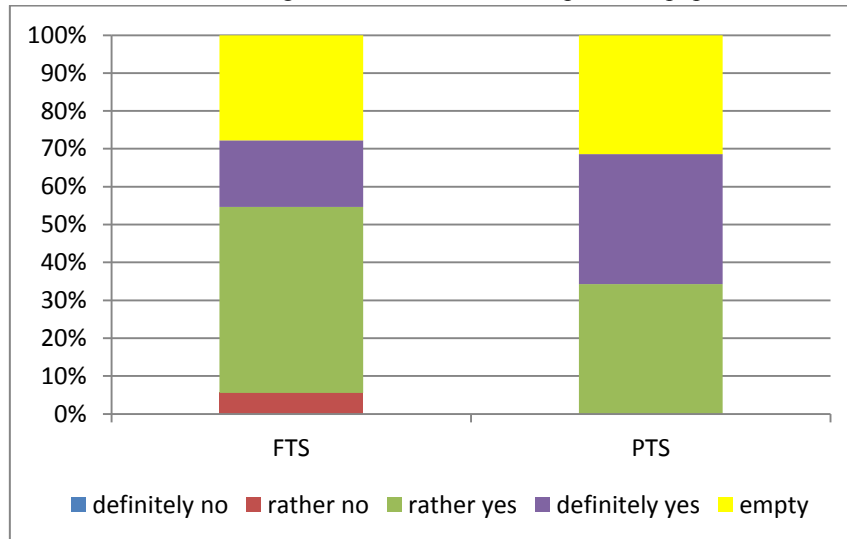


The effect of graded tasks on the development of mathematical thinking (Item 4) was assessed positively by 66.7% of FTS and 68.6% of PTS. A negative assessment was indicated by only 5.6% of FTS. A total of 27.8% of responses by FTS and 31.4% of responses by PTS remained unanswered (Chart 2).

In Item 4, there were also different responses between the groups tested by the Fisher's test. The p-value of .3314 was almost identical with the value in the previous item. This value was again higher than the determined level of significance and therefore, the null hypothesis was not rejected. There is no statistically significant difference in the responses between FTS and PTS in the fourth item.



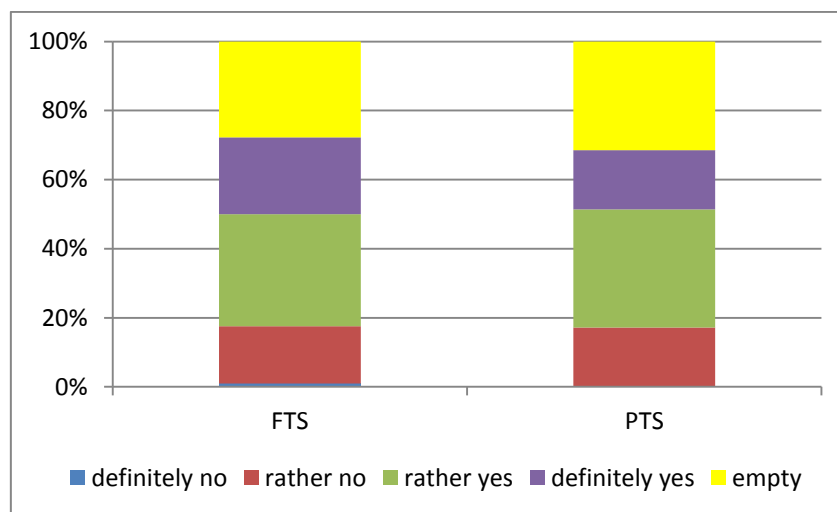
Chart 2. Assessment of the effect of graded tasks on the development of pupils' mathematical thinking



In the fifth item assessing the difficulty of including graded tasks in mathematics classes in terms of the teacher's preparation included some negative responses (Chart 3): 17.6% of FTS and 17.1% of PTS, but again, this item was dominated by positive assessment: 54.6% of FTS and 52.4% of PTS. Also here, a high proportion of questionnaires were blank (27.8% of FTS and 31.4% of PTS).

Therefore, the null hypothesis was not rejected. The p-value of 1 was determined by the chi-squared test and was again higher than the selected level of significance. There is no statistically significant difference in the responses between FTS and PTS in the fifth item.

Chart 3. Complexity of including graded tasks in mathematics classes in terms of the teacher's preparation



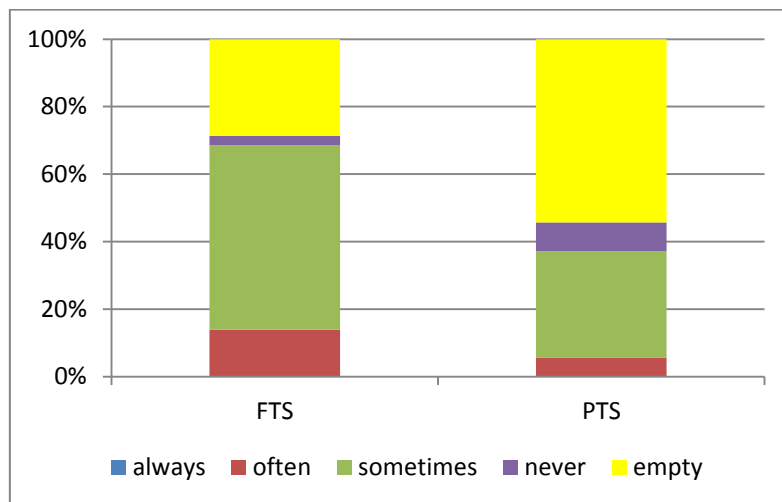
Inclusion of graded tasks in mathematics classes (Item 6) was answered as follows: always – no respondents, often – 13.9% of FTS and 5.7% of PTS, sometimes – 54.6% of FTS and 31.4% of PTS, and never – 2.8% of FTS



and 8.6% of PTS (Chart 4). In the sixth item, 28.7% of responses by FTS and 54.3% of responses by PTS were blank.

Using the Fisher's test, the p-value of .7273 was calculated, which is higher than the determined level of significance and therefore, the null hypothesis was not rejected. Also in this item, there is no difference between the groups of FTS and PTS.

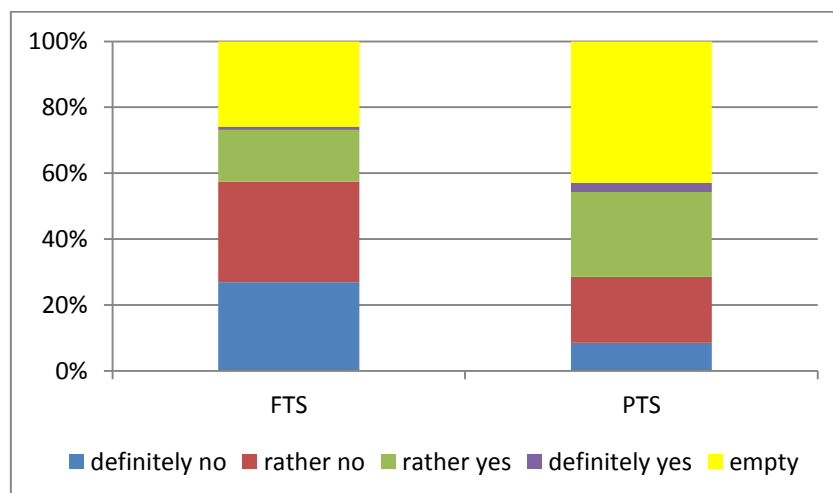
Chart 4. Frequency of including graded tasks in mathematics classes



The final item of the questionnaire focused on the degree of students' perceived readiness for teaching graded tasks. Chart 5 suggests that 16.6% of FTS and 28.6% of PTS feel prepared, while 57.5% of FTS and 28.6% of PTS feel unprepared. 25.9% of responses by FTS and 42.9% of responses by PTS were blank.

The seventh item was the only one where the assessment differed. The p-value of 0.02989 was lower than the determined level of significance and therefore, the null hypothesis was rejected and the alternative hypothesis accepted. FTS and PST assess the degree of their readiness for teaching graded tasks in a different way.

Chart 5. Assessment of readiness of FTS and PTS





Conclusions and Recommendations

The first research assumption that students know graded tasks and are able to characterize them was completely disproved. Unfortunately, most FTS and PTS have insufficient experience with graded tasks and therefore are unable to characterize their basic properties.

Similarly, the research assumption that students understand the positive impact of including graded tasks in mathematics classes was not confirmed. Although the results were not strongly negative, it was revealed that neither FTS nor PTS appreciate the potential of graded tasks in terms of developing pupils' mathematical thinking; moreover, they are not planning to include these tasks in mathematics classes on a regular basis. Logically, these students are not prepared to include graded tasks in mathematics classes, whereby the third research assumption was disproved.

The last research assumption – differences in the assessment of all areas identified – was not confirmed. On the contrary, a statistically significant difference was only in the last item. This result is probably caused by the fact that FTS do not have negative educational experiences so far due to their form of study. Therefore, their self-efficacy is based solely on their current academic achievement.

It can be concluded that the majority of responses in all monitored groups are rather negative, and a large number of respondents did not complete the questionnaire at all. The result is somewhat surprising regarding the fact that graded tasks are part of didactic mathematics courses at the Faculty of Education.

The main reasons are especially insufficient self-confidence of (pre-service) teachers in using non-standard tasks, or their limited awareness about graded tasks. It is obvious that these tasks need to be included more often in didactic mathematics seminars, pre-service teachers should be provided with an opportunity to practise them in groups as well as individually, and their positive attitude to their inclusion in mathematics classes in primary school should be supported.

A positive assessment that could be a motivation to achieve this objective was given by one of the part-time students: *"I like graded tasks and use them very often. Everybody completes what needs to be completed and the best ones get extra practice using the more difficult tasks. The important thing with children is not the difficulty of tasks but primarily their thinking. Different tasks are acceptable for different people because their thinking differs as well."*

Acknowledgements

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References

- Dofková, R. (2017). The mathematics teaching efficacy belief instrument applied to pre-service elementary school math teachers. In *ICLEL 17 Proceedings Book* (174-189). Porto: Politechnica University of Porto.
- Dofková, R. (2019). Evaluation of self-efficacy in prospective primary school teachers in the context of mathematics teaching. *Problems of Education in the 21st Century*, 77(2), 244-253.
- Fleková, A. (2013). *Heuristika ve vyučování*. Doctoral thesis. Olomouc: Univerzita Palackého v Olomouci.
- Hejný, M. & Kuřina, F. (2001). *Dítě, škola a matematika: konstruktivistické přístupy k vyučování*. Praha: Portál.
- Janík et al. (2016). *Kvalita (ve) vzdělávání: obsahově zaměřený přístup ke zkoumání a zlepšování výuky*. Brno: Masarykova univerzita.



- Kalhous, Z., & Obst, O. et al. (2002). *Školní didaktika*. Praha: Portál.
- Novák, B. (1999). *Matematika III: Několik kapitol z didaktiky matematiky*. Olomouc: Univerzita Palackého v Olomouci.
- Nováková, E. (2017). Řešení nestandardních úloh v matematických soutěžích – jedna z cest ke změně vztahu žáků k matematice. In Bártek, K., & Dofková, R., et al., *Reflexe vzdělávacích potřeb učitelů matematiky jako východisko jejich profesního rozvoje* (s. 30-38). Olomouc: VUP.
- Průcha, J. (2015). *Přehled pedagogiky: Úvod do studia oboru*. Praha: Portál.
- Švrček, J. (2008). *Tvorba a využití gradovaných řetězců matematických úloh*. Olomouc: Univerzita Palackého v Olomouci.



The Relationship between Life Satisfaction, Self-esteem and Internet Addiction Among Pre-service Teachers

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Abstract

Internet addiction since the 1990s has attracted the attention of both professional and general public all over the world. There is no uniform terminology and definition in the literature. In general, addiction to the Internet is defined as the excessive use of the Internet, which brings psychological, social, work or school complications. The aim of the research is to evaluate the relationship between potential internet addiction, life satisfaction and self-esteem among pre-service teachers. The participants were 558 pre-service teachers aged 19-26. To determine the empirical data, the following methods were used: Life Satisfaction Scale, Rosenberg Self-Esteem Scale, Young Internet Addiction Test, and Sociodemographic Questionnaire. A negative significant relationship was found between age and internet addiction among social network users. Focusing on the correlations between the dimensions of the Life Satisfaction Inventory and the results of the Internet Addiction Questionnaire, the results of the correlation matrix didn't confirm any significant relations.

Keywords: Internet addiction, life satisfaction, self-esteem

Introduction

The Internet has become an indispensable instrument, which often plays a key role in work-related activities. It has also become part of people's leisure time. Newspapers, radio or television are considered part of the information boom before the advent of the internet. In a comparison of US media users, Stempel, Hargrove, Bernt (2000) noticed a phenomenal increase in the use of the internet from only 5.3% in 1995 to 34.5% in 1999. Currently, social networks represent an important means of interpersonal communication between adolescent individuals and young adults, which allows users to share, create, and distribute information. Millions of people around the world are part of the virtual environment as users of various virtual social networks. People use social networks for the purposes of self-presentation and to create and maintain contacts with other people ((Donath & Boyd, 2004; Ellison, Steinfield, & Lampe, 2007). Personal profiles, another of the hallmarks of social networks, are common for instance at dating websites. Boyd and Ellison define online social networks according to what they allow their users to do (Boyd & Ellison 2007 p. 211). This includes the following functions: 1) Create a public or semi-public profile within a limited system; 2) Define a list of users to be linked with; 3) View and explore the links of one's contacts or other users. Boyd and Ellison emphasize the importance of a created list of contacts but do not explicitly mention the establishment of new links. According these authors, the exceptional feature of social networks is not that they allow meeting new people, but primarily the fact that people can create and visibly present their contacts through social networks (Boyd & Ellison 2007 p. 211). In the past 20 years, a new phenomenon has appeared in the literature: information technology addiction. In 1996, the phenomenon of addictive behaviour in relation to the internet was in detail described by an American clinical psychologist Kimberly Young, who also proposed the first diagnostic criteria and developed a questionnaire that measures the degree of individuals' internet addiction. According to Young, internet addiction has implication in the academic area, work, relationships, finance, and health. For this reason, she approached internet addiction as a new type of mental disorder (Young, 1996).



Since 1990s, internet addiction has attracted the professional as well as general public across the globe. So far, there is no uniform terminology and definition in the literature. Generally, internet addiction is defined as excessive use of the internet that causes psychological, social and work-related or school-related complications.

In terms of the degree of internet addiction, the prevalence in various countries ranges from 0.3% to 38% (Chakraborty, Basu & Vijaya Kumar, 2010). This discrepancy stems from different criteria that authors use to determine internet addiction, and may also be caused by the fact that the diagnostic criteria and various diagnostic instruments to detect internet addiction vary across countries (Peukert, Sieslack, Barth & Batra, 2010). In their summary, Weinstein and Lejoyeux (2010) suggest that surveys in the United States and in Europe show prevalence from 1.5 to 8.2%, while other research studies show prevalence from 6% to 18.5% (Young & Nabuco de Abreu). In the Czech Republic, the issue of internet addiction was addressed by Šmahel et al. (2009). The results of a study carried out in 2009 suggest estimated internet addiction among the general population in the Czech Republic of 3.4%, with another 3.7% at risk of addictive behaviour. According to the authors, the most vulnerable groups are individuals aged 12-15 years, where the prevalence in both categories reached 23%. So far, the largest group of users of social networks are adolescents (73%) and young adults aged 18-29 years (72%). Only 40% of adult internet users (aged 30 and older) had or have a profile on a social network (Lenhart, Purcell, Smith & Zickuhr, 2010). On average, a typical Facebook user spends 20 minutes using the networks; two thirds of users sign in at least once a day (Ellison et al., 2007). In the Czech Republic, the number of social network users is around 3 million, specifically 37.4% of users older than 16 years (Český statistický úřad, 2016). The results of the study by Sucha, Dolejš, Pipová, Maierova & Cakirpaloglu (2018) focused on playing digital games by Czech adolescents, points out that 15.65% of adolescents encounter trouble at school or with education, and 18.84% of adolescents repeatedly forget about their duties; 27.29% of all interviewed adolescents admit neglecting their leisure activities, and 10.54% admit neglecting their friends or partners. A wide range of researches point to a link between the personality dispositions of the users and the way they behave and present themselves in a virtual environment. However, previous research on the relationship between the social networks, life satisfaction and self-concept are insufficient in the Czech Republic. Acceptance by their peers and positive feedback of their own self are very important factors for social networking that may affect the development and level of the social self (self-esteem) as well as the life satisfaction of the individuals (Harter, 1999). In other words, if the Internet has the power to affect the self-esteem and life satisfaction of adolescents, it's probably as a result of social networks.

From an ontogenetic perspective, it is important to mention the period of adolescence and young adulthood. Students entering university are in the transition between two developmental periods: adolescence and young adulthood. Among new university students the period of adolescence extends and these individuals are in many respects tied to their primary family, both socially and especially materially (Kvintová, 2011). It can be concluded that adolescence is a developmental period in which assessments of the self has a significant effect on the development of self-esteem and the level of subjectively perceived life satisfaction of an individual. Adolescents tend to overestimate the importance of how other people watch them and assess them, which is reflected in increased self-criticism and emotional sensitivity (Elkind, & Bowen, 1979). As a result, they can become extremely worried about how they look or how they are assessed by other people (Burrow & Rainone, 2016). Self-esteem of an individual is sensitive to other people's assessment, even in a virtual environment (Burrow & Rainone, 2016). A recent research study also revealed a neurobiological response. Specifically, this is a significant activation of neural areas involved in reward processing when social response is given by means of "likes" under a photograph placed on a social network (Sherman, Payton, Hernandez, Greenfield, & Dapretto, 2016). In the last decade, during which the internet has become a routine part of leisure activity, researchers began to focus on the effect of internet use on life satisfaction and self-esteem. Some studies suggest negative correlations (Kraut, Patterson, Lundmark, Kiesler, Mukophadhyay, & Scherlis, 1998, Rohall, Cotten, & Morgan, 2002), others emphasise positive correlations (Kraut, Kiesler, Boneva, Cummings, Helgeson, & Crawford,



2002) but there are also studies claiming that there are no associations between these variables (Gross, Juvonen, & Gable, 2002, Harman, Hansen, Cochran, & Lindsey, 2005). Blinka et al. summarizes two consequences, to who lead existing studies regarding excessive use of the Internet (Blinka et al, 2015). The first is the decreased ability to concentrate along with experiencing boredom and psychosocial issues that are most clearly manifested in low self-esteem and social anxiety. The second consequence is particularly evident in those who have an avoidance coping style (Seepersad, 2004). In the short term the Internet can compensate the unpopularity in a team or rejection by peers (Peter, Valkenburg, Schouten, 2006), or proves helpful in escaping problems and stress (Romer, Bagdasarov, More, 2013). In the longer term, there is usually a deepening in social isolation and low self-esteem (Valkenburg, Peter, 2007). Nevertheless, the Internet, according to Blinka et al. (2015) is not the source of any of these consequences, but rather their mediator. Although it appears the Internet use can be problematic, which is, according to numerous studies associated with interpersonal difficulties, that there is still a lack of empirical interpretation of how and why did this relationship between problematic Internet use and interpersonal difficulties arise (Young, 2011).

Method

Objective of the paper

The main objective of the present research study is to extend the body of knowledge on the issue of internet addiction and to determine the relationship between potential IA, life satisfaction and self-esteem among pre-service teachers.

Research sample

The research study was conducted between 01/2019 and 03/2019 and was designed as a quantitative survey. Data collection was performed in an electronic way using Google forms, which met the methodological and research criteria of online research relevance (e.g., high degree of security, archiving and encoding during data transfer, access via generated password). The participants were 558 pre-service teachers aged 19-26. The age range of the research sample was 19 to 26 years (average age 22.02 years; SD 2.08). Participation in the research study was voluntary and anonymity of the respondents during data collection was ensured.

Research data collection methods

Data collection was performed by means of the following methods:

The Rosenberg self-esteem scale is an instrument designed by Morris Rosenberg in 1965 as a uni-dimensional construct providing information about the global attitude to the self (Blatný & Osecká, 1994) originally designed for adolescents, later extended to cover the entire population. The scale contains 10 questions – the overall score ranges from 10 to 40 points.

The Internet addiction test (IAT) has twenty items and measures the presence and severity of internet addiction. IAT presents internet addiction as an activity inhibition disorder which leads to impulsive behaviour. The twenty-item questionnaire measures the characteristics and behaviours associated with compulsive use of the internet, including compulsiveness, escape from reality, and addiction. The questions also focus on problems associated with addictive behaviour in the personal, occupational, and social domains. The questions are randomly ordered and each of them is assessed using a Likert scale. Using this scale, respondents indicate the degree of agreement or disagreement with each question. The scale ranges from 0 – least extreme behaviour to 5 – most extreme (Young, 2016).

The Life Satisfaction Inventory (Rodný & Rodná, 2001) designed for standard description of inter- and intra-individual variability of life satisfaction. The questionnaire focuses on the evaluation of overall life satisfaction



and evaluation of its various components: health, labor and employment, finance, leisure time, partnership, relationship to their own children, relationship to their own person, sexuality, friends and living.

The sociodemographic questionnaire examines the so-called demographic data such as age, gender, field of study, year of study, and questions relating to the use of social networks.

Data processing and evaluation

In the first stage, the data were transformed into an xls format compatible with MS Excel 2013, which can easily handle data exported from the electronic questionnaire.

During the second stage, the data were formally and logically checked. Further data processing was performed using the STATISTICA programme, version 13. An analysis of results distribution confirmed normal data distribution; for this reason, a parametric statistical approach was selected, particularly descriptive statistics, Pearson correlation. The tests were conducted at a 5% level of significance.

Results

Table 1. All Groups Correlations

	Age	Health	Financ e	Leisure time	Sex	Personal ity	Friends	Living	Total Life Satisfa ction	Self- esteem	Internet addiction
Age	1,00	,00	-,08	-,10*	-,08*	-,01	-,05	-,06	-,08*	-,00	-,20*
Health	,00	1,00	,40*	,48*	,35*	,60*	,42*	,35*	,72*	,12*	-,00
Finance	-,08	,40*	1,00	,46*	,28*	,44*	,38*	,54*	,70*	,17*	,00
Leisure time	-,10*	,48*	,46*	1,00	,33*	,45*	,43*	,32*	,71*	,12*	,01
Sex	-,08*	,35*	,28*	,33*	1,00	,54*	,41*	,28*	,64*	,00	,05
Personality	-,01	,60*	,44*	,45*	,54*	1,00	,59*	,43*	,80*	,16*	,04
Friends	-,05	,42*	,38*	,43*	,41*	,59*	1,00	,49*	,73*	,16*	,00
Living	-,06	,35*	,54*	,32*	,28*	,43*	,49*	1,00	,68*	,16*	,03
Total Life Satisfaction	-,08*	,72*	,70*	,71*	,64*	,80*	,73*	,68*	1,00	,18*	,02
Self-esteem	-,00	,12*	,17*	,12*	,00	,16*	,16*	,16*	,18*	1,00	-,01
Internet addiction	-,20*	-,00	,00	,01	,05	,0401	,00	,03	,02	-,01	1,00

Legend: *^{0,05} statistical significance

Table 1 presents the results of the correlations between the variables in the entire sample of pre-service teachers. The results suggest the existence of a negative significant correlation between age and internet addiction. In other words, lower age is associated with increased internet addiction. Focusing on the correlations between the dimensions of the Life Satisfaction Inventory and the results of the Internet Addiction Questionnaire, the results of the correlation matrix didn't confirm any significant relations. However, a negative significant correlation was found between the total score of Life Satisfaction Inventory and the age. We might conclude that the increasing age of the pre- service teachers is associated with lower life satisfaction. A positive significant relationship was detected between the total score of Life Satisfaction and all scales of the inventory as well with the self-esteem of the young people.

Table 2. Correlations-women



	Age	Health	Financ e	Leisure time	Sex	Personal ity	Friends	Living	Total Life Satisfa ction	Self- esteem	Internet addiction
Age	1,0	,00	-,09*	-,10*	-,10*	-,03	-,07	-,07	-,09*	-,00	-,20*
Health	,00	1,00	,41*	,47*	,38*	,62*	,42*	,37*	,73*	,07	-,01
Finance	-,09*	,41*	1,00	,47*	,29*	,44*	,41*	,57*	,71*	,15*	,00
Leisure time	-,10*	,47*	,47*	1,00	,34*	,46*	,43*	,33*	,71*	,07	,01
Sex	-,10*	,38*	,29*	,34*	1,00	,57*	,40*	,29*	,65*	-,00	,03
Personality	-,03	,62*	,44*	,46*	,57*	1,00	,60*	,45*	,81*	,13*	,04
Friends	-,07	,42*	,41*	,43*	,40*	,60*	1,00	,50*	,73*	,15*	,01
Living	-,07	,37*	,57*	,33*	,29*	,45*	,50*	1,00	,69*	,13*	,03
Total Life Satisfaction	-,09*	,73*	,71*	,71*	,65*	,81*	,73*	,69*	1,00	,13*	,02
Self-esteem	-,00	,07	,15*	,07	-,00	,13*	,15*	,13*	,13*	1,00	-,00
Internet addiction	-,20*	-,01	,00	,01	,03	,04	,01	,03	,02	-,00	1,00

Legend: * 0,05 statistical significance

Table 2 presents the results of the correlations between the variables in the sample of female pre-service teachers. The results are consistent with the results of the correlations of the entire sample of pre-service teachers. Again, there is a significant negative correlation between age and internet addiction. We can conclude that with decreasing age the addiction to internet increase. There weren't found any significant correlations between the life satisfaction scales and Internet addiction.

Table 3. Correlations- men

	Age	Health	Financ ce	Leisure time	Sex	Personal ity	Friends	Living	Total Life satisfa ction	Self- esteem	Internet addiction
Age	1,00	,00	,02	-,10	-,01	,08	,05	-,03	-,00	-,03	-,22*
Health	,00	1,00	,38*	,58*	,22*	,51*	,39*	,24*	,71*	,38*	,05
Finance	,02	,38*	1,00	,41*	,17	,49*	,24*	,41*	,65*	,30*	,02
Leisure time	-,10	,58*	,41*	1,00	,25*	,42*	,44*	,29*	,73*	,34*	,03
Sex	-,01	,22*	,17	,25*	1,00	,38*	,49*	,22*	,57*	,06	,14
Personality	,08	,51*	,49*	,42*	,38*	1,00	,53*	,34*	,76*	,31*	,03
Friends	,05	,39*	,24*	,44*	,49*	,53*	1,00	,45*	,72*	,22*	-,06
Living	-,03	,24*	,41*	,29*	,22*	,34*	,45*	1,00	,60*	,32*	-,00
Total Life Satisfaction	-,00	,71*	,65*	,73*	,57*	,76*	,72*	,60*	1,00	,41*	,05
Self-esteem	-,03	,38*	,30*	,34*	,06	,31*	,22*	,32*	,41*	1,00	-,10
Internet addiction	-,22*	,05	,02	,03	,14	,03	-,06	-,00	,05	-,10	1,00

Legend: * 0,05 statistical significance

Table 3 presents the results of the correlations between the variables in the sample of male pre-service teachers. Similarly to Table 1, also in this case a significant negative correlation was confirmed between internet addiction and age. When considering the impact of internet addiction and life satisfaction no statistical significance was found. However, negative relationship was found between the internet addiction and satisfaction with friends and



with their living. A positive relationship was revealed between the total score of life satisfaction and Internet addiction.

DISCUSSION

In the last decade, the use of social networks has had a significant effect on the ways people communicate and interact. Existing international research studies focus on an analysis of the psychological effects of the use of social networks on personality factors and behaviour in a virtual environment (Zhang, Y., & Leung, L., 2014). The results of the present study suggest that acceptance by peers and positive feedback are very important factors of social networks and may have an effect on the development and the level of individuals' social self-assessment and life satisfaction. Similarly to other research studies on self-esteem and life satisfaction conducted for example by Kraut et al. (2002) the results of the present study confirmed a positive correlation between these two variables. Similar conclusions were also formulated by Valkenburg et al. (2016), who observed that the frequency of use of social networks had an indirect effect on the level of self-assessment and well-being of users. Positive feedback concerning the profiles on social networks increases social self-assessment of adolescents and their well-being, while negative feedback decreases self-esteem and well-being. Other research studies confirming this correlation include for example (Valenzuela, Park & Kee, 2009; Kim & Lee, 2011, Utz & Beukeboom, 2011; Zywicki & Danowski, 2008). Recent studies confirm these correlations on a neurobiological level and reveal activation of the neural areas involved in reward processing in the case of positive feedback in the form of "likes" on social networks (Sherman et al., 2016). The present study revealed a positive fact that with increasing age the need of individuals to spend time on social networks decreases, both in women and men. The question remains whether this fact would also be observed in non-studying population and whether it is associated with increasing academic requirements in higher grades in university or which other factors influence this fact. As interesting finding is that self-esteem in young men is affected by positive feedback received on social networks. A different conclusion was presented by Vogel et al. (2014) who studied 145 university respondents and concluded that the frequency of use of social networks was a significant predictor of self-esteem but in a negative sense; more time spent on social networks was associated with a lower level of self-assessment. As far as women in the present sample are concerned, no statistically significant correlation was confirmed between time spent on social networks and self-esteem and life satisfaction. The results of the present study provide an interesting potential for further hypotheses, which will be subjected to further empirical examination.

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REFERENCES

- Blatný, M., & Osecká, L. (1994). Rosenbergova škála sebehodnocení: struktura globálního vztahu k sobě. *Československá psychologie*, 38(6), 481-488.
- Blinka, L., Ševčíková, A., Škařupová, K., Vondráčková, P., & Licehammerová, Š. (2015). Online závislosti. Grada.
- Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1).
- Burrow, A. L., & Rainone, N. (2017). How many likes did I get? Purpose moderates links between positive social media feedback and self-esteem. *Journal of Experimental Social Psychology*, 69, 232-236.
- Chakraborty, K., Basu, D., & Kumar, K. G. (2010). Internet addiction: Consensus, controversies, and the way ahead. *East Asian Archives of Psychiatry*, 20(3), 123.
- Donath, J., & Boyd, D. M. (2004). Public displays of connection. *Bt technology Journal*, 22(4), 71-82.
- Elkind, D., & Bowen, R. (1979). Imaginary audience behavior in children and adolescents. *Developmental Psychology*, 15(1), 38.