

INTERNATIONAL CONFERENCE ON
LIFELONG EDUCATION AND LEADERSHIP
FOR ALL

5th INTERNATIONAL CONFERENCE ON
LIFELONG EDUCATION AND LEADERSHIP
CONFERENCE PROCEEDING BOOK

Editors

Prof. Dr. Osman TITREK,

Assoc. Prof. Dr. Fariz AHMADOV

Assist. Prof. Dr. Gozde SEZEN-GULTEKIN

ICLEL 2019
(5th International Conference on Lifelong Education
and Leadership for ALL-ICLEL 2019)

Responsibility of the contents belong to the authors.

ISBN: 978-605-66495-7-8

Copyright © 2019, ICLEL Conferences
All rights reserved by
ICLEL Conferences

No part of this publication may be reproduced
or transmitted in any form by means,
electronic or mechanical, including
photocopy, or any information
storage and retrieval system, without
permission from the Publisher.

Online Publication: December 28, 2019
ICLEL Publication: ICLEL Conferences
Sakarya University Faculty of Education
54300 Sakarya, TURKEY

ICLEL Honorable Committee

Prof. Dr. Fatih Savaşan, Rector of Sakarya University, Turkey
Prof. Dr. Adalet MURADOV, Rector of Azerbaijan State University of Economics-UNEC, Azerbaijan
Prof. Dr. Abdulhalik KARABULUT, Rector of Ağrı İbrahim Çeçen University, Turkey

Head of Conference

Prof. Dr. Osman TITREK, Sakarya University, TURKEY
Assoc. Prof. Dr. Fariz AHMADOV, Azerbaijan State University of Economics-UNEC, AZERBAIJAN
Prof. Dr. Kerem KARABULUT, Ağrı İbrahim Çeçen University
Assist. Prof. Dr. Gozde SEZEN-GULTEKIN, Sakarya University, TURKEY

ICLEL Organizing Committee

Prof. Dr. Osman TITREK, Sakarya University, TURKEY
Assoc. Prof. Dr. Fariz AHMADOV, Azerbaijan State University of Economics-UNEC, AZERBAIJAN
Prof. Dr. Kerem KARABULUT, Ağrı İbrahim Çeçen University, TURKEY
Assist. Prof. Dr. Gozde SEZEN-GULTEKIN, Sakarya University, TURKEY
Assoc. Prof. Dr. Ayten Huseinli-UNEC, AZERBAIJAN
Assoc. Prof. Dr. Ilgar Seyfullayev-UNEC, AZERBAIJAN
Asst. Prof. Dr. Sugra Humbetova-UNEC, AZERBAIJAN
Asst. Prof. Dr. Kamala Najafova-UNEC, AZERBAIJAN
Asst. Prof. Dr. Samira Shamkhalova-UNEC, AZERBAIJAN
Dr. İbrahim Limon - National Ministry, TURKEY
PhD D.C. İlkin Mammadov-UNEC, AZERBAIJAN
PhD D.C. Aygün Abdulova-UNEC, AZERBAIJAN

Keynotes

Prof. Dr. Adalat Jalal Muradov -Azerbaijan State University of Economics, AZERBAIJAN
Prof. Dr. Carlos Sousa de REIS- Coimbra University, PORTUGAL
Prof. Dr. Christer OHLIN -Kristianstad University, HKR-SWEDEN
Prof. Malcolm Hoare, ENGLAND
Prof. Dr. Miroslaw Majewski - Nicholas Copernicus University, POLAND
Prof. Dr. Michele Biasutti - Padova University, ITALY
Prof. Dr. Yurdagül Mehmedoğlu - KISBU, CYPRUS
Assist. Prof. Dr. Mirzana Pasic Kodric - University of Sarajevo, BOSNIA & HERZEGOVINA

Editorial Board/ Scientific Committee

- Prof.. Dr. Stephen P. Harmon, Georgia State University, USA
Prof. Dr. Kay S. Dennis, Park University, USA
Dr. Giovanni Crisona, Italy
Prof. Dr. Michael Searson, Kean University-U.S.A
Prof. Dr. William W. Cobern, Western Michigan University - USA
Prof. Dr. Festus E. Obiakor, Valdosta State University - U.S.A
Assoc. Prof. Dr. Philip Stephenson, Cambridge University, England
Prof. Dr. Sakit Yagubov, Azerbaijan State University of Economics
Prof. Dr. Zahid Mammadov, Azerbaijan State University of Economics
Prof. Dr. Yashar Kalbiyev, Azerbaijan State University of Economics
Prof. Dr. Yadulla Hasanli, Azerbaijan State University of Economics
Prof. Rasim Hasanov, Azerbaijan State University of Economics
Prof. Dr. Paed Dr. Milon Potmešil, Ph.D. - Palacky University - Czech Republic
Prof. Dr. Libuše Ludíková, CSc., Palacky University - Czech Republic
Prof. Dr. Jirí Luska, CSc., Palacky University - Czech Republic
Prof. Dr. Carlos S. Reis, The Coimbra's University Centre for 20th Century Interdisciplinary Studies - CEIS20 Prof.
Dr. Michael Koniorodos, TEI Pireus Universty Athens- Greece
Prof. Dr. Jose Puen Guarda, Granada University-Spain
Prof. Dr. Fatima Cruz Souza, Vallodalid University- Spain
Prof. Dr. Sanatnu Kumar Swain, Banaras Hindu University, Varnasi-India
Prof. Dr. Gara Latchana, Andhra University, Visakha, Patanam- India
Prof. Dr. Chandra B Sharma, Director DEP SSA Ignou New Delhi-India
Prof. Dr. Linda Pavitola, Liepaja University - Latvia
Prof. Dr. Ilze Mikelsons, Liepaja University- Latvia
Prof. Dr. Vaidotas Viliunas, Marijampole College-Lithuania
Prof. Dr. Pedro Tadeu, Politécnico da Guarda-Portugal
Prof. Dr. Maria Eduarda Ferreira, Politécnico da Guarda-Portugal
Prof. Dr. Teresa Paiva, Politécnico da Guarda-Portugal
Prof.Dr.Ionut Vladescu University- Alma Mater-Sibiu- Romania
Prof. Dr. Mariana Marinescu, Oradea University-Romania
Prof. Dr. Vlantin Blandul, Oradea University-Romania
Prof. Dr. Christer Ohlin, Krinstianstad University-Sweden
Prof.Dr. Ahmet Zeki Saka, Black Sea Technical University, Turkey
Prof. Dr. Ali Balcı, Ankara Universitesi - Turkey
Prof. Dr. Aycan Çiçek Sağlam- Muğla University - Turkey
Prof. Dr. Meral Uysal, Ankara University -Turkey
Prof. Dr. Cengiz Akçay, Aydın University-Turkey
Prof. Dr. Elife Doğan, İstanbul University - Turkey
Prof. Dr. Münevver Çetin, Bahçeşehir University, Turkey
Prof. Dr. Mehmet Durdu Karşlı, East Mediteriannian University-Turkey
Prof. Dr. Necati Cemaloğlu, Gazi University-Turkey
Prof.Dr. Orhan Karamustafaoğlu, Amasya University, Turkey

Prof. Dr. Yücel Gelişli, Gazi University, Turkey
Prof. Dr. Esra Ömeroğlu, Gazi University, Turkey
Prof. Dr. Serpil Murtezaoğlu, İTÜ - Turkey
Prof. Dr. Nilgün Sazak, Sakarya University -Turkey
Prof. Dr. Ertuğrul Gelen, Sakarya University -Turkey
Prof. Dr. Handan Asude Başal, Uludağ University-Turkey
Prof. Dr. Kamile Demir, Alaattin Keykubat University - Turkey
Prof. Dr. Kürşat Yılmaz, Dumlupınar University - Turkey
Prof. Dr. Nurhayat Çelebi, Karabük University, Turkey
Prof. Dr. Ömer Faruk Tutkun, Sakarya University - Turkey
Prof. Dr. Özge Hacifazlıoğlu, Hasan Kalyoncu University, Turkey
Prof. Dr. Raşit Özen, Abant İzzet Baysal University - Turkey
Prof. Dr. Soner Polat, Kocaeli University - Turkey
Prof. Dr. Şenay Sezgin Nartgün, Abant İzzet Baysal University - Turkey
Prof. Dr. Şirin Karadeniz, Bahçeşehir University, Turkey
Prof. Dr. Türkan Argon, Abant İzzet Baysal University - Turkey
Prof. Dr. Zekeriya Nartgün, Abant İzzet Baysal University - Turkey
Assoc. Prof. Anar Rzayev, Azerbaijan State University of Economics
Assoc. Prof. Geray Musayev, Azerbaijan State University of Economics
Assoc. Prof. Hamid Hamidov, Azerbaijan State University of Economics
Assoc. Prof. Ragif Gasimov, Azerbaijan State University of Economics
Assoc. Prof. Shahin Bayramov, Azerbaijan State University of Economics
Assoc. Prof. Asiman Guliyev, Azerbaijan State University of Economics
Assoc. Prof. Elshan Baghirzade, Azerbaijan State University of Economics
Assoc. Prof. Adil Huseynov, Azerbaijan State University of Economics
Assoc. Prof. Dr. Giuseppe Maillelo, Masark University, Czech Republic
Assoc. Prof. Dr. Ing. Čestmír Serafin, Dr. Ing-Paed IGIP - Palacky University - Czech Republic
Assoc. Prof. Dr. PhDr. Hana Marešová, Ph.D. - Palacky University - Czech Republic
Assoc. Prof. Dr. Mgr. Štefan Chudý, Ph.D. - Palacky University - Czech Republic
Assoc. Prof. Dr. PhDr. Eva Šmelová, Ph.D. - Palacky University - Czech Republic
Assoc. Prof. Dr. RNDr. Jitka Laitochová, CSc. - Palacky University - Czech Republic
Assoc. Prof. Dr. PhDr. Hana Myslivečková, CSc. - Palacky University - Czech Republic
Assoc. Prof. Dr. Mgr. Jirí Langer, Ph.D. - Palacky University - Czech Republic
Assoc. Prof. Dr. Mohamed Johdi Salleh-International Islamic University-Malaysia
Assoc. Prof. Dr. Melda Yıldız, Kean University-U.S.A.
Assoc. Prof. Dr. Ortan Florica, Oradea University-Romania
Assoc. Prof. Dr. Luisa Esteban-University of Zaragoza, Spain
Assoc. Prof. Dr. Pablo García Sempere, University of Granada - Spain
Assoc. Prof. Dr. Rosa Branca Tracana, Polytechnic of Guarda - Portugal
Assoc. Prof. Dr. Ahmet Yıkılmış, Abant İzzet Baysal University - Turkey
Assoc. Prof. Dr. Tufan Adıgüzel, Bahçeşehir University, Turkey
Assoc. Prof. Dr. Abdurrahman İlğan, Düzce University - Turkey
Assoc. Prof. Dr. Aydın Balyer, Yıldız Teknik University - Turkey

Assoc. Prof. Dr. Cevat Elma-Samsun 19 Mayıs University - Turkey
Assoc. Prof. Dr. Emine Babaođlan, Yozgat Bozok University, Turkey
Assoc. Prof. Dr. Ebru Ođuz, Mimar Sinan University - Turkey
Assoc. Prof. Dr. Fatime Balkan K1Y1C1, Sakarya University-Turkey
Assoc. Prof. Dr. G1lřah Bařol, Tokat Gaziosmanpařa University - Turkey
Assoc. Prof. Dr. G1ven 1zdem, Giresun University - Turkey
Assoc. Prof. Dr. Mustafa Altun, Sakarya University - Turkey
Assoc. Prof. Dr. Mehmet Akif Helvacı- Uřak University - Turkey
Assoc. Prof. Dr. Neře G1ler, İzmır Democracy University - Turkey
Assoc. Prof. Dr. Nuray Tařtan, Kırkkale University, Turkey
Assoc. Prof. Dr. P1vels Jurs- Liepaja University- Latvia
Assoc. Prof. Dr. Tuncer B1lb1l-Trakya University - Turkey
Assoc. Prof. Dr. T1rkay Nuri Tok, İzmır Democracy University - Turkey
Asst. Prof. Dr. Benjamin C. Herman-University of South Florida - USA
Assist. Prof. Nurhodja Akbulayev, Azerbaijan State University of Economics
Asst. Prof. Dr. Dilek Yalız Solmaz-Anadolu University-Turkey
Asst. Prof. Dr. H1seyin Kaygın-Bartın University, Turkey
Asst. Prof. Dr. Muhammet 1ztabak,Fatih Sultan Mehmet University, Turkey
Asst. Prof. Dr. 1zcan Erkan Akg1n-İstanb1l Medeniyet University - Turkey
Asst. Prof. Dr. Lokanath Mishra- Director of Vivek College Bijnor - India
Asst. Prof. Dr. Bipasha Sinha- Loreta College Kolkata - India
Asst. Prof. Dr. Mohammed el Homrani- Granada University - Spain
Dr. Neman Muradli, Azerbaijan State University of Economics
Dr. Ogtay Guliyev, Azerbaijan State University of Economics

ICLEL Secreteriat

M.A. İlkin Mamadov – UNEC, Azerbaijan
M.A. Vasif M Tudifak – UNEC, Azerbaijan
M.A. Kaan Arık - Beykoz University, Turkey
Teacher İnci İlgın - Sakarya University, Turkey
Teacher Selen 1ilmen - Sakarya University, Turkey
Teacher 1zlem Din1 - Sakarya University, Turkey
St. Hasan Titrek - D1zce University, Turkey
St. Fahrettin Bayram - Sakarya University, Turkey
Teacher Ayfer Titrek - National Ministry, Turkey
St. Fatmag1l Titrek - National Ministry, Turkey
Lecturer Ceren 1etin - Sakarya University, Turkey
řaban Merg1l - Sakarya TV, Turkey
M.A., Sevda Huseynova – UNEC, Azerbaijan



Learning Tasks as Important Didactic Category for the Development of Key Competencies

Jitka PLISCHKE¹,

¹*Asst. Prof., Palacký University Olomouc, Faculty of Education, Institute of Education and Social Studies
Email: jitka.plischke@upol.cz*

Radka DOFKOVÁ²

²*Asst. Prof., Palacký University Olomouc, Faculty of Education, Department of Mathematics
Email: radka.dofkova@upol.cz*

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

<i>Foodstuff (100 g)</i>	<i>Sodium content per 100 g of foodstuff (mg / 100 g)</i>	<i>Potassium content per 100 g of foodstuff (mg / 100 g)</i>	<i>Calcium content per 100 g of food (mg / 100 g)</i>
<i>Sausages</i>	827		42
<i>Pork</i>	45	400	
<i>Beef</i>		334	8
<i>Cottage cheese</i>	29	106	
<i>Cream soft cheese</i>	918		585
<i>White yogurt</i>	62	190	
<i>Bread</i>		110	20
<i>Rice</i>	113		135
<i>Boiled potatoes</i>	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.

Acknowledgement

The article has been funded by IGA projects of Palacky University Olomouc: Aspects of the school and off school environment affecting the formation of the value of education of pupils and students in a different socio-cultural environment (IGA_PdF_2019_016). Professional self-concept of the beginning academic workers in relation to their critical thinking (IGA_PdF_2019_033).

The paper has been also supported by Operational Program Research, Development and Education project The support of teachers in practice as a tool of the development of key competencies (No. CZ.02.3.68/0.0/0.0/16_011/0000660).

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*. Sabiedriba. Integrácija. Izglītība. Starptautiskās zinātniskās Konferences Materiāli 2019.gada 24.-25.maijs. Society. Integration. Education. Proceedings of the International Scientific Conference May 24th-25th, 2019. Rezekne: Rēzeknes 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/trvp>.
- 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.



Mentoring Support System to Foster Novice Teachers' Well-Being and Integration in the Education Institution

Dina MOLDOVANA¹

¹*Mg.edu., University of Latvia, Faculty of Education, Psychology and Art, Imantas 7.līnija 1*
E-mail: dinamoldovana@gmail.com

Indra ODINA²

²*Prof., University of Latvia, Faculty of Education, Psychology and Art, Imantas 7.līnija 1*
E-mail: indra.odina@lu.lv

Ligita GRIGULE³

³*Lecturer., University of Latvia, Faculty of Education, Psychology and Art, Imantas 7.līnija 1*
E-mail: ligita.grigule@lu.lv

Anna STAVICKA⁴

⁴*Assist.prof., University of Latvia, Faculty of Education, Psychology and Art, Imantas 7.līnija 1*
E-mail: anna.stavicka@lu.lv

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” (Langdrige, 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].
- Grimstath, 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].
- Mikelsons, 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., Ludtke, 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].



The risks created by learning overload for grade 1-3 pupils

Pāvels JURŠ

Asoc. professor, Dr.paed., Liepaja University, researcher of Liepaja University Institute of Educational Sciences

Address: Liela str. 14, LV – 3401, Latvia. E-mail: pavels.jurs@liepu.lv

Agate CUKURA

PhD student of Liepaja University

Address: Liela str. 14, LV – 3401, Latvia. E-mail: agate.cukura@gmail.com

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 pediatru 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, Martinsone, 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 pediatru 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.
- Vinniņa, 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.



The Role of the School Principal in an Angolan School Organization

Marta ABELHA¹

¹CEIS20, University of Coimbra, Coimbra, Portugal
E-mail: mabelha@upt.pt

Idalina MARTINS²

²Agrupamento de Escolas de Estarreja, Aveiro, Portugal
E-mail: idalinamariamartins@gmail.com

Ana Sílvia ALBUQUERQUE³

³IJP, Portucalense University, Porto, Portugal
E-mail: anan@uportu.pt

Sofia MOTA⁴

⁴IJP, Portucalense University, Porto, Portugal
E-mail: amota@upt.pt

Joaquim CHIHOCO⁵

⁵Portucalense University, Porto, Portugal
E-mail: joaquimchihoco@gmail.com

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.



A Postmodern Counselling Approach: Solution-focused brief therapy

Cansu BAYRAKCI¹

¹*Üsküdar University, Social Sciences Institute, PhD Student in Psychology*
Email:cansualann_91@hotmail.com

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 bringing 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 as 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 Zubaroglu, 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 Danışma ve Rehberlik Dergisi*, 2(12), 23-38.
- Doğan, S. (2000). Okul Psikolojik Danışmanları İçin Yeni ve 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 Danışma 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. İçağasıoğlu Çoban ve S. Attepe Özden (Haz.), *Psikiyatrik Sosyal Hizmet* (s. 371-382). Ankara: Nobel.



Relationship between Morphological Features and Lower Limb Explosive Strength in Boys

Marijana HRASKI¹,

¹*Asst.prof., University of Zagreb, Faculty of Teacher Education,
Email: marijana.hraski@ufzg.hr*

Željko HRASKI²

²*Asso.prof., University of Zagreb, Faculty of Kinesiology,
Email: zhraski@kif.hr*

Vatroslav HORVAT³

³*Asso.prof., University of Zagreb, Faculty of Teacher Education,
Email: vatroslav.horvat@ufzg.hr*

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 jet. 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	-0,48	-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 poorer 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 ofvmaximal vertical jump height, revisited. *Int Sports J* 6,107.



The Effect of the School Culture on Teacher's Behaviors

Osman TİTREK

**Prof. Dr. Education Faculty, Sakarya University
E-mail: otitrek@sakarya.edu.tr**

Mirzana PAŠIĆ KODRIĆ

**Assist. Prof. Dr. Faculty of Education, University of Sarajevo & International University of Sarajevo
E-mail: mpkodric@pf.unsa.ba**

Tuba AKKAŞ ERGÜN

**MA Student, Sakarya University Educational Science Institute
E-mail: tuba.ergun@ogr.sakarya.edu.tr**

Hatice Kübra KALINCI

**MA Student, Sakarya University Educational Science Institute
E-mail: hatice.kalinci@ogr.sakarya.edu.tr**

Zeynep KOÇUM

**MA Student, Sakarya University Educational Science Institute
zeynep.kocum@ogr.sakarya.edu.tr**

Nermin AKICI

**MA Student, Sakarya University Educational Science Institute
E-mail: nermin.akici@ogr.sakarya.edu.t**

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" (Arpaguş,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 Arpağuş(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 (10 items)</i>	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 (15 items)</i>	164	16,3780	,249	3,27
<i>Items related to school administration (7 items)</i>	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



	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				
	41 and above	32	77,50				
<i>Items related to school - family cooperation</i>	21-25	18	75,39				
	26-30	62	77,73				
	31-35	42	93,36	4	4,500	1,152	,343
	36-40	10	67,30				
	41 and above	32	86,25				
<i>Items related to students</i>	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 $p < 0,05$.

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 i 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	In -Group	44,582	158	,289		
	16-20 years	8	38,75	6,94						
	21-25 years	4	38,00	3,46	Total	46,716	163			
	26 and above	18	35,77	4,10						
	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	In-group	26,635	158	,158		
	16-20 years	8	45,50	8,76						
	21-25 years	4	47,50	0,57	Total	26,991	163			
	26 and above	18	42,22	5,30						
	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	In group	56,920	158	,388		
	16-20 years	8	17,25	4,92						
	21-25 years	4	14,00	1,15	Total	66,342	163			
	26 and above	18	16,33	3,10						
	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	In groups	41,397	158	,263		
	16-20 years	8	21,50	2,32						
	21-25 years	4	20,50	0,57	Total	42,597	163			
	26 and above	18	21,88	4,24						



	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 seniortiy has increased, the adaptation to organisational culture has increased further.

When we compare this project with the others, in a sample of Arpaguş(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

- Açıklalın, 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).
- Firat, 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

Krasimira BENKOVA¹

Professor, Trakia University, Medical Faculty, Social Sciences Department

Email: b_enkova@abv.bg

Vesela MAREVA²

PhD student, Trakia University, Medical Faculty, Social Sciences Department

Email: vesela.mareva@gmail.com

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. Dzhabarova, 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.

Acknowledgements

The authors express their gratitude for the support and funding of this article of the Faculty of Medicine at the Trakia University, Stara Zagora.

References

- Coombs & Ahmed, 1974 , p. 8
- 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
- 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

*5thINTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ AzerbaijanStateUniversity of Economics-Baku/AZERBAIJAN*



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

Ana CAMPINA¹

¹ Assistant Professor, Portucalense University, Law Department, Researcher Integrated, IJP Portucalense Institute for Legal Research Email: acampina@upt.pt

Carlos RODRIGUES²

² Assistant Professor, Portucalense University, Law Department, Researcher Integrated, IJP Portucalense Institute for Legal Research Email: crodrigues@upt.pt

Universidade Portucalense Infante D. Henrique

Rua Dr. António Bernardino de Almeida, 541, 4200-072 Porto, Portugal

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 1789*⁵, 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, Strasburg, 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.¹ 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.” Poiares, 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

¹²*Declaration 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^o 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 portal¹⁸ 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/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_geracionais_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

*5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



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)

Ana CAMPINA¹

¹ Assistant Professor, Portucalense University, Law Department, Researcher Integrated, IJP Portucalense Institute for Legal Research Email: acampina@upt.pt

Manuela MAGALHÃES²

² Associated Professor, Portucalense University, Law Department, Researcher Integrated, IJP Portucalense Institute for Legal Research Email: mmdmms@upt.pt

Universidade Portucalense Infante D. Henrique

Rua Dr. António Bernardino de Almeida, 541, 4200-072 Porto, Portugal

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 Dahesh 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 of 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.

*5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



- 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

Irina N. GOLITSYNA¹

¹*Kazan (Volga) Federal University, High School of Information Technologies and Intelligent Systems
Email: Irina.Golitsyna@gmail.com*

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.

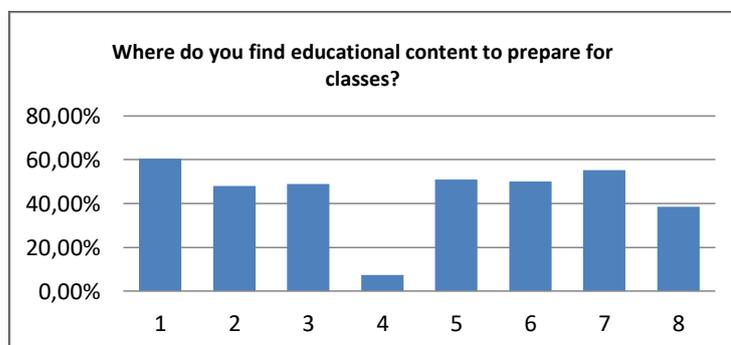


Figure 1. Students' answers to the question: "Where do you find educational content to prepare for classes?"

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.

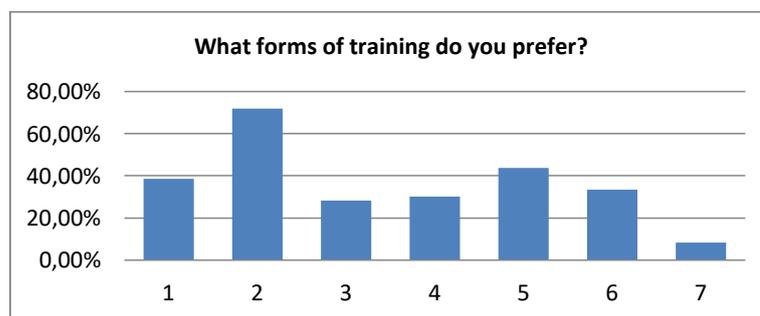


Figure 2. Students' answers to the question: “What forms of training do you prefer?”

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] // *Vysyshee 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.).

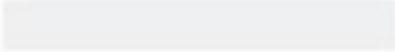
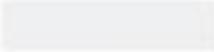
PLAGIRISM REPORT HERE 4,65 %



Казанский (Приволжский)
федеральный университет

СПРАВКА о результатах проверки текстового документа на наличие заимствований

Проверка выполнена в системе
Антиплагиат.ВУЗ

Автор работы	Голыцина Ирина Николаевна
Подразделение	Высшая школа ИТМС
Тип работы	Статья
Название работы	Informal learning in the educational process of IT professionals
Название файла	Голыцина И.И..pdf
Процент заимствований	4,65%
Процент цитирования	1,18%
Процент оригинальности	93,97%
Дата проверки	11:21:28 20 мая 2019г.
Модули поиска	Сводная коллекция ЗЭС; Коллекция РГБ; Цитирование; Модуль поиска периодических заимствований; Коллекция eLIBRARY.RU; Коллекция ГАРАНТ; Модуль поиска Интернет; Модуль поиска "НПФУ"; Коллекция Мультиязык; Модуль поиска перефразированной eLIBRARY.RU; Модуль поиска перефразированной Интернет; Модуль поиска общепотребительных выражений; Кольцо вузов
Работу проверил	Сосновская Евгения Александровна ФГО Удмуртского
Дата подписи	  Подпись проверяющего

Чтобы убедиться
в подлинности справки,
используйте QR-код, который
содержит ссылку на отчет.



Отвечая на вопрос, является ли обнаруженное заимствование
корректным, система оставляет на усмотрение проверяющего.
Представленная информация не подлежит использованию
в коммерческих целях.



Teacher Candidates' Views on Effectiveness, Managerial Effectiveness and Mobbing

Sibel GÜVEN¹

¹Assoc. Prof. Dr. Çanakkale Onsekiz Mart University, Faculty of Education, Primary Education Department
Email: s_guven@comu.edu.tr

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 (Karlı, 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 (yıldırma)", "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 (Arnejic, 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 (yıldırma), 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; Amejic, 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.

Referances

- 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. Fratzi. *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.
- Commock, 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). Yönetmelik etkililik ölçeğinin türkçeye uyarlanması, *Buca Eğitim Fakültesi Dergisi*, S. 28, S.16-29.
- Karatepe, S. (2005). Yönetmelik etkililik: okul yönetiminde yönetmelik etkililiğinin astlarla ilişkiler boyutu, *Süleyman Demirel Üniversitesi, İktisadi ve İdari Bilimler Fakültesi Dergisi*. C.10, S.2, s.307-326. Isparta
- Karlı, M. D. (2004). *Yönetmelik 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. Fratzi. *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

Ebru AYKAN¹

¹Assoc. Prof., Kayseri University, Faculty of Applied Sciences, Department of Human Resource Management,
Email: ebruaykan@kayseri.edu.tr

Mualla AKÇADAĞ²

²Ass. Prof., Cumhuriyet University, Faculty of Economic and Administrative Sciences, International Trade and Logistics
Department, Email: makcadag@cumhuriyet.edu.tr

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 Synnstedt [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]; Silptheap [40] ; Yulishasri and Jin [10]). However, According to Tan [7]; Tan and Zailani [39]; Silptheap [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.

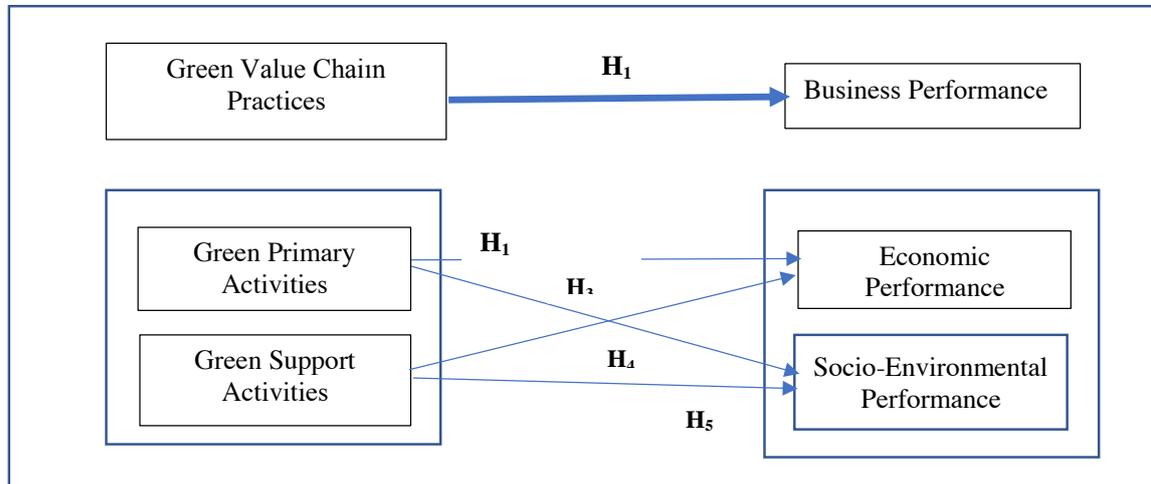


Figure 1. Research Model

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	In 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			



	demands.			
Green Support Activities	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 (R²) 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	0.171	11.11	0.00
Green Support Activities	0.164	0.072		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	0.303	11.55	0.00
Green Support Activities	0.281	0.067		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]; Yuliasri 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.;Melnyk, 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.; Synnestvedt, 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.
- Yuliharsi, 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

Prof. Dr. Şenay SEZGIN NARTGÜN¹

¹BAIBU, Faculty of Education, Bolu
Email: szbn@yahoo.com

Didem ÇELİK YILMAZ²

²BAIBU, Institute of Educational Sciences, Ph.D. Student, Bolu
Email: didemcelikyilmaz@gmail.com

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.
- Büyükköztürk, 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

Didem ÇELİK YILMAZ¹

¹*BAIBU, Institute of Educational Sciences, Ph.D. Student, Bolu*
Email: didemcelikyilmaz@gmail.com

Prof. Dr. Türkan ARGON²

²*BAIBU, Faculty of Education, Bolu*
Email: turkanargon@hotmail.com

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 take 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; İşletme 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 Yönetimi, 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 In 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

Gökhan ILGAZ¹

¹*Dr., Trakya University, Faculty of Education, Educational Sciences Department
Email: gokhani@trakya.edu.tr*

Menekşe ESKİCİ²

²*Dr., Kırklareli University, Faculty of Science and Art, Educational Sciences Department
Email: meneskici@hotmail.com.tr*

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	
	Checked	10533	2060	12593	0,80*
Total		41776	12084	53860	
Approaches to individualized learning	Not checked	23987	8740	32727	
	Checked	17789	3344	21133	0,127*
Total		41776	12084	53860	
Teaching students with special needs	Not checked	26133	8987	35120	
	Checked	15643	3097	18740	0,103*
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	
	Checked	17492	3816	21308	0,088*
Total		41776	12084	53860	
Student career guidelines and counselling	Not checked	29719	9086	38805	
	Checked	12057	2998	15055	0,038*
Total		41776	12084	53860	
Internal evaluation or self-evaluation	Not checked	24468	8722	33190	
	Checked	17308	3362	20670	0,117*
Total		41776	12084	53860	
Use of evaluation results	Not checked	25195	8754	33949	
	Checked	16581	3330	19911	0,105*
Total		41776	12084	53860	
Teacher-parent cooperation	Not checked	23882	8163	32045	
	Checked	17894	3921	21815	0,088*
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 Gencil (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

- Arcağök, 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, Yayımlanmamış Yüksek Lisans tezi, Ankara Üniversitesi Sağlık Bilimleri Enstitüsü, Ankara.
- Ayaz, C. (2016). Öğretmenlerin yaşam boyu öğrenme eğilimlerinin bazı değişkenler açısından incelenmesi. Yayımlanmamış 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. Yayımlanmamış Doktora tezi, Abant İzzet Baysal Üniversitesi, Eğitim Bilimleri Enstitüsü, Bolu.
- Gencil, 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.



- Seferođlu, 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 örneđi), Kastamonu Eğitim Dergisi, 23 (4), 1553-1566.



Cultural Globalization and Its Reflections in Education

Abbas ERTÜRK,

Muğla Sıtkı Koçman University, Institute of Education Sciences, Educational Administration Department
Email: abbaserturk@mu.edu.tr

Emrah Dönmez,

Muğla Sıtkı Koçman University, Institute of Education Sciences, Educational Administration Department
Email: emrahdonmez123@gmail.com

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 (Naisbitt, 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, Akınhay, 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 anlamları 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



Foreign Students Growth Trends in Georgia

Asiman QULIEV¹

¹Associate Professor of Azerbaijan State University of Economics (UNEC), Azerbaijan
E-mail: as.guliyev@unec.edu.az

Nino ABESADZE²

²Associate Professor of I. Javakhishvili Tbilisi state University, Georgia
E-mail: nino.abesadze@tsu.ge

Rusudan KIKLADZE³

³Associate Professor of Georgian Technical University, Georgia
E-mail: rusudan1103@yahoo.com

Lala AMANOVA⁴

⁴Associate Professor of Azerbaijan State University of Economics (UNEC), Azerbaijan
E-mail: lala.amanova@gmail.com

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 (Abesadze, 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 high quality 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

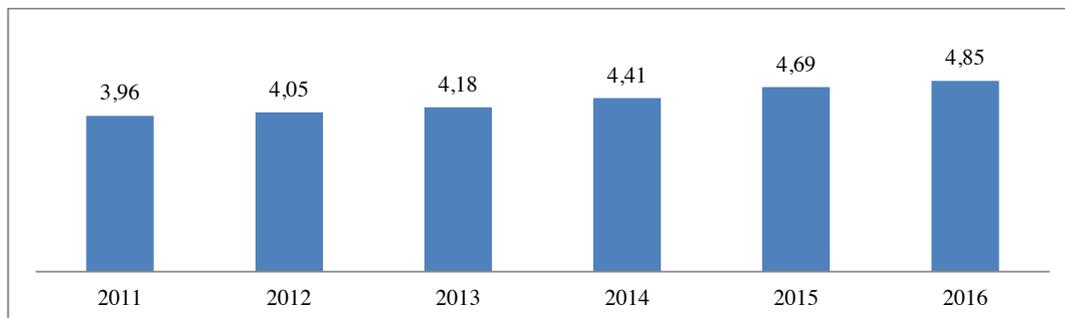
In the article is applied qualitative and quantitative methods of data analysis widely accepted in economic science (Gelashvili, S., Abesadze, N., Abesadze O., 2015:37): the methods of statistical observation, grouping and analysis were used in the research process. The graphical expression method is 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.

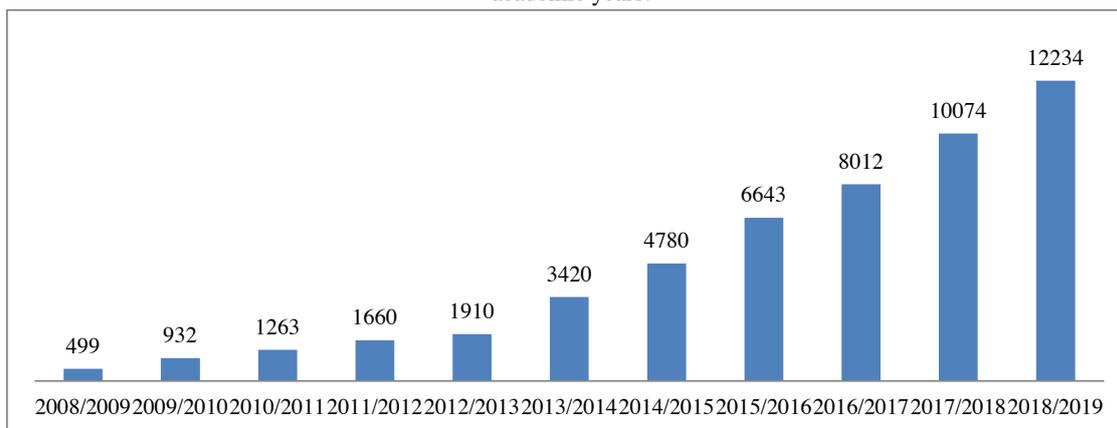
Chart 1. Number of foreign students (mln man) 2011-2016



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

*5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



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. *Journa 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 Proceeding.*, pp 51-56.

*5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



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_profil_i_a5_geo.pdf
ISET Online Survey, 2016



Social Development and Education Interaction

Melik BÜLBÜL

Prof. Dr., Atatürk University Education Faculty, Department of Foreign Languages
Email: bulbulm@atuni.edu.tr; mbulbul@agri.edu.tr

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>
<u>2009</u>	<u>2005</u>	<u>2005</u>	<u>2008</u>	<u>2005</u>	<u>2009</u>	<u>2010</u>	<u>2008</u>	<u>2013</u>	<u>2012</u>
<u>0,36</u>	<u>0,30</u>	<u>0,33</u>	<u>0,31</u>	<u>0,43</u>	<u>0,40</u>	<u>0,48</u>	<u>0,39</u>	<u>0,23</u>	<u>0,33</u>

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	-	-
ARJANTIN	13,97	15,81	10	10,1	75
JAPAN	9,50	22,31	10	-	-
TURKEY	-	14,35	12	5,6	75

Source: Cumhur Günkör; 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. Sickle 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 hem both in France and around the world. Rousseau is a libertarian and ’egalitarian düşün 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 Düşün Hazırlıkları, (Çev. Kamuran Şipal), Cem Yayınevi: İstanbul.
- Kaynak, M. (2011), *Kalkınma İktisadi*, 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/>



Peculiarities of State Funding Priority Educational Programs and Expense Efficiency

George ABUSELIDZE¹

¹ *Batumi Shota Rustaveli State University, Department of Finance, Banking and Insurance, Georgia*
Email: george.abuselidze@bsu.edu.ge / abuseri@mail.ru

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).

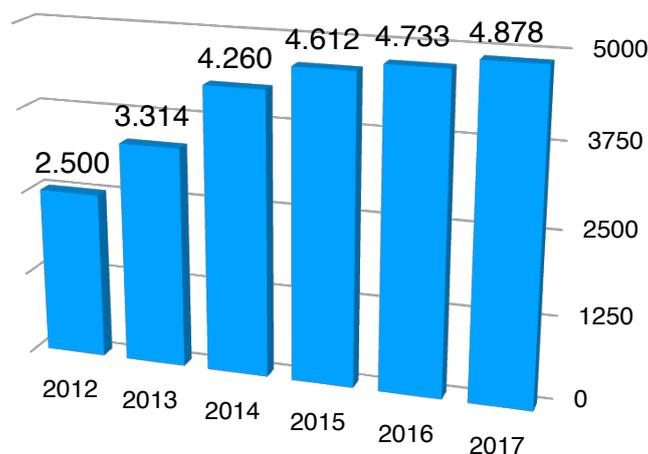


Figure 1: Number of enrolled students

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:

$$IRR = \sum \frac{\text{Future income}}{\Sigma(1+r)^t} - \text{Initial investment}, \text{ Where}$$

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).

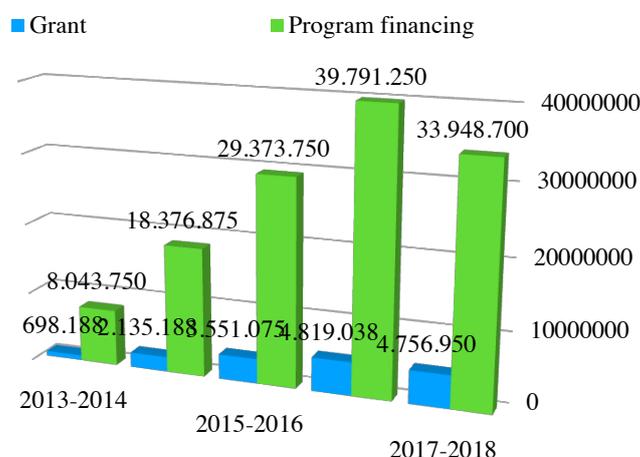


Figure 2: Funding of the priority programs



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 causation. 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.

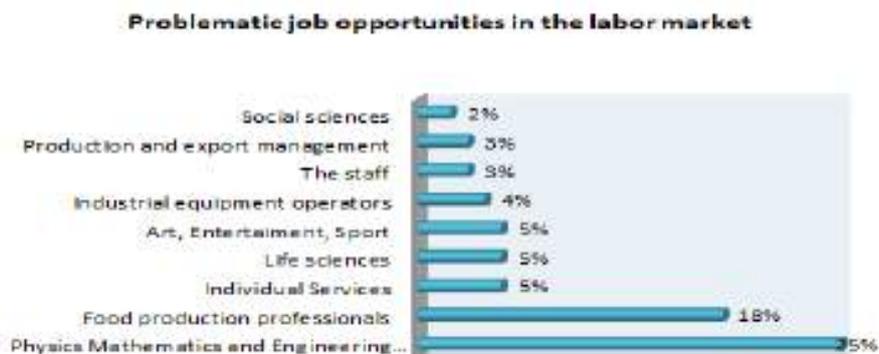


Figure 3. Problematic job opportunities in the labor market

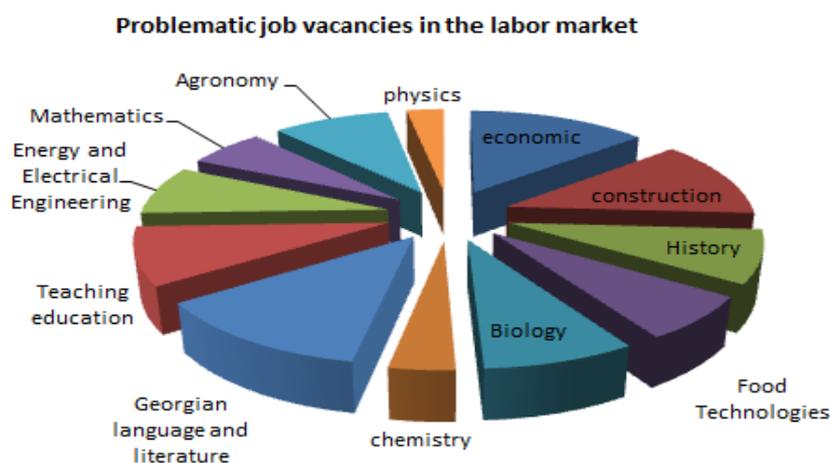


Figure 4. Problematic job vacancies in the labor market

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 method, 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.

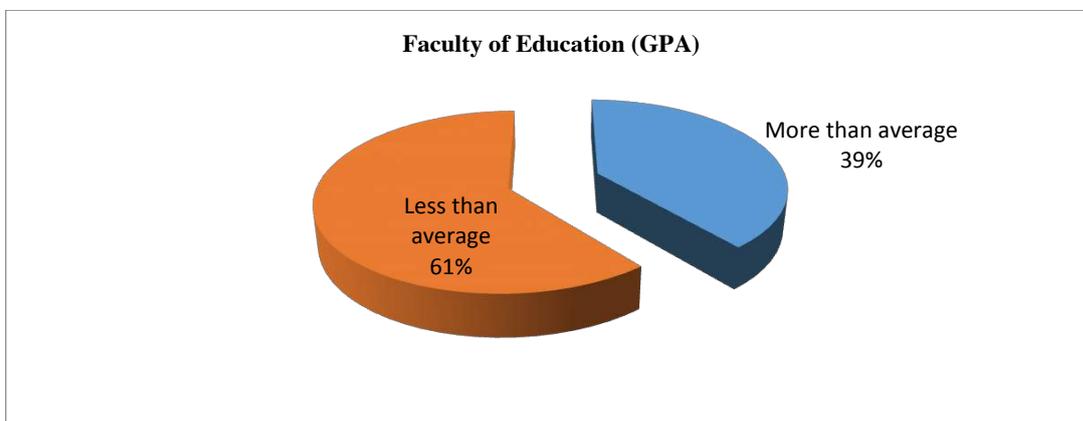


Figure 5

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.

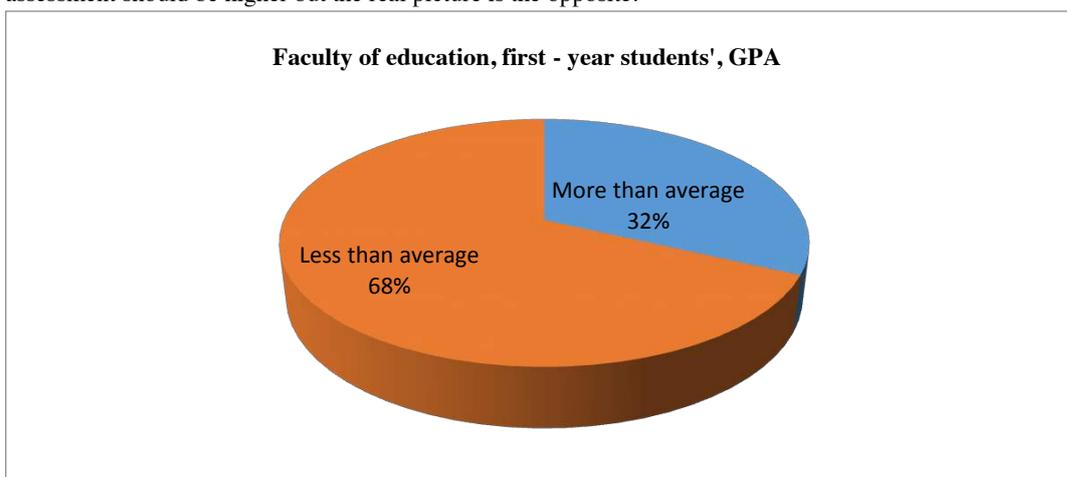


Figure 6

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.

Acknowledgement

This work was supported by the Ministry of Education, Culture and Sport (Batumi, Adjara), Georgia [grant number 04-05/129]



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

Zdeněk RECHTIK¹

¹Lecturer, Palacky University in Olomouc, Faculty of Education, Department of Primary and Pre-primary education
Email: zdenek.rechtiik@upol.cz

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-Gemsera, 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 largescale cross-sectional study. *Child Development*, 76(5), 1092–1103.



Education and Development: Efforts to Measure Human Well-being

Adalat MURADOV¹

¹ Prof. Dr. Rector, Azerbaijan State University of Economics (UNEC)
Email: rector@unec.edu.az

Yadulla HASANLI²

² Dr. prof. director, Scientific Research Institute of Economic Studies under Azerbaijan State University of Economics (UNEC) and Institute Control Systems of ANAS
Email: yadulla.hasanli@uec.edu.az, yadulla59@mail.ru

Fargana MUSAYEVA³

³ PHD, Ass.prof. Institute of Economics of ANAS
Email: fargana.musayeva@gmail.com

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 Moks-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.

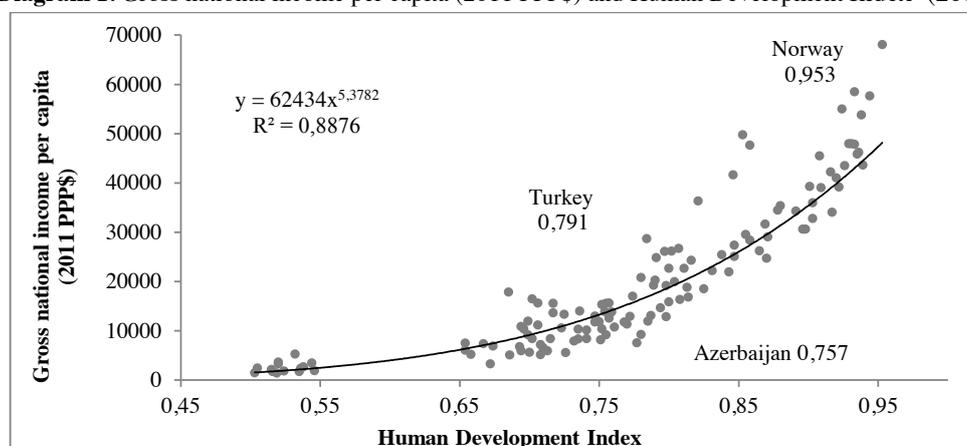
HDI varies between 0-1, approaching the unit indicates a high level. 1 - 0.800 - shows the ranking of countries with the highest, 0.799-0.700 - with high, 0.699 - 0.550 - with medium, and below 0.550 - with weak human development. This coefficient in Azerbaijan was, equal to 0.640 in 2000, increased 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



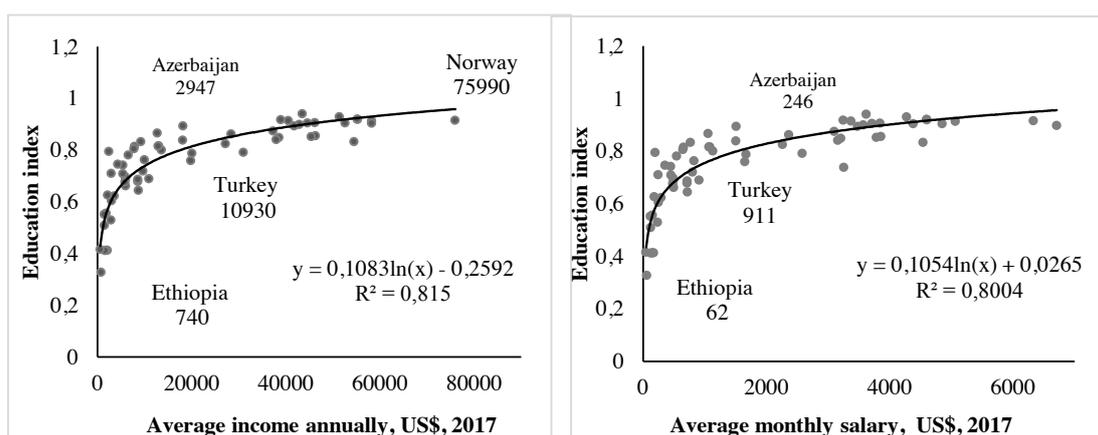
associated with the education of women. This is explained by the fact that educated women have easier access to health care, on the other hand, they have a greater impact on their lives and the lives of their children, and on managing the economy. According to the results of research in the studied years 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.

$$\text{DLOG}(\text{EXPENDIT}) = 0.041686 + 0.806659 * \text{DLOG}(\text{INCOME}) \quad (1)$$

(s.e.) (0.044567) (0.202289)

R-squared = 0.531794 Adjusted R-squared=0.498351 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:

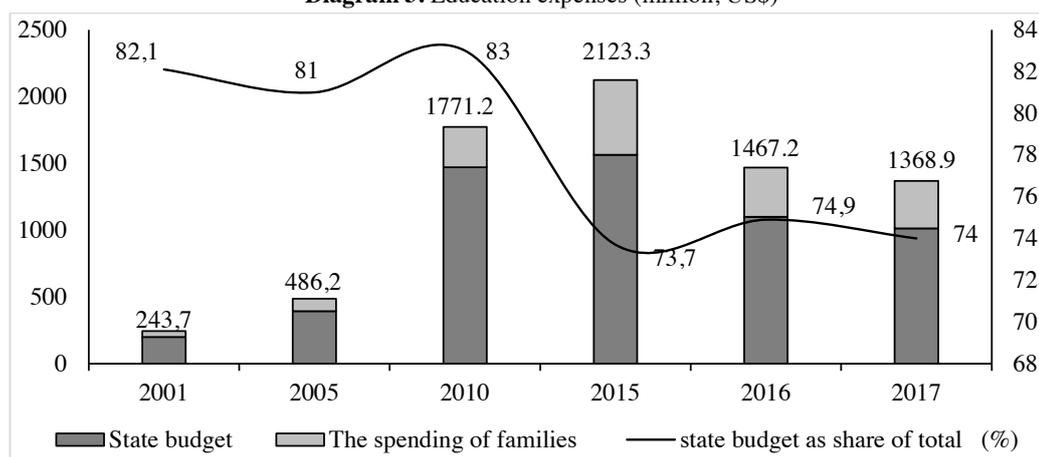
- ✓ Expenditures from the state budget
- ✓ Family Education Expenditures
- ✓ Funds for staff development allocated by institutions.

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.

Diagram 3. Education expenses (million, US\$)



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.



Relationship between Motor Skills and Academic Performance in Preschool Children

Ludmila MIKLÁNKOVÁ¹

¹*Assoc. Prof. Dr., Department of primary and pre-primary education, Faculty of Education Palacký University in Olomouc, Czech Republic, E-mail: Ludmila.miklankova@upol.cz*

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

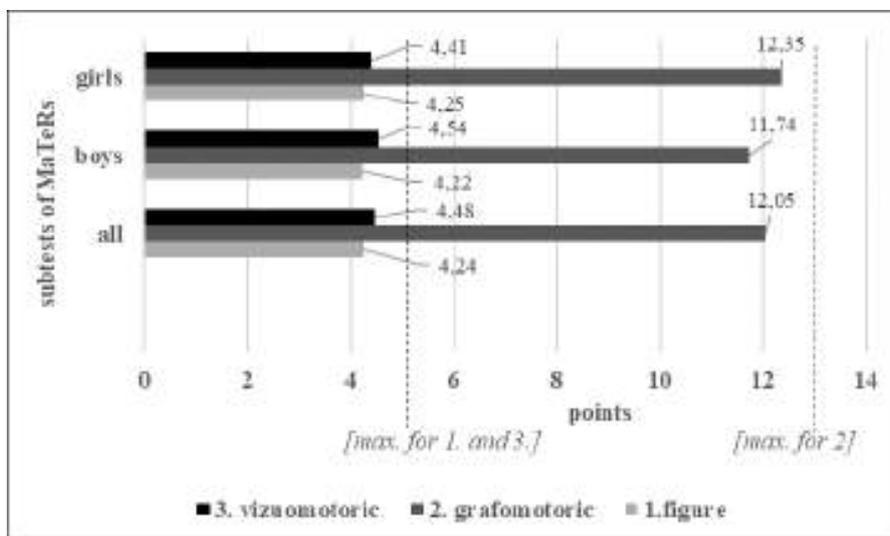
from kindergartens as part of compulsory pre-school attendance. Compulsory pre-school education in the Czech Republic applies to children who reach the age of six in the following school year and are this type of education leads to compulsory primary school education. Primary school education starts 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; nboys=50, ngirl=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.



- Boncoddio, 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., 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.



Mobility of Elderly People in Super-aging Society: A Survey in Japan

Ryosuke ANDO¹

¹Chief Research Engineer, TTRI (Toyota Transportation Research Institute), Japan
Email: ando@ttri.or.jp

Keiichi HIGUCHI²

²Lecturer, Daido University, Japan
Email: higuchi@daido-it.ac.jp

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.

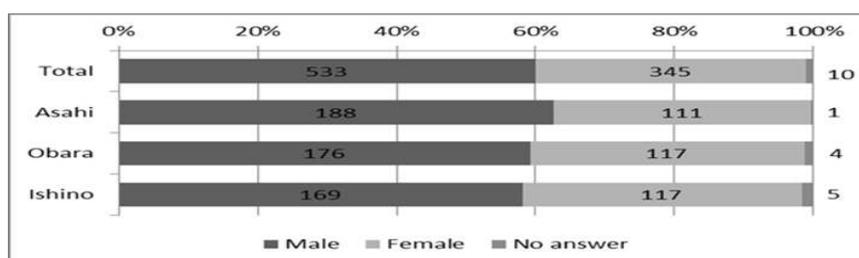


Figure 1. Gender of elderly people

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.

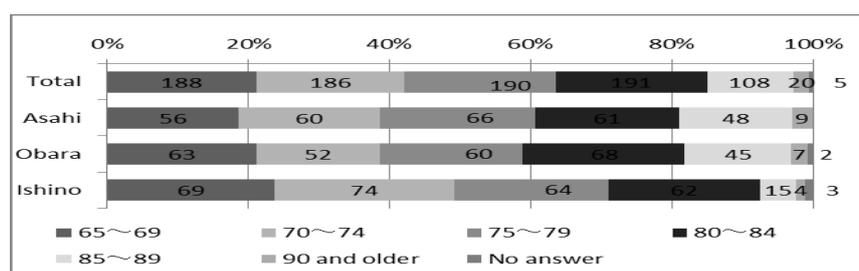


Figure 2. Age distribution

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.

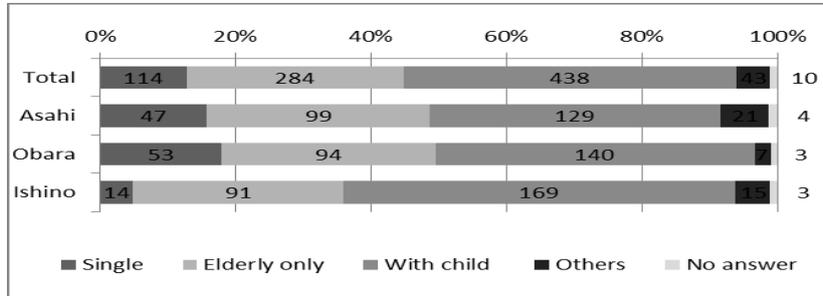


Figure 3. Family member

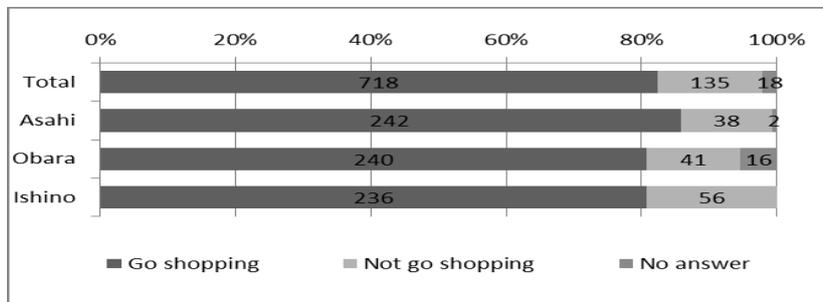


Figure 4. Mobility for shopping

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)

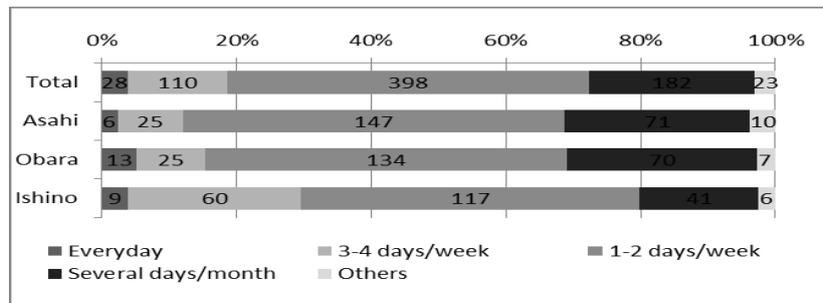


Figure 5. Frequency of shopping

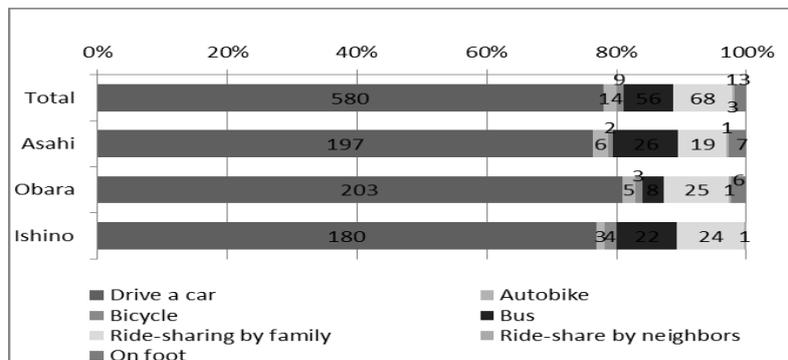




Figure 6. Travel modes when shopping

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.

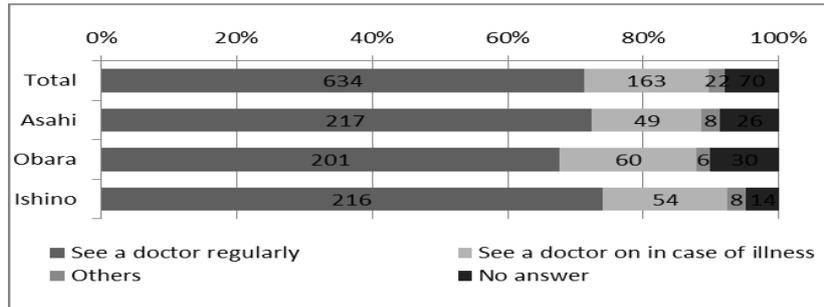


Figure 7. Mobility to see a doctor

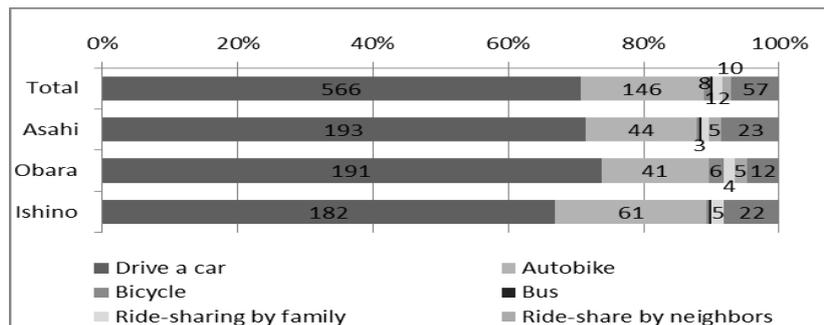


Figure 8. Travel modes when seeing a doctor

2. Driving Cars Themselves

Regarding the driver number in the three districts in Figure 9, there is no statistically significant difference.

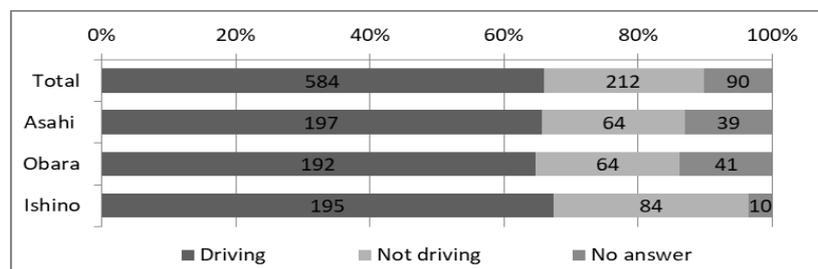


Figure 9. Number of drivers in the target districts (χ^2 Test: $p=0.263$)

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.

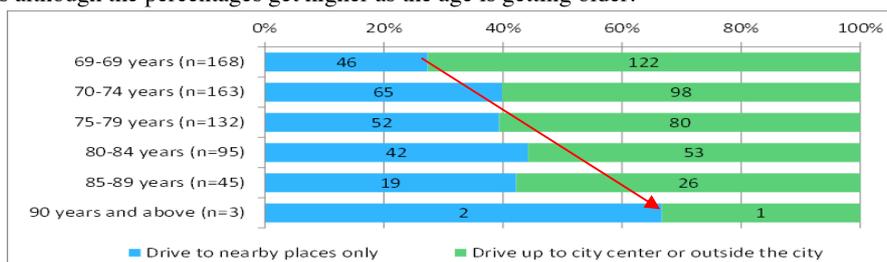


Figure 10. Driving area of each age group (χ^2 Test: $p=0.0459^*$)

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

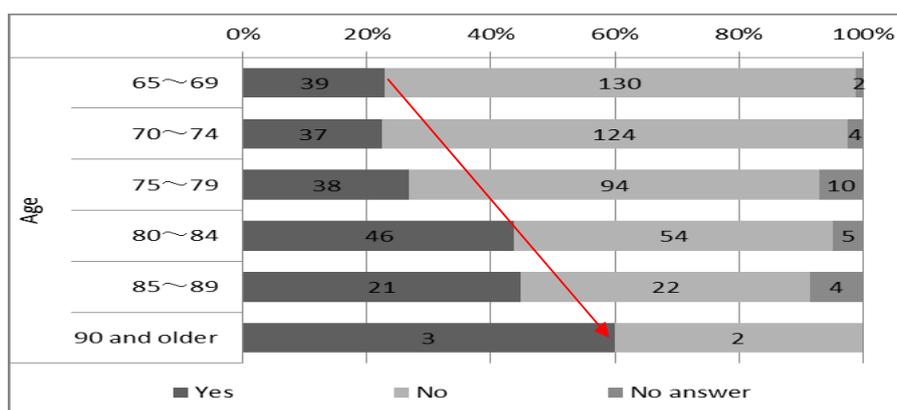


Figure 11. Having thought to give up driving?

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.

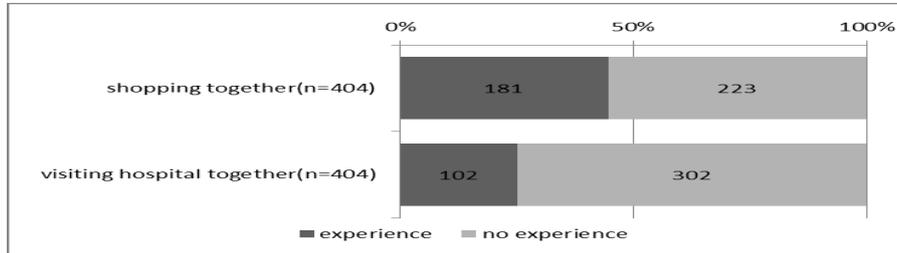


Figure 12. Ride-sharing experience for shopping and seeing doctors

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.

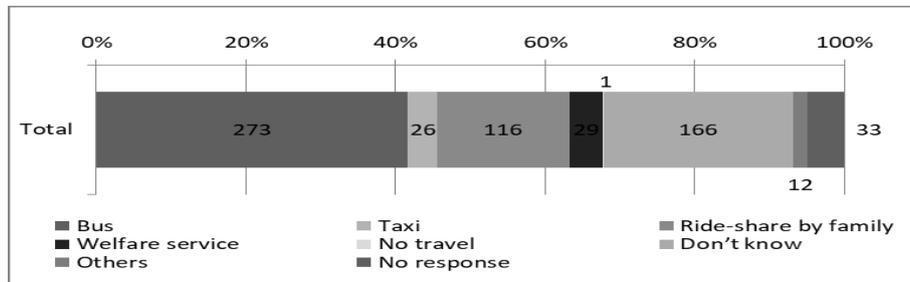


Figure 13. Expected transportation mode if giving up driving

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.

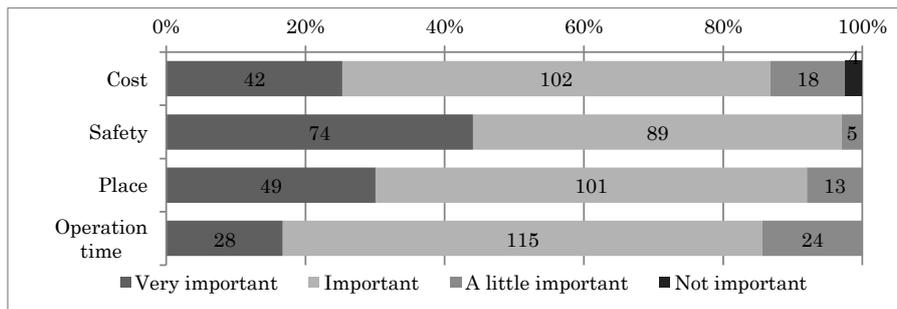


Figure 14. Evaluation on public transportation of the experienced people
 (χ^2 Test: $p=0.000^{**}$)

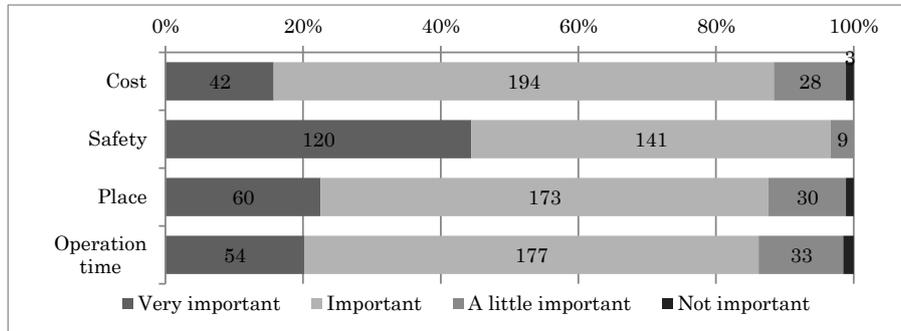


Figure 15. Evaluation on public transportation of the non-experienced people
 (χ^2 Test: $p=0.000^{**}$)

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.

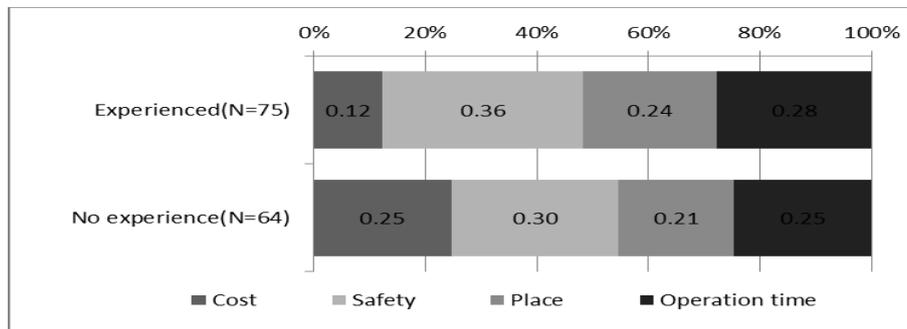


Figure 16. Weights of four evaluation points

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.

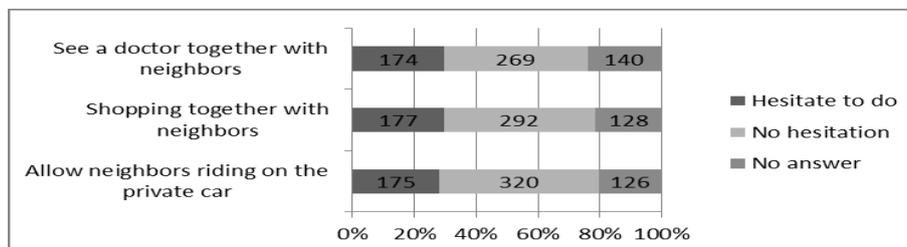


Figure 17. Hesitation for going out with neighbors

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.

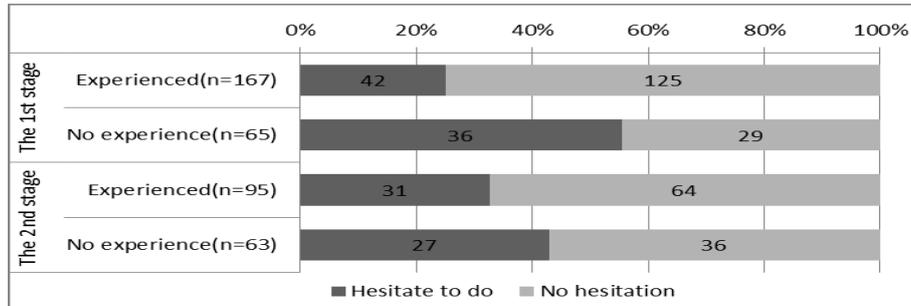


Figure 18. Hesitation for ride-share
 (χ^2 Test: $p < 0.001^{**}$)

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.

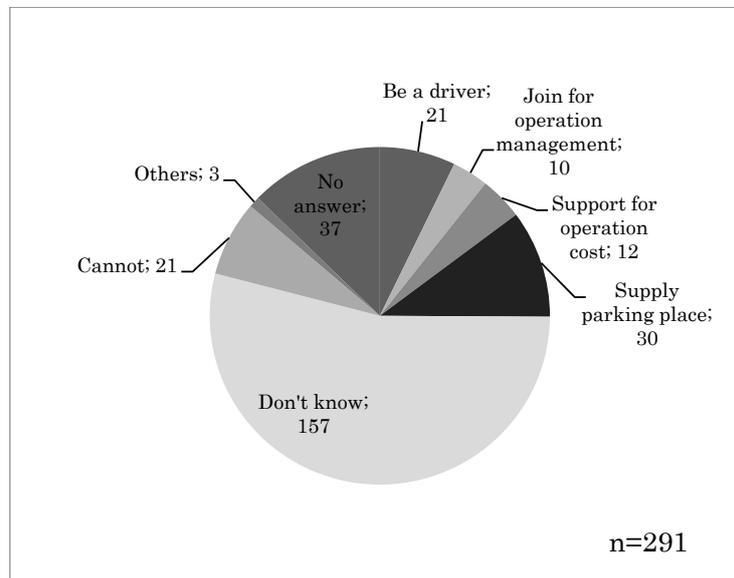


Figure 19. Considering on ride-sharing service by elderly in the Ishino district

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

This study was partly supported by JSPS KAKENHI Grants Number JP17K06612.

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

Jitka LAITOVÁ,

Palacký University Olomouc, Faculty of Education, Department of Mathematics

Email: jitka.laitochova@upol.cz

Radka DOFKOVÁ

Palacký University Olomouc, Faculty of Education, Department of Mathematics

Email: radka.dofkova@upol.cz

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 Salvetová 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 & Salvetová, 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:

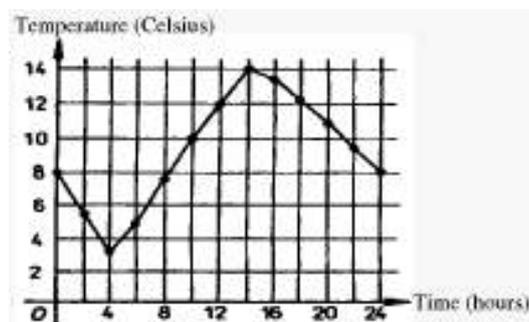
1. Respondents' knowledge of the term of functional thinking and ability to define the term of functional thinking.
2. Effectiveness of including reading graph tasks in mathematics classes.
3. Effect of reading graph tasks on the development of pupils' mathematical thinking.
4. Complexity of including 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:

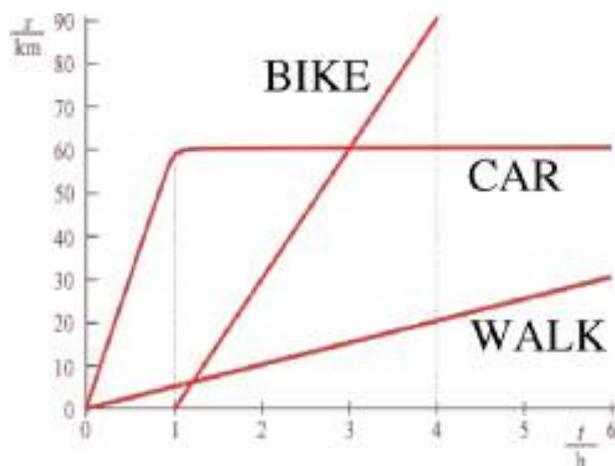
They see the contribution of the task to the development of functional thinking in the fact that the example develops an idea of the course of a dependent variable in a practical situation, "the temperature rises during the day and falls in the evening", furthermore, the example helps with orientation 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.

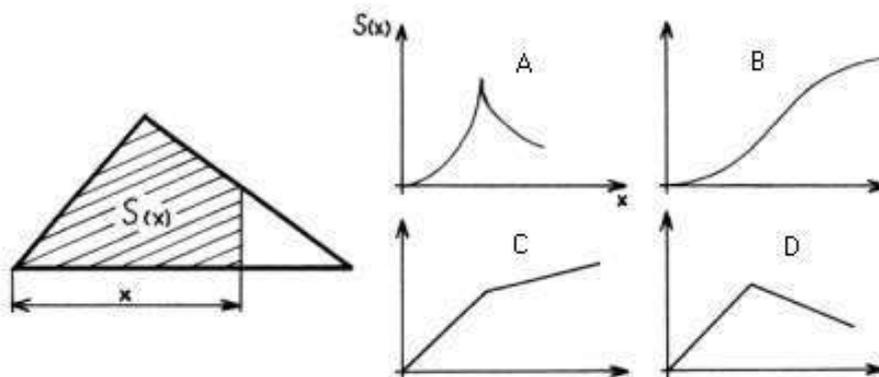
Respondents of teachers achieved a success rate of 55.56%. It was only 5 out of 9 teachers that correctly solved the task. Here we must point out that inaccurate answers are incorrect answers.

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

This paper was supported by the grant IGA_PdF_2019_007 Teaching Situations in Mathematical Education and IGA_PdF_2019_001 Readiness of mathematics teachers to develop digital literacy of pupils.

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., Kopáčková, 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.



The Problem of Forecasting in a Communicative Society

Leyla NAZIRZADA¹

¹*PhD in Philosophy Assoc. Prof. Azerbaijan State University of Economics, Faculty of Technology and Design,
Humanitarian Sciences Department
Email: leyla.nazir976@gmail.com*

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.



The Relationship of Cognitive Functions and Ability of Cooperation and Social Maturity

Michaela PUGNEROVA¹

¹Res. Asst., Department of Psychology and Abnormal Psychology, Faculty of Education, Palacký University Olomouc, E-mail: michaela.pugnerova@upol.cz (Czech Republic)

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 (Říčan, 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_zralost 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/Inspekcnicinnost-QL/Inspekcnicinnost>.
- 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.
- dítěte. 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). Odras niektorých charakteristik 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., Souralová, 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.



Comparison of Organizational Commitment Levels of Teachers Working in Formal and Informal Religious Education Institutions

Ahmet KOÇ¹, Mert BASTAS², Sümeyye KOÇ³

¹MA, Near East University, Faculty of Education, Educational Administration and Supervision Department
E-mail: ahmet.koc@neu.edu.tr

² Assist. Professor Dr, Near East University, Faculty of Education, Educational Administration and Supervision Department
E-mail: mert.bastas@neu.edu.tr

³MA, Near East University, Faculty of Education, Educational Administration and Supervision Department
E-mail: sumeyye.koc@neu.edu.tr

Correspondence (ahmet.koc@neu.edu.tr)

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 (Aydn, 2010). Formal and Informal education institutions are shown in Figure 1:

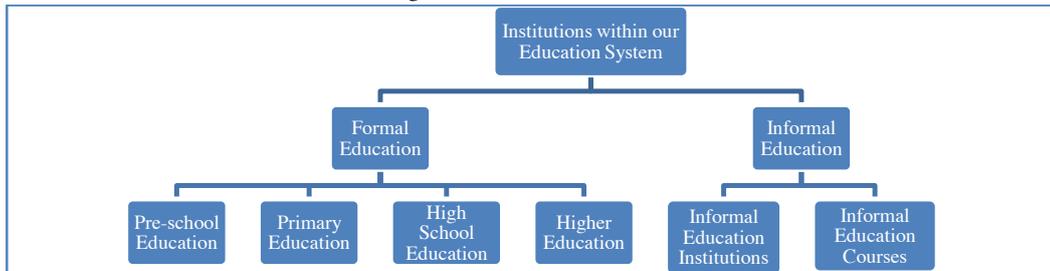


Figure 1: Institutions in Education System



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:

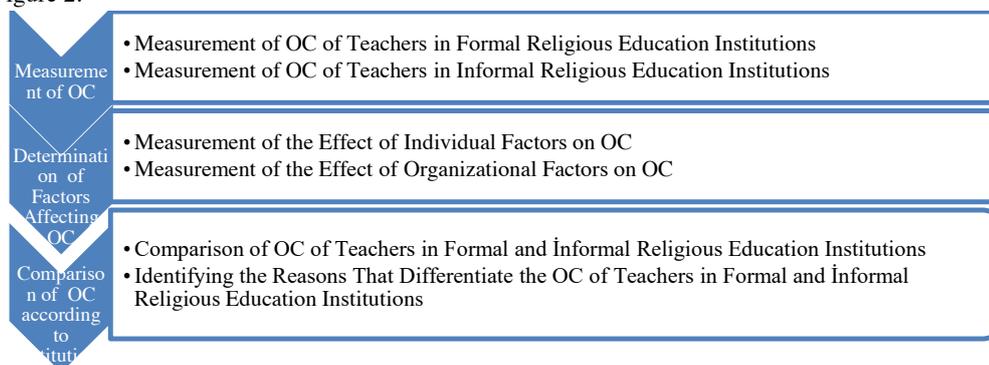


Figure 2: Research Model

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 (Büyükoztürk, 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

SSPS 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:

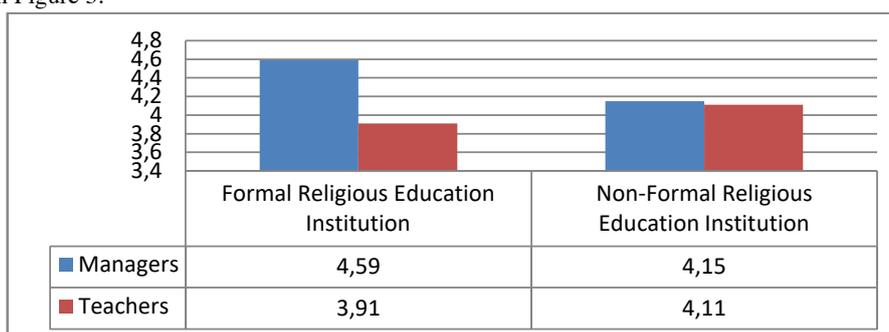


Figure 3: Commitment Levels of Teachers According to Duty Types

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:

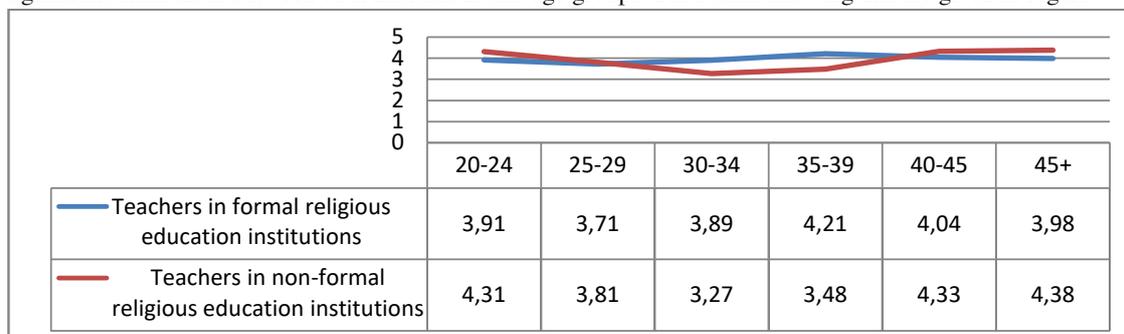


Figure 4: Comparison of Teachers' Organizational Commitment Levels According to Age Variable

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 Algularının 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., & Topolnysky, 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.



Ethical Aspects of the Teacher-Student Relationship

Alena PETROVÁ

*Associate Professor, University of Ostrava, Faculty of Education, Department of Pedagogical and School Psychology
Email: alena.petrova@osu.cz*

Irena PLEVOVÁ

*Associate Professor, University of Ostrava, Faculty of Education, Department of Pedagogical and School Psychology
Email: irena.plevova@osu.cz*

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 analogical 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

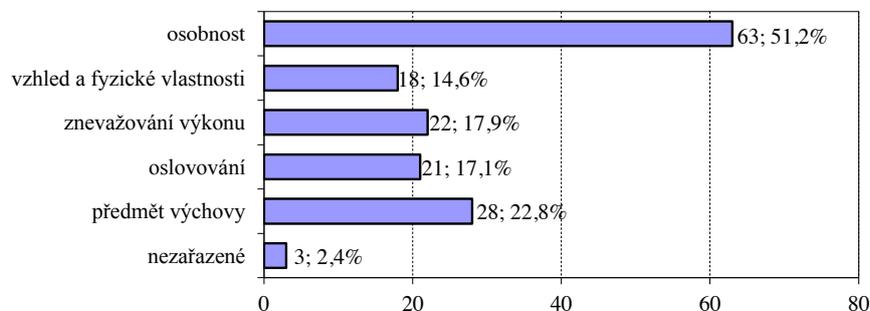
The analysis of the free statements of the participants showed that all reminiscences have one aspect in common. The pathogenic reality expressing devaluation of the student's self-esteem by the teacher was described in all cases.

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)



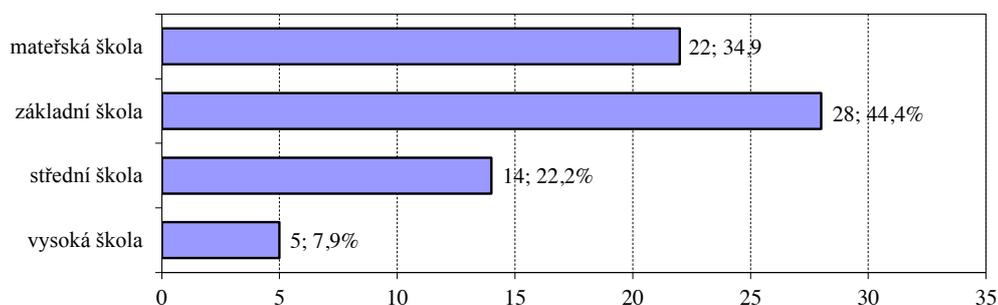
5.2 Analysis of free statements within the determined categories

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.”

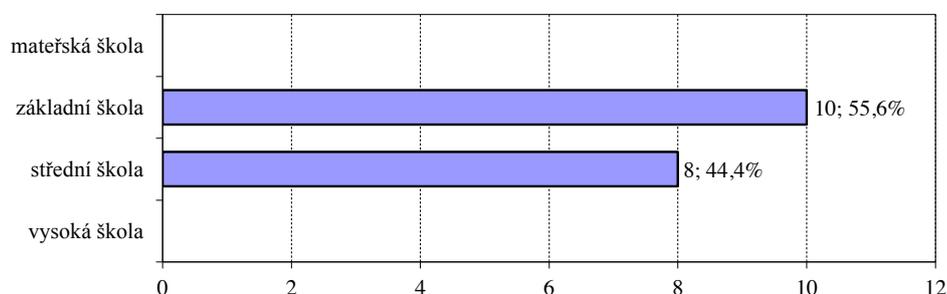
The period of **high school** included reminiscences of 14 participants, e.g. one woman (24 years old) stated the following: “At high school, our physics teacher picked on me. Every lesson he would mock me, saying things like, oh, you’re the last one again, wrong again, nothing surprising etc., I still 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

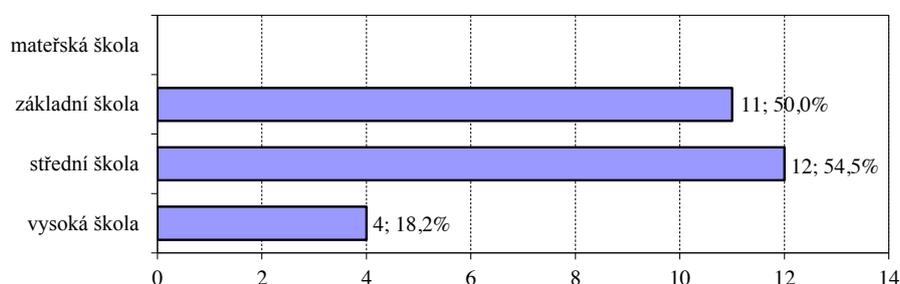


years old) remembered an unpleasant statement of her history teacher at high school: “*Such a big head and so little inside*”. A high school teacher told one female student: “*Well, once again, you have to lift your heavy butt and walk to the blackboard*” (woman, 29 years old). All statements are linked 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.*

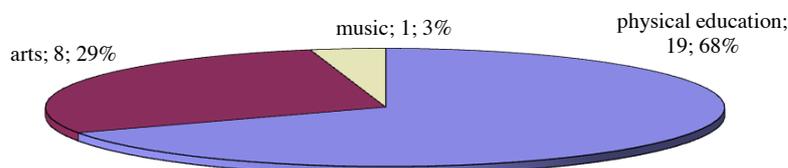


About a year later, I accidentally told my mom about it and she went to the school and asked the teacher not to use that nickname. He was allegedly very surprised because he thought I was okay with it” (man, 22 years old). Another participant (24 years old) described a situation at high school: “The 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). *Iatropatogenie a sororigenie, aneb, Jak lze poškozovat člověka*. 2. vyd. Praha: Vysoká škola J. A. Komenského, 59 s. ISBN 80-86723-00-3.
- Mareš, J., Krívohlavý, 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) *Šlobodaučič'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: Gaudemus, 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.

*5 th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



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

Hussein-Elhakim AL ISSA¹

¹*Assistant Professor, A'Sharqiyah University, College of Business Administration*
hussein.alissa@asu.edu.om; alissaht@gmail.com

Abdulah AL SHUKAILI²

²*Assistant Professor, University of Nizwa, College of Economics, Management and Information Systems*
a.alshukaili@unizwa.edu.om

Fadi ABDEL FATTAH³

³*Assistant Professor, A'Sharqiyah University, College of Business Administration*
fadi.fattah@asu.edu.om

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, & Caverio, 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 & Bolivar, 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, & Cavero, 2015). With that respect, the role of HEIs in stimulating and promoting innovation and smart city initiatives is undeniable (Meijer & Bolivar, 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)

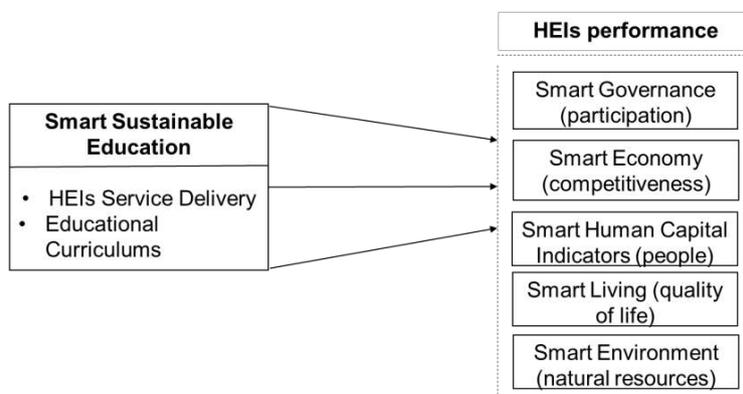


Figure 1. Research Framework

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

- Bätāgan, 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

Selin GÜRLER¹

¹*Kocaeli University, Kocaeli-Turkey*
Email: selin.grlr@gmail.com

Soner POLAT²

²*Prof. Dr., Kocaeli University, Kocaeli-Turkey*
Email: spolat@kocaeli.edu.tr

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)
	Salary (Tchr 2, Tchr 6)	
Disappointment Related to Working Conditions	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)



	Conducting internships as consultancy activities (Tchr 1, Tchr 13)
Suggestions about	Training curriculum in accordance with practical situations (Tchr 2, Tchr 7)
University Education	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 doyumunu 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

Velga VEVERE¹

¹Prof., EKA University of Applied Sciences, 1/5 Lomonosova st., Riga LV-1019, Latvia
Email: velga.vevere@gmail.com

Inga SHINA²

²Prof., EKA University of Applied Sciences, 1/5 Lomonosova st., Riga LV-1019, Latvia
Email: inga.shina@gmail.com

Ainars BRENCIS³

³Assist. Prof., Turība University, 68 Graudu st., Riga LV-1055, Latvia
Email: ainars.brencis@turiba.lv

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; Seelosa & 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.
- Dobele, L. (2013). Sociālās uzņēmējdarbības attīstības iespējas Latvijā. Online [Accessed 25 June, 2019] Retrieved from: http://lufb.llu.lv/dissertation-summary/entrepreneurship/LasmaDobele_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://lluifb.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

Michaela PUGNEROVÁ¹

¹ Palacký University Olomouc, Faculty of Education, Department of Psychology and Abnormal Psychology
Email: michaela.pugnerova@upol.cz

Lucie KŘEMÉNKOVÁ²

² Palacký University Olomouc, Faculty of Education, Department of Psychology and Abnormal Psychology
Email: lucie.kremenkova@gmail.com

Irena PLEVOVÁ³

³ Palacký University Olomouc, Faculty of Education, Department of Psychology and Abnormal Psychology
Email: irena.plevova@upol.cz

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.

Acknowledgement

The study was supported by the project „Psychological and personality determinants of academic achievement” GF_PdF_2019_004.

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

Irena PLEVOVÁ¹

¹ Palacký University Olomouc, Faculty of Education, Department of Psychology and Abnormal Psychology
Email: irena.plevova@upol.cz

Lucie KŘEMÉNKOVÁ²

² Palacký University Olomouc, Faculty of Education, Department of Psychology and Abnormal Psychology
Email: lucie.kremenkova@gmail.com

Michaela PUGNEROVÁ³

³ Palacký University Olomouc, Faculty of Education, Department of Psychology and Abnormal Psychology
Email: michaela.pugnerova@upol.cz

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.

Acknowledgement

The study was supported by the project „*Psychological and personality determinants of academic achievement*” GF_PdF_2019_004.

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

Lucie KŘEMÉNKOVÁ¹,

¹ Palacký University Olomouc, Faculty of Education, Department of Psychology and Abnormal Psychology
Email: lucie.kremenkova@gmail.com

Irena PLEVOVÁ²

² Palacký University Olomouc, Faculty of Education, Department of Psychology and Abnormal Psychology
Email: irena.plevova@upol.cz

Michaela PUGNEROVÁ³

³ Palacký University Olomouc, Faculty of Education, Department of Psychology and Abnormal Psychology
Email: michaela.pugnerova@upol.cz

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 (Hoskovicová, 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.

	R ²	Adj. R ²	change R ²	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.

Acknowledgement

The study was supported by the project „*Psychological and personality determinants of academic achievement*” GF_PdF_2019_004.

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.
- Hoskovicová, 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.
- Komarraju, 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.

*5 th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



- 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

Hussein-Elhakim AL ISSA

A'Sharqiyah University, Oman
Email: hussein.alissa@asu.edu.om;
alissaht@gmail.com

Abdulah AL SHUKAILI

University of Nizwa, Oman

Fadi ABDEL FATTAH

A'Sharqiyah University, Oman

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 (Fadaenejad 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, & Cavero, 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)

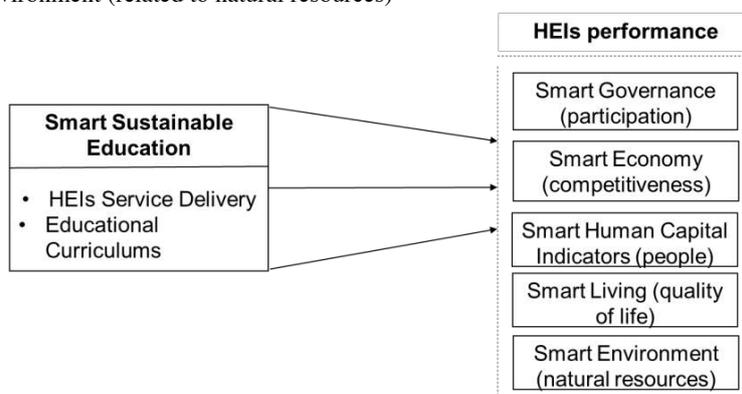


Figure 1. Research Framework

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.



The Role of Translation Studies and Translation Theory in the Far East

Mehmet Cem ODACIOĞLU¹

¹ *Bartın University Dept. of Translation Studies*

Email: cemodacioglu@bartin.edu.tr

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; Odacıoğlu, 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 Ásdis 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).

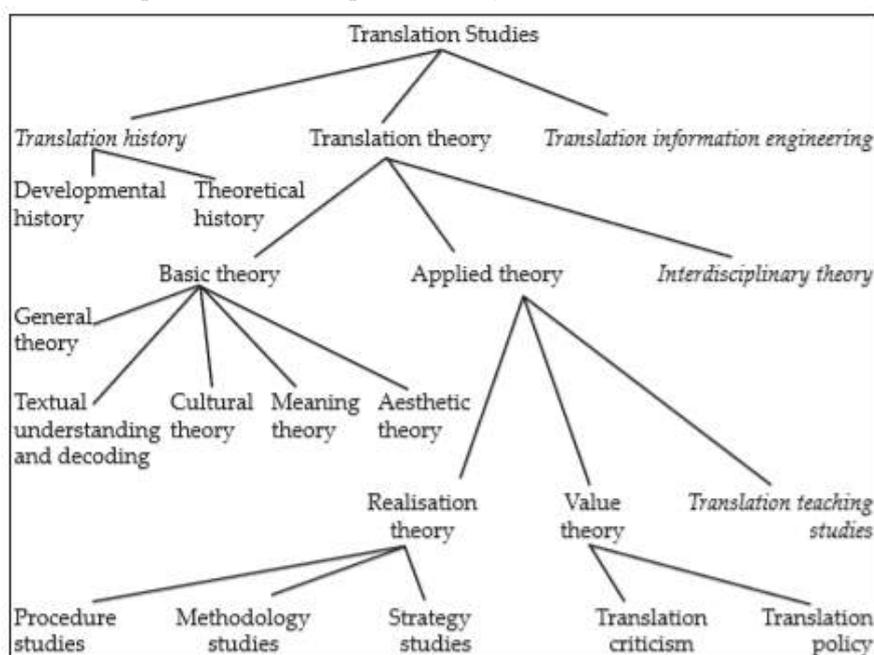
¹⁶ Pym's (2014) book entitled *Exploring Translation Theories* discusses in detail the Western translation theories and approaches.



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 to say map

possible that this was

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

Fadime ÇOBAN¹

¹*Bartın University, Dept. of Translation Studies*

Email: fcoban@bartin.edu.tr

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, antagony, 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 Heart 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", *Monografias 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

Adalat MURADOV¹

¹ Prof. Dr. Rector, Azerbaijan State University of Economics (UNEC)
Email: rector@unec.edu.az

Yadulla HASANLI²

² Dr. prof. director, Scientific Research Institute of Economic Studies under Azerbaijan State University of Economics (UNEC) and Institute Control Systems of ANAS
Email: yadulla.hasanli@uec.edu.az, yadulla59@mail.ru

Fargana MUSAYEVA³

³ PHD, Ass.prof. Institute of Economics of ANAS
Email: fargana.musayeva@gmail.com

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 Moks-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.

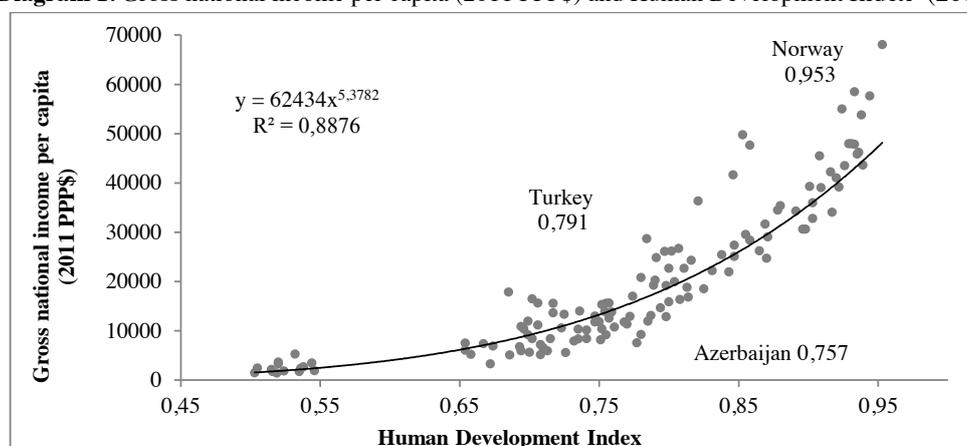
HDI varies between 0-1, approaching the unit indicates a high level. 1 - 0.800 - shows the ranking of countries with the highest, 0.799-0.700 - with high, 0.699 - 0.550 - with medium, and below 0.550 - with weak human development. This coefficient in Azerbaijan was, equal to 0.640 in 2000, increased 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



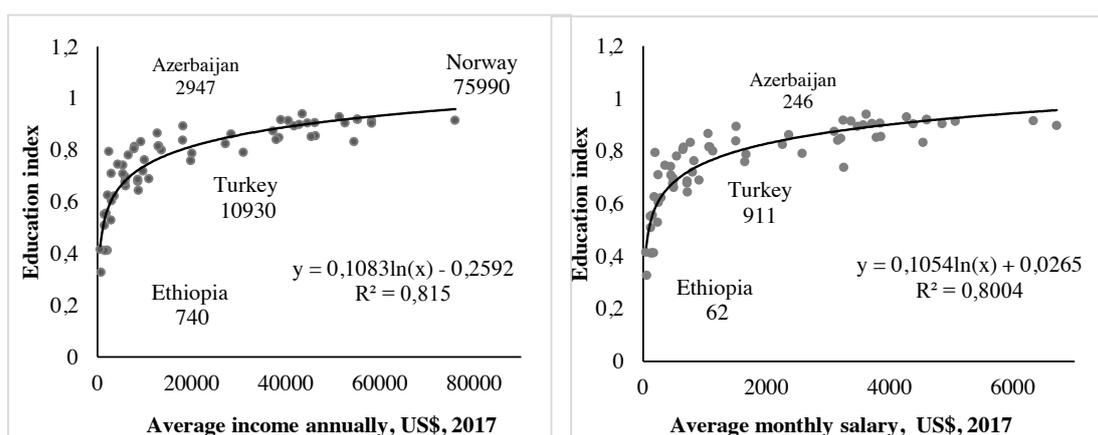
associated with the education of women. This is explained by the fact that educated women have easier access to health care, on the other hand, they have a greater impact on their lives and the lives of their children, and on managing the economy. According to the results of research in the studied years 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.

$$\text{DLOG}(\text{EXPENDIT}) = 0.041686 + 0.806659 * \text{DLOG}(\text{INCOME}) \quad (1)$$

(s.e.) (0.044567) (0.202289)

R-squared = 0.531794 Adjusted R-squared=0.498351 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:

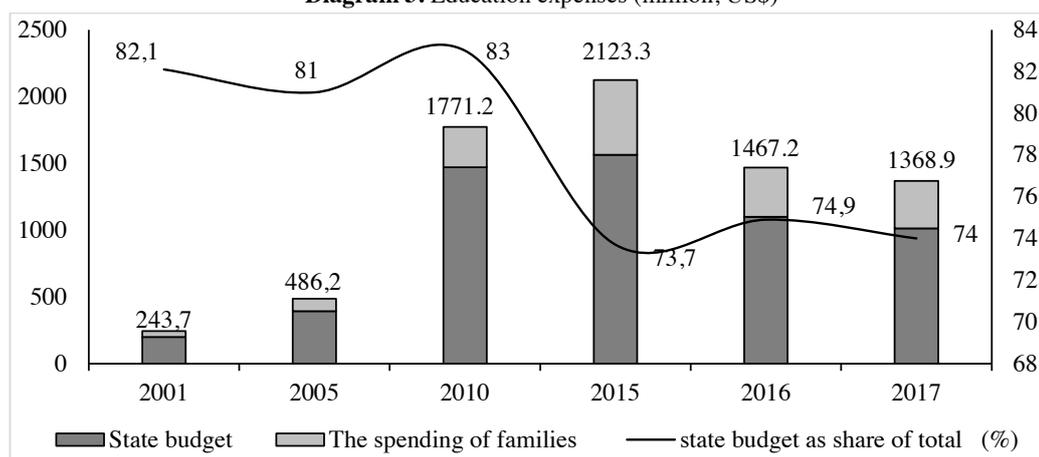
- ✓ Expenditures from the state budget
- ✓ Family Education Expenditures
- ✓ Funds for staff development allocated by institutions.

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.

Diagram 3. Education expenses (million, US\$)



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.



Effect of Teachers' Argumentativeness Perceptions on Their Organizational Dissent Perceptions

Ramazan ERTÜRK¹

¹*Phd Student, Bolu Izzet Baysal University, Institute of Educational Sciences
Email: koroglu522@hotmail.com*

Türkan ARGON²

²*Prof. Dr., Bolu Izzet Baysal University, Faculty of Education, Educational Sciences Department
Email: turkanargon@hotmail.com*

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 Avtgis, 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 & Avtgis, 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 Cençi, 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 Kaygin, 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
	Fixed	1,38	4,86	0,00			
Horizontal dissent	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 (R²=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
	Fixed	1,08	4,80	0,00			
Vertical dissent	argumentative approach	0,42	3,79	0,00	53,16	0,00	0,53
	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
	Fixed	1,01	7,23	0,00			
Displaced dissent	argumentative approach	-0,06	-0,39	0,71	65,30	0,00	0,57
	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
	Fixed	1,41	5,87	0,00			
Organizational	argumentative approach	0,38	10,19	0,00	61,01	0,00	0,46



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; Korucuoğlu, 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 güvenilirlik 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 muhaleet 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 Cenççi, 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

Mario DUMANČIĆ¹

¹ *Assoc. Prof., University of Zagreb, Faculty of Teacher Education, Department of information and communication technology; Email: mario.dumancic@ufzg.hr*

Maja HOMEN PAVLIN²

² *PhD. candidate, University of Zagreb, Faculty of Teacher Education, Department of information and communication technology; Email: maja.homen@ufzg.hr*

Nataša ROGULJA³

³ *Lecturer, PhD., University of Zagreb, Faculty of Teacher Education, Department of information and communication technology; Email: natasa.rogulja@ufzg.hr*

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

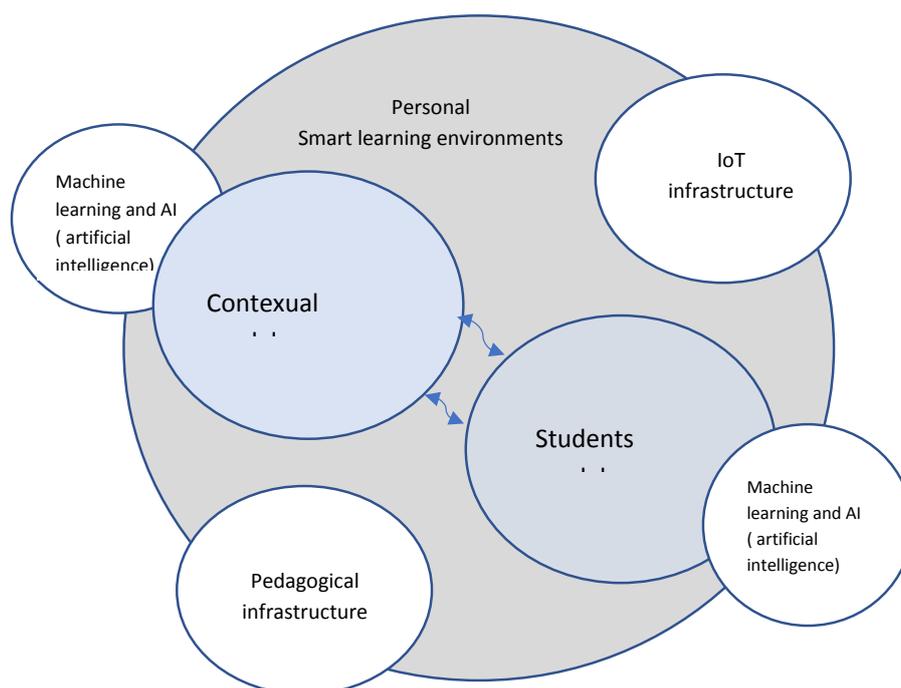
² Project - Ambient, multimodal and context-sensitive lifelong learning, 2006.
(http://www.ambientlearning.net/ambient/download/Files/AMBIENT_LEARNING_FINAL_REPORT.pdf)



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>



The Effect of Terror on Education in Turkey

Kerem KARABULUT¹

¹*Prof., Atatürk University and Ağrı İbrahim Çeçen University, Faculty of Economics and Administrative Sciences,
Emails: kerem@atauni.edu.tr / kkarabulut@agri.edu.tr*

Süleyman UĞURLU²

²*Res. Asst., Ağrı İbrahim Çeçen University, Faculty of Economics and Administrative Sciences,
Email: sugurlu@agri.edu.tr*

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 ≤ 1	0.270742	20.21930	24.27596	0.1493
r ≤ 2	0.202062	8.537352	12.32090	0.1979
r ≤ 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)		
LGDPP	0.47*	0.001 (0.0000)	0.847	0.838
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: Eviews 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.



Evaluation of Quality of Educational Activity of the Higher Education of Ukraine and Azerbaijan on the Competence Approach and BSC-systems

Iryna SHTULER¹

*¹Doctor of Economic Sciences, Professor, Vice-Rector for Scientific Work, National Academy of Management
Email: shkirka2002@ukr.net*

Olena ANTONOVA²

²Candidate of Economic Sciences, Associate Professor, Department of Finance, Accounting and Fundamental Economics, National Academy of Management; Email: antonova75@ukr.net

Elnara SAMEDOVA³

³PhD in Economic Sciences, Associate Professor, Department of Economics, Azerbaijan State University of Economics (UNEC); Email: samedova.elnara13@gmail.com

Pavlo NYKYTIUK⁴

⁴Candidate of Agricultural Sciences, Head of Finance and Budget Relations Department Office of Strategy and Economic Development, State Forest Resources Agency of Ukraine; Email: nikiuk_paul@ukr.net

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.

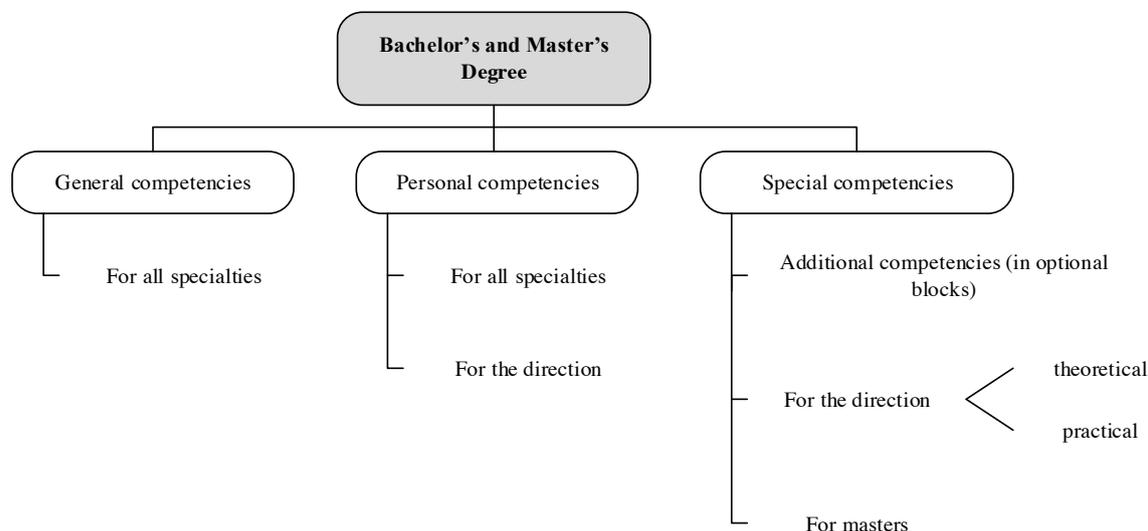


Fig. 1. Template of competency model.

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.

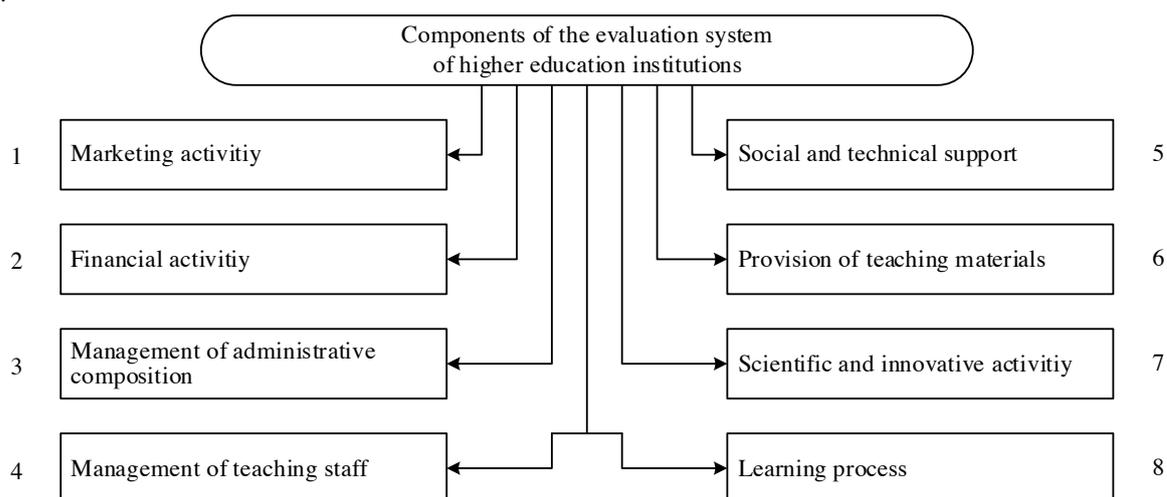


Fig. 2. Components of the evaluation system of the university activity

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).

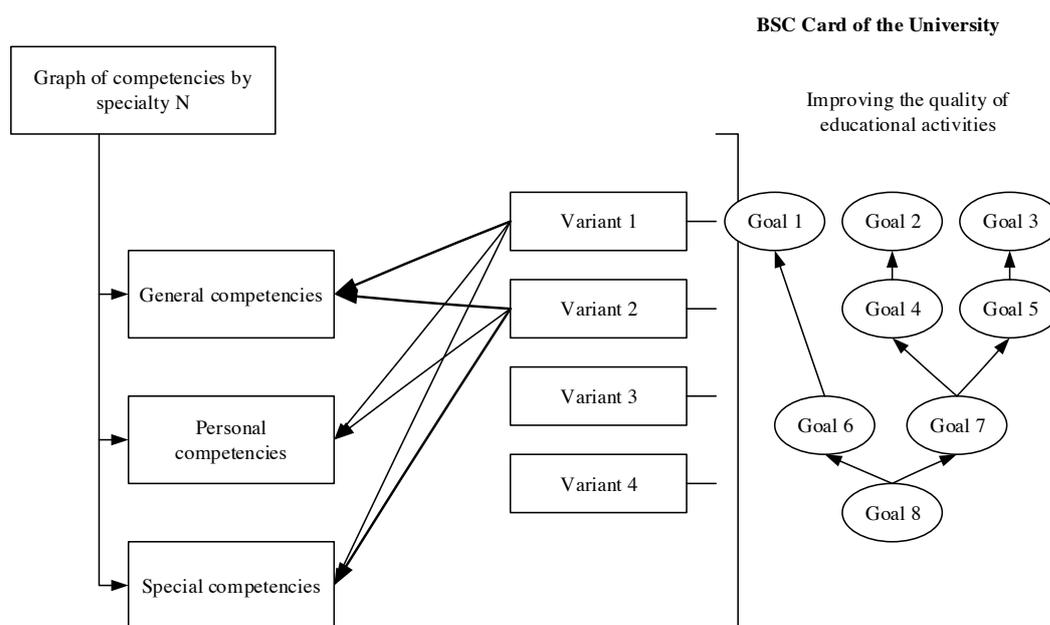




Fig. 3. Interconnection of BSC card and competency model of student.

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.)



**Effects of Globalization on Economic Development:
Evidence from the G-20 Countries (1990-2017)**

Kerem KARABULUT¹

¹*Prof., Atatürk University, Faculty of Economics and Administrative Sciences, Department of Economics
Email: kerem@atauni.edu.tr*

Ömer YALÇINKAYA²

²*Assoc. Prof., Ağrı İbrahim Çeçen University, Faculty of Economics and Administrative Sciences, Department of
Economics Email: oyalcinkaya@agri.edu.tr*

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.³The 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), Leitao (2013), Gurgul and Lach (2014), Sincere and Jenatabadi (2014), Ying (2014), Suci et al. (2015), Zahanogo (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	Real 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, KOFP and KOFs). 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:

$$Y_{it} = \beta_{it} + \alpha_{it}K_{it} + \tau_{it}L_{it} + \theta_{it}TFP_{it} + \gamma_{it}G_{it} + \varepsilon_{it} \quad (2)$$

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).

$$\text{Model: } RGDP_{it} = \alpha_{it} + \beta_1 RGF_{it} + \beta_2 EL_{it} + \beta_3 TFP_{it} + \beta_4 G_{it} + \varepsilon_{it} \quad (3)$$

Since the level of globalization (G) in the study is represented by indicators such as COFG, COFE, KOFP and KOFs, 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, KOPF 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, KOPF and KOFS variables are calculated positively and statistically significant in G-9 group countries, and the coefficients of KOFG, KOFE, KOPF and KOFS variables in G-10 group countries are observed to be positive or negative and/but 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 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.
- Tarı, 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 Variables	G-9		G-10	
	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 Variables	G-9		G-10	
	CIPS Test Statistics Level	L	CIPS Test Statistics Level	L
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 ($Z_{N,T}^{H_{NC}}$)	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]	2
	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]	
	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

Kristine MACKARE¹,
Anita JANSONE²

^{1,2} *Liepaja University, Faculty of Sciences and Engineering*
Email: kristine.mackare@gmail.com

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. (NCCA 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)
- NCCA 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.



Some Aspects of the Czech Republic Security Policy and Proliferation of Nuclear and Chemical Weapons

Pavel OTRÍSAL¹

¹ Associate Professor, University of Defence Brno, NBC Defence Institute
Email: pavel.otrisal@unob.cz

Antonín NOVOTNÝ²

² Res. Asst., University of Defence Brno, Centre for Security and Military Strategic Studies
Email: antonin.novotny@unob.cz

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, Nešříření 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).



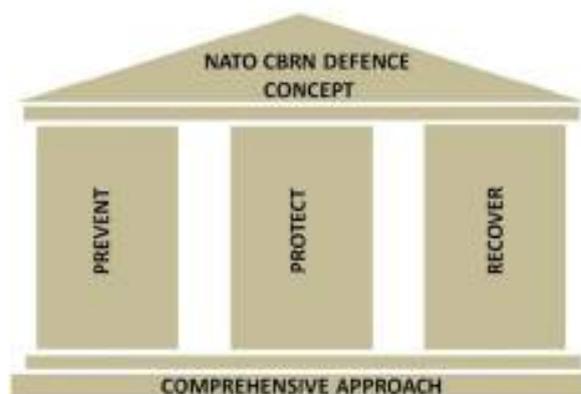
From the military point of view, the issue of non-proliferation of WMD is seen as a political area, and the Alliance is more inclined to the concept of preventing the proliferation of WMD. A new approach in this area was presented in 2018 - Weapons of Mass Destruction Disablement Functional Concept. 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, Otřísal, 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/proliferaation/>
- 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 OTRÍSAL, 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

Dr. Klaudeta MEROLLARI¹,

¹*University of Korça, Faculty of Economic, Department of Finance and Accounting
Bulevardi Rilindasit 11, Korçë, Albania
Email: klaudetamerollari2010@hotmail.com,*

Dr. Klaudia LËPË²

²*University of Korça, Faculty of Economic, Department of Finance and Accounting
Bulevardi Rilindasit 11, Korçë, Albania
Email: klaudialipi@yahoo.com*

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.

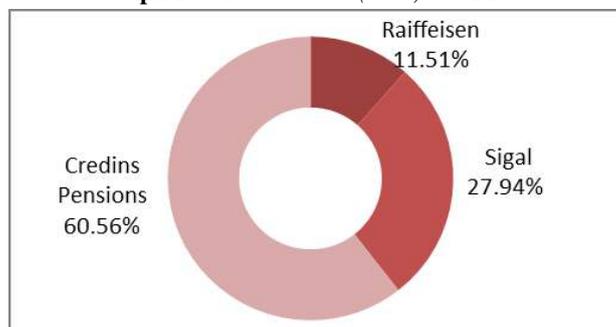
Table 1. Characteristics of PFs' market

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

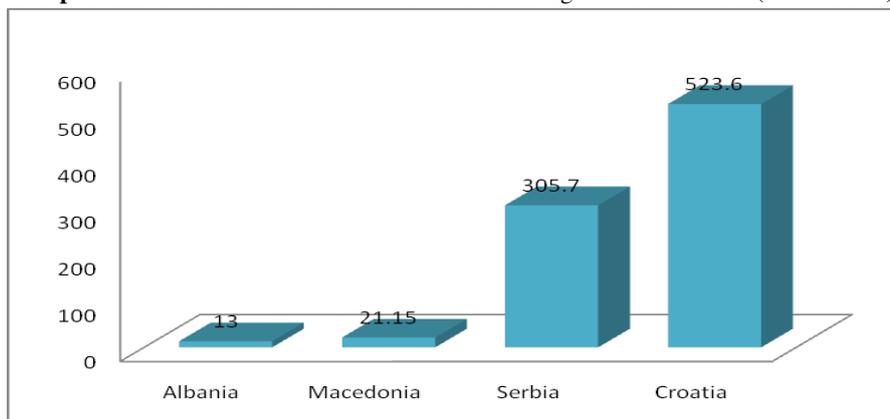
The private pension market, although with a small asset value, is an active participant in the capital market, investing mainly in government securities. But private pensions can have an extraordinary increase.

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)

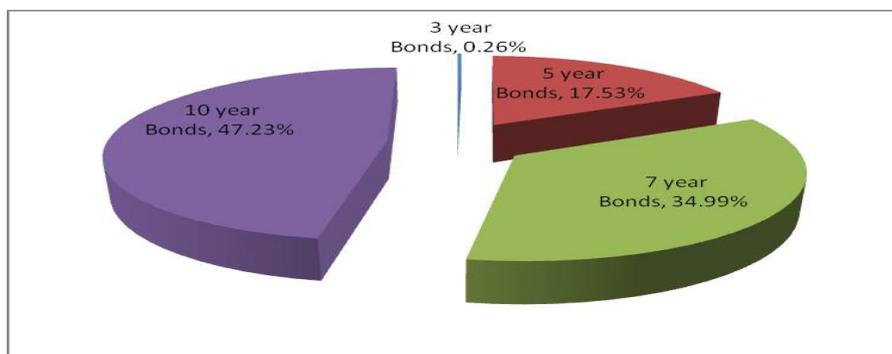


Source: Financial Supervisory Authority

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

*5 th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



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



Education, Employment and Poverty: Interdependence

Nazim MAMMADOV¹

*1 Researcher, Scientific-Research Institute of Economic Studies (UNEC), Azerbaijan,
Email: nazim_mammadov@unec.edu.az*

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 inefficient. 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 (MLSPAR, 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>
- Hasanlı Y.H., Şabanov 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*.
- Mikayılov 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*.
- Mikayılov 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., Hasanlı 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>

*5 th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



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>



The Expectations of International Students of Leadership on International Campuses

Ayşegül TAKKAÇ TULGAR¹

¹Assist. Prof. Dr., Atatürk University, Faculty of Education, English Language Teaching Department
e-mail: atakkac@atauni.edu.tr

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 Henning (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.



The Effect of Coping Strategies on Workplace Bullying in High School Teachers

Simona DOBEŠOVÁ ČAKIRPALOĞLU¹

¹Palacký University in Olomouc, Faculty of Education, Department of Psychology and Psychopathology, Czech Republic;
Email: simona.dobesova@upol.cz,

Tomáš ČECH²

²Palacký University in Olomouc, Faculty of Education, Institute of Education and Social Studies, Czech Republic
Email: tomas.cech@upol.cz,

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% (Záborská & 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; Zábrodská & 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.)

Acknowledgements

The study is dedicated to the following project. Internal grant of the Faculty of Education, Palacky University: IGA_PdF_2019_040 Psychosocial factors of social networks overuse in pre-service teachers.

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. *Československa 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/ethnicbullying: 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 kolegu-Mobbing-skrytá hrozba*. Praha: Grada Publishing a.s.

*5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



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.



Lifelong Learning for Teachers with High and Low Agreeableness

Svetlana LUKASHOVA¹

¹MSc, Suleyman Demirel University, Faculty of Education and Humanities, Department of Pedagogical Mathematics and Natural Science, Kazakhstan ; Email: Svet-lukashova@yandex.ru

Saule TULEPOVA²

²Assist.Prof., Suleyman Demirel University, Faculty of Education and Humanities, Department of Language Teacher Education, Kazakhstan; Email: Saule.tulepova@sdu.edu.kz

Yerzhan CHONGAROV³

³Assist.Prof., Suleyman Demirel University, Faculty of Law and Social Sciences, Department of Social Sciences, Kazakhstan; Email: chongarov@inbox.ru

Gulnara KASSYMOVA⁴

⁴Assoc. Prof. Dr., Suleyman Demirel University, Faculty of Education and Humanities, Department of Language Teacher Education, Kazakhstan ; Email: guln-k@mail.ru

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.

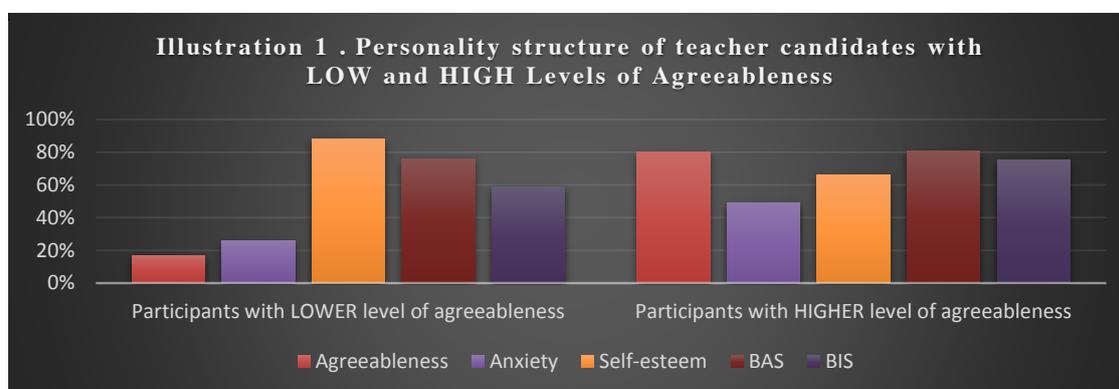
A few researchers have addressed the problem of agreeableness and self-esteem. Still, there is scarce and ambiguous information about their relationship. Some studies argue that highly agreeable people tend to score higher on self-esteem than low agreeable. Others state that self-esteem of agreeable 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=Dammar+Singh+Saud+\(2017\)](https://www.google.kz/search?q=Dammar+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

*5 th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*





Computational Thinking and Teachers: What is the Real Level of Experience in Teaching Algorithms and Programming for IT Teachers?

Milan KLEMENT¹

¹*Assoc. Prof., Palacký University Olomouc, Faculty of Education, Department of Technical Education and Information Technology*
Email: milan.klement@upol.cz

Tomáš DRAGON²

²*Res. Asst., Palacký University Olomouc, Faculty of Education, Department of Technical Education and Information Technology*
Email: tomas.dragon@upol.cz

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 (Stuchlíková 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 (Stuchlíková 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” (Chráska & 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 (Chráska & Kočvarová, 2015). For all these calculations and visualizations, the Statistica software system was used.

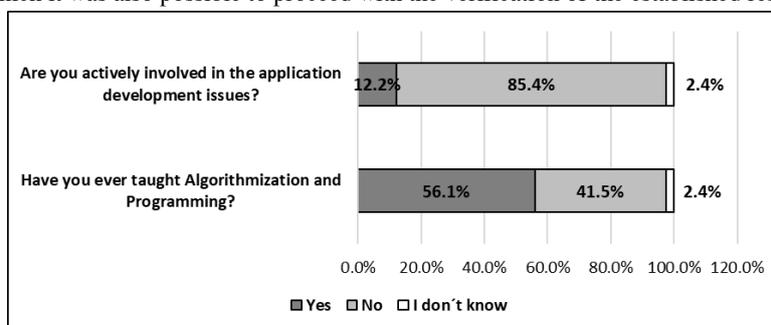
Findings

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.*

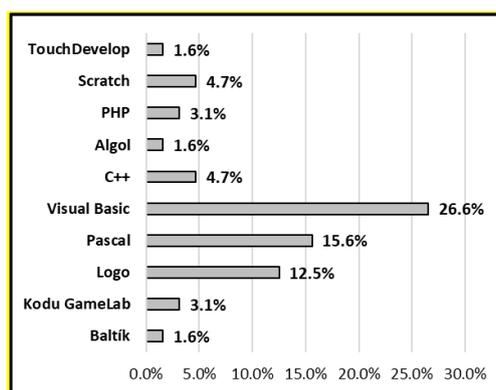


This result is quite interesting, as it breaks down the “classic” myth of general non-popularity of Algorithmization and Programming in women. Therefore, it is clear that the duality of teachers' view of the teaching of Algorithmization and Programming issues must be sought somewhere else.

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



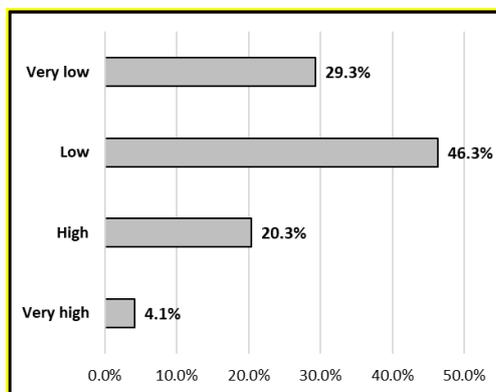
integrates a development environment (IDE) and is manufactured by Microsoft. The second most widely used tool is the Pascal programming language, which was mentioned by a total of 15.6% of teachers. The programming language was originally intended primarily for the teaching of programming, but its various 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>



Linguistic, Social and Cultural Factors Influencing Foreign Language Learning in the Context of Higher Education

Gulnara KASSYMOVA¹

¹Assoc. Prof. Dr., Suleyman Demirel University, Faculty of Education and Humanities,
Department of Language Teacher Education, Kazakhstan
Email: guln-k@mail.ru, gulnara.kassymova@sdu.edu.kz

Saule TULEPOVA²

²Assist. Prof. Ph.D, Suleyman Demirel University, Faculty of Education and Humanities,
Department of Language Teacher Education, Kazakhstan
Email: saule.tulepova@sdu.edu.kz

Kuralay MUKHAMADI³

³Assoc. Prof. Ph.D, Suleyman Demirel University, Faculty of Education and Humanities,
Department of Language Teacher Education, Kazakhstan
Email: kuralay.mukhamadi@sdu.edu.kz

Kumis ZHAIYKBAY⁴

⁴MA., Suleyman Demirel University, Faculty of Education and Humanities,
Department of Language Teacher Education, Kazakhstan
Email: kumis.zhaikbay@sdu.edu.kz

Svetlana LUKASHOVA⁵

⁵MSc, Suleyman Demirel University, Faculty of Education and Humanities,
Department of Pedagogical Mathematics and Natural Science, Kazakhstan
Email: Svet-lukashova@yandex.ru

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

		Proficiency Test Scores	Inadequacy of some English assignments	Interest in American & British culture
Spearman's rho	Proficiency Test Scores	Correlation Coefficient	1,000	,442**
		Sig. (2-tailed)	.	,932
		N	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
		Sig. (2-tailed)	,046	.
		N	100	100
	I would like to learn American & British culture because it will help to avoid misunderstandings (attitude toward culture)	Correlation Coefficient	,010	-,142
		Sig. (2-tailed)	,932	,242
		N	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

		Proficiency Test Scores	First and Second, Language Difference	First and Second, Language Similarities
Spearman's rho	Proficiency Test Scores	Correlation Coefficient	1,000	,168
		Sig. (2-tailed)	.	,166
		N	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	,168	1,000	,126
	Coefficient			
	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	,034	,126	1,000
	Coefficient			
	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*
- Kazazoğlu, 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.ijmltl.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: 1 Sayı: 2 Aralık
- Spolsky, B. (2004). Language policy. Cambridge University Press.



Correlation Between Parents' Attitudes Towards Physical Exercise and Anthropological Dimensions of Preschool Children

Vatroslav Horvat¹

¹Faculty of Teacher Education, University of Zagreb
E-mail: vatroslav.horvat@ufzg.hr

Branimir Luka Ćorak²

²Faculty of Teacher Education, University of Zagreb
E-mail: brane.viveka@gmail.com

Nevenka Maras³

³Faculty of Teacher Education, University of Zagreb
E-mail: nevenka.maras@ufzg.hr

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.



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)	Std. Error	Curvature distribution (Kurtosis)	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	Sig.
		B	Std. Error	Coefficients 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



Relationship between Morphological Features and Lower Limb Explosive Strength in Boys

Marijana HRASKI¹

¹*Asst.prof., University of Zagreb, Faculty of Teacher Education,
Email: marijana.hraski@ufzg.hr*

Željko HRASKI²

²*Asso.prof., University of Zagreb, Faculty of Kinesiology,
Email: zhraski@kif.hr*

Vatroslav HORVAT³

³*Asso.prof., University of Zagreb, Faculty of Teacher Education,
Email: vatroslav.horvat@ufzg.hr*

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 jet. 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.
- Liebermanna, 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 Anthropologicum*, 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.
- Waggens, G.T., Barfield, W.R., & Sessoms, E.D. (2002). Prediction of maximal vertical jump height, revisited. *Int Sports J* 6,107.



The Case Study of the University Student Who Stutters

Renata MLČÁKOVÁ¹

¹*Palacky University Olomouc, Faculty of Education, Institute of Special Education Studies
Email: renata.mlcakova@upol.cz*

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: (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.

Acknowledgements

The paper is dedicated to the following project of Palacký University Olomouc: "Research on Education of People with Impaired Communication Ability and Children with Hearing Impairment – selected issues (IGA_PdF_2019_017)".

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 balbutiologie*. 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

Madona MIKELADZE¹

¹*Associate Professor, Batumi Shota Rustaveli State University, Department of Pedagogical Sciences
Email: madonamikeladze@yahoo.com*

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)

		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, minimizing the differences between groups		Acceptance of the others by respecting differences in behavior and values.		Full respect and empathy with others and 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.

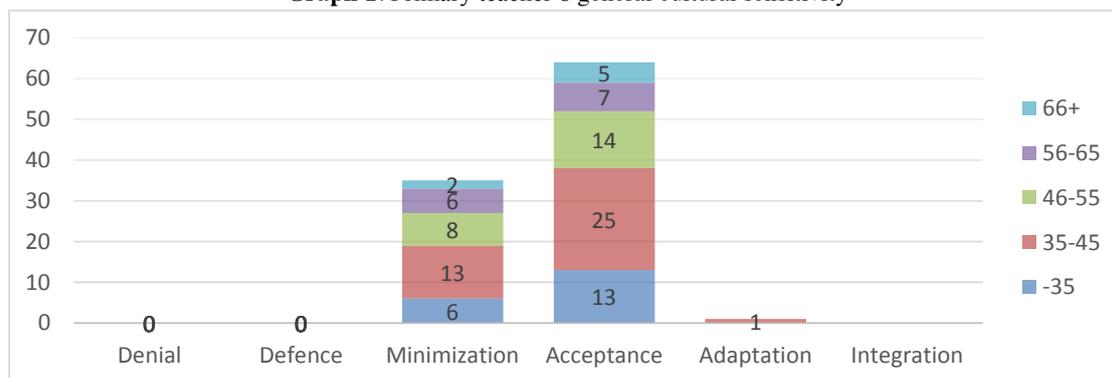
About 60% of the survey participants were from the village and borough settlement and 40% - from town settlement. The sharp contrast among the agricultural, borough and city teachers was less marked by intercultural sensitivity.

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



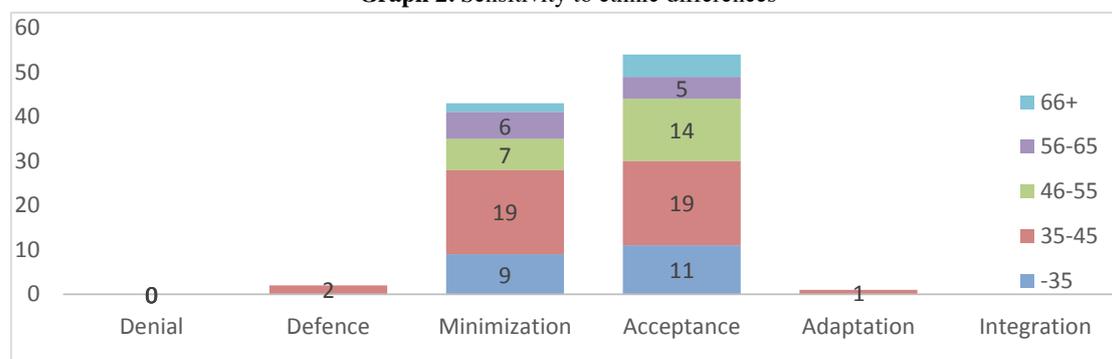
However, it should be mentioned that all the teachers being in the ethnocentric phase are at the highest level of ethnocentric phase or, the level of minimizing of differences. None of them are at the lowest level of intercultural sensitivity – at the denial of differences and self-defense levels.

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

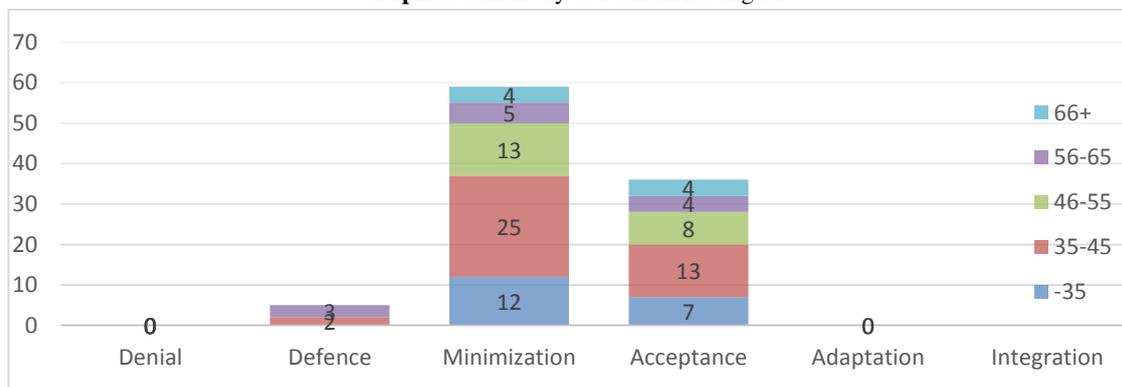


Sensitivity to a different religion. We have received different results in religious sensitivity research. Most of the



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., Natsvlshvili 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-sastsavlogegmebi-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>



Sport Imagery Ability Questionnaire Adaptation

Katrina VOLGEMUTE¹

¹*Doctoral Studies, Latvian Academy of Sport Education, Department of Tourism and Recreation*

Email: katrina.volgemute@lspa.lv

Zermena VAZNE²

²*Latvian Academy of Sport Education, Department of Sport and Training Theory, Education Psychology and Education*

Internship; Email: zermena.vazne@lspa.lv

Daina KRAUKSTA³

³*Latvian Academy of Sport Education, Department of Tourism and Recreation*

Email: daina.krauksta@lspa.lv

Renars LICIS⁴

⁴*Latvian Academy of Sport Education, Department Sport Games*

Email: renarslicis@inbox.lv

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).

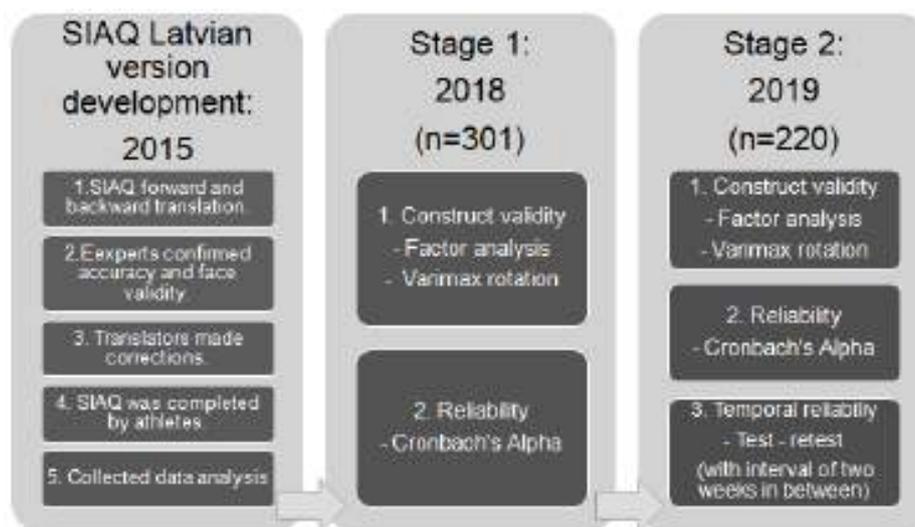


Figure 1. Aadaptation procedure of the SIAQ Latvian version

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	Strategy	Goal	Affect	Mastery
	Images	Images	Images	Images	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 fourth 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 Psicología*, 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**

Ömer YALÇINKAYA¹

¹*Assoc. Prof.Dr., Ağrı İbrahim Çeçen University, Faculty of Economics and Administrative Sciences, Department of Economics Email: oyalcinkaya@agri.edu.tr*

Şekip YAZGAN²

²*Assist. Prof.Dr., Ağrı İbrahim Çeçen University, Faculty of Economics and Administrative Sciences, Department of Economics Email: syazgan@agri.edu.tr*

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	
EI-2	Education Index-2	United Nations Development Programme (UNDP Human Development Data-2019).

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

$$\text{Model-1: } RGDP_{it} = \alpha_{it} + \beta_1 RGFI_{it} + \beta_2 EL_{it} + \beta_3 TFP_{it} + \beta_4 EI - 1_{it} + \varepsilon_{it} \quad (1)$$

$$\text{Model-2: } RGDP_{it} = \alpha_{it} + \beta_1 RGFI_{it} + \beta_2 EL_{it} + \beta_3 TFP_{it} + \beta_4 EI - 2_{it} + \varepsilon_{it} \quad (2)$$

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 Endogeneous 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: Committe 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 Cointegration 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	CD-LM _{adj}	
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

Constant+Trend	PISA-1									PISA-2			PISA-3		
	Test Statistics									CIPS			CIPS		
	Variables	LV	FD	L	LV	FD	L	LV	FD	L	LV	FD	L		



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	
	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_b	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

Models	PISA-1							
	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]
Models	PISA-2							
	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 [0.002]	130.19 ^a [0.000]	-1.72 [0.085]	86.40 [0.195]	2.81 ^a [0.005]	258.11 ^a [0.000]	2
RGDP→EI-2	3.29 ^a [0.001]	79.16 ^a [0.009]	-0.99 [0.319]	97.84 [0.447]	2.39 ^b [0.017]	190.93 ^a [0.001]	2
EI-1→RGDP	8.82 ^a [0.000]	98.55 ^a [0.000]	3.37 ^a [0.007]	121.40 ^a [0.001]	2.71 ^a [0.006]	500.56 ^a [0.000]	2
EI-2→RGDP	2.85^a [0.004]	76.87^a [0.008]	2.57^b [0.010]	125.83^a [0.000]	2.24^b [0.025]	723.42^a [0.000]	2

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 “[]”.



New Pedagogies for Lifelong Learning: An Insight of Urdu Literature in Pakistan

Almas KHANUM¹

¹Assistant Professor, Government College University, Lahore, Faculty of Arts & Humanities, Urdu Department
dr.almaskhanum@gcu.edu.pk¹

Faiza BASHIR²

²Assistant Professor, Government College for Women, Township, Lahore, Department of Library & Information Science
Email: faizavirgo@yahoo.com²

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.	24.50%

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.

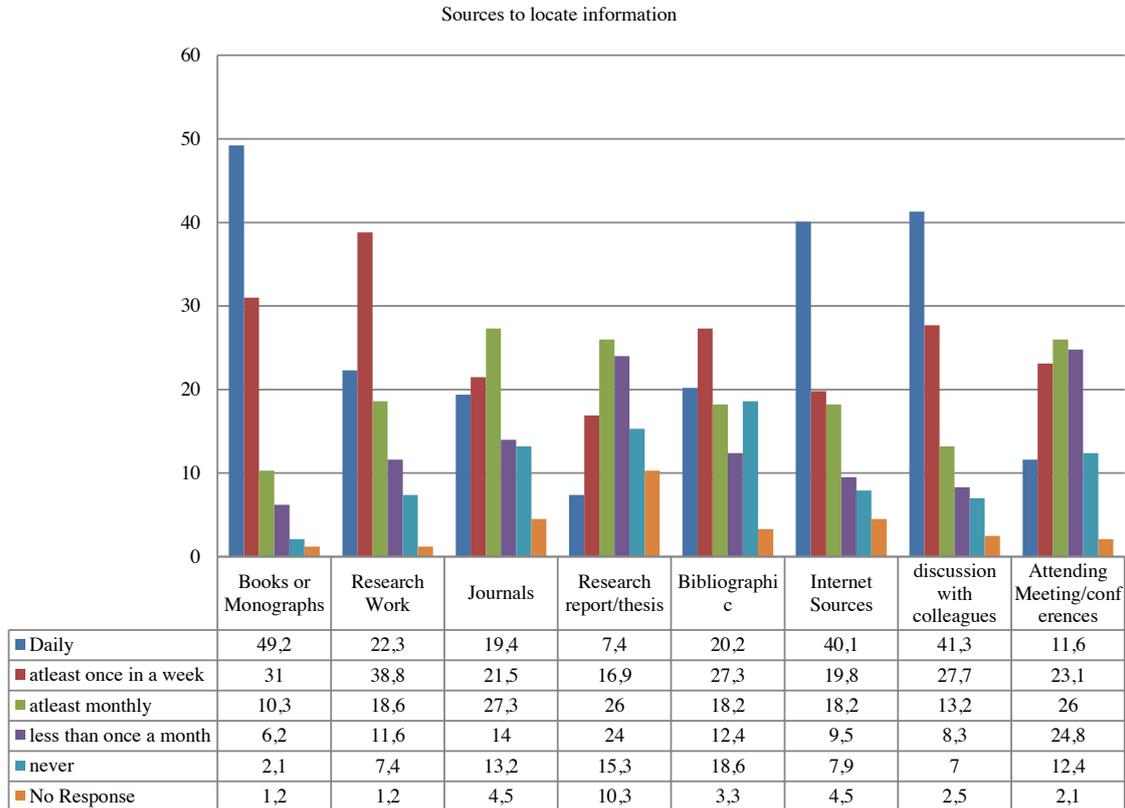
Table 4. Frequency of Sources

	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.



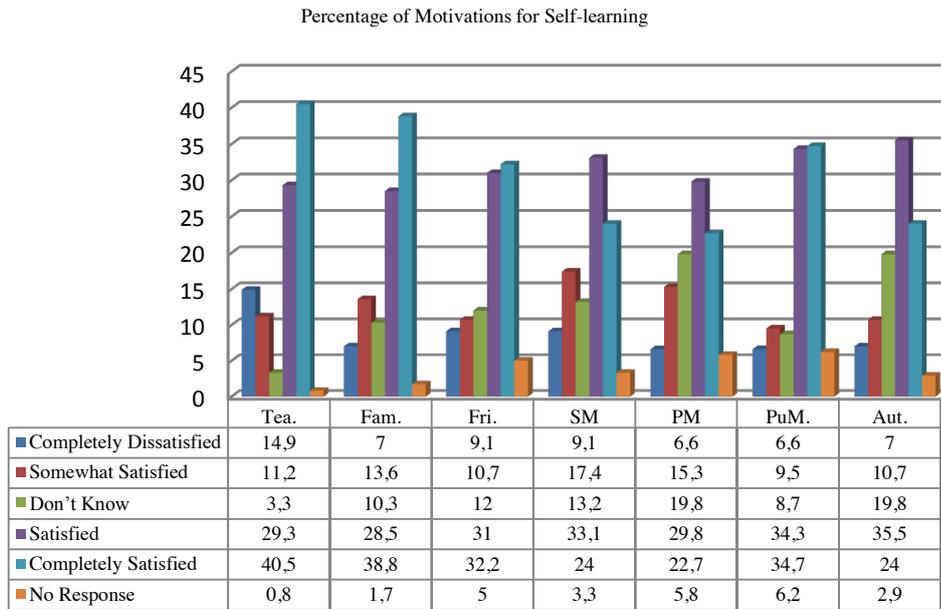
Table 5. Motivations for Self Learning

	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.



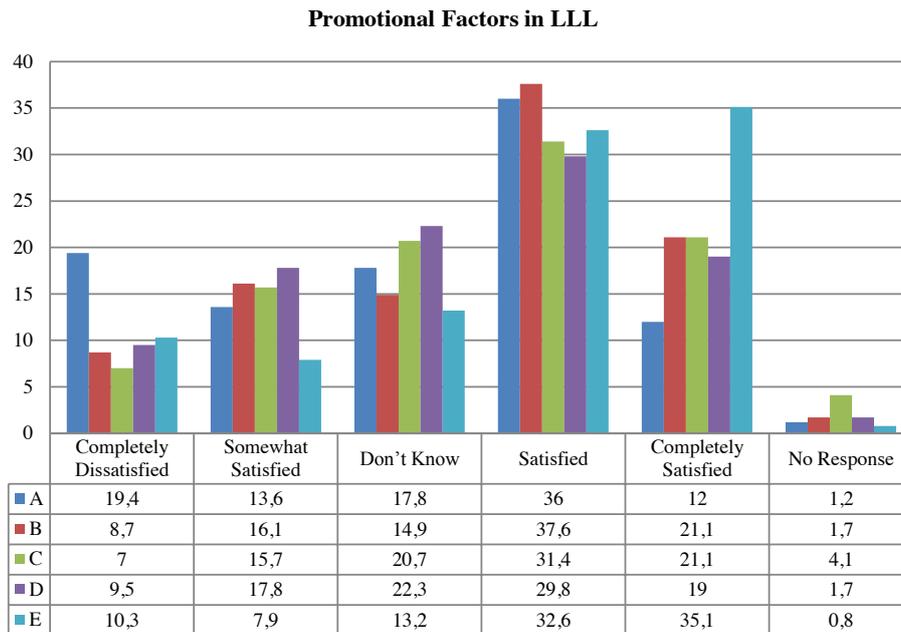
Table 6. Promotional Factors in LLL

	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



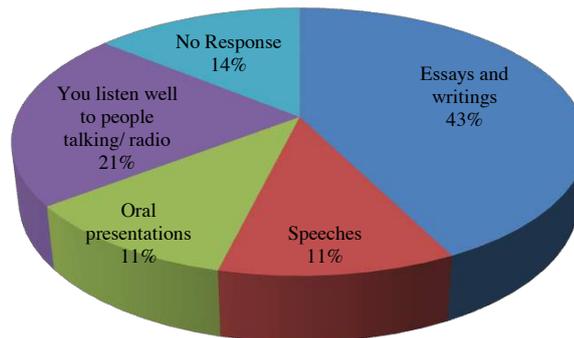
5. Mediums to learn language and linguistics

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

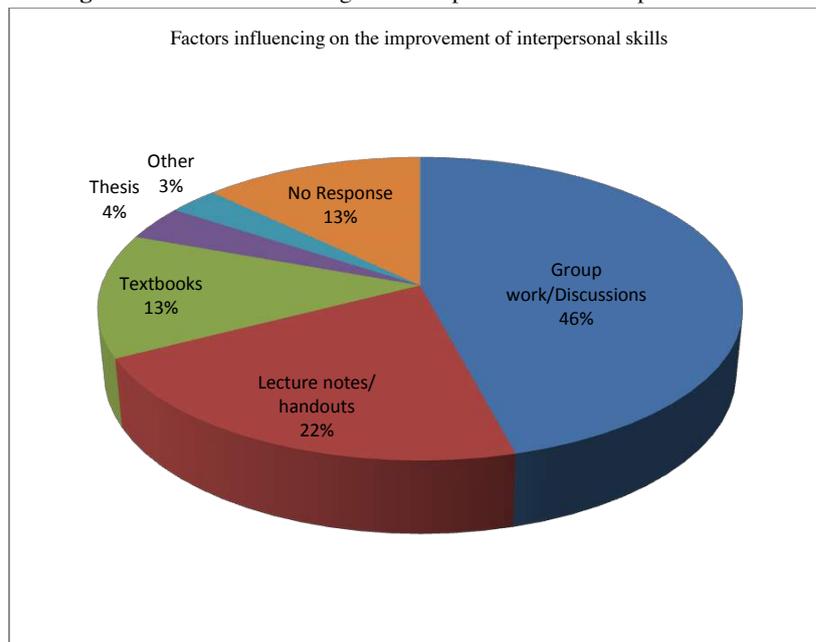
Percentage for medium to learn language and linguistics



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

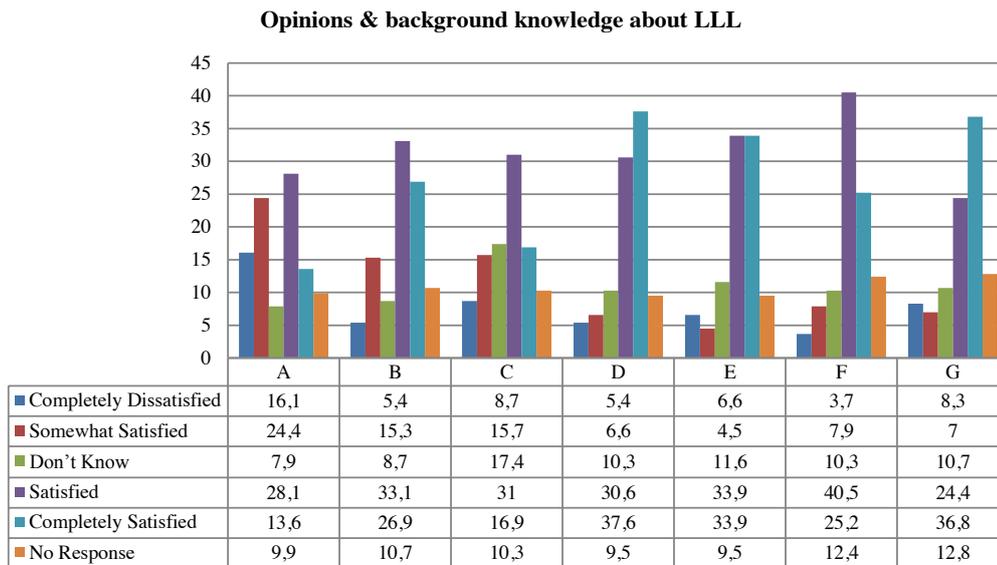
E= I know my personal learning style

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.

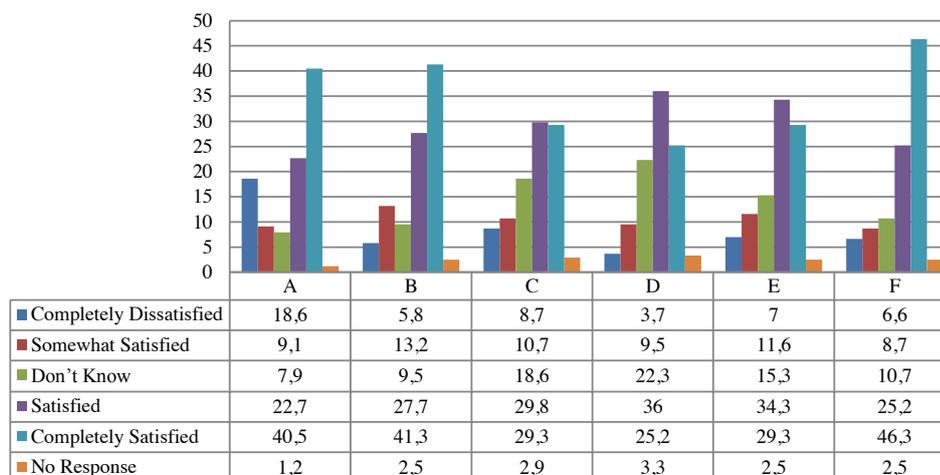
F= Lifelong learning is learning for the future.

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 gelişimolanakları. 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

Ann HILLIARD

Bowie State University, USA
Emil:draph1@juno.com

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 Readines

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 be recognized 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 in 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 institutions 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 and 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 types of digital tools, encourage students to work in a cooperative manner in conducting qualitative and quantitative research projects with advisement from teacher leaders 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 computers for students and teacher leaders. Teacher leaders may use a number of digital assessment tools (Sheninger, 2014). Some of the well known 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.
- Kukulka-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). Moogole, 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>.

*5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



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.



Ambassador of Sustainability in Education & Leadership: A case of Public Libraries in Multicultural Society

Faiza BASHIR¹

*¹Assistant Professor, Government College for Women, Township, Lahore, Department of Library & Information Science
Email: faizavirgo@yahoo.com*

Almas KHANUM²

*²Assistant Professor, Government College University, Lahore, Faculty of Arts & Humanities, Urdu Department
Email: dr.almaskhanum@gcu.edu.pk*

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 quiet different as compare 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

Andrea PREISSOVÁ KREJČÍ¹

¹PhD, Silesian University, Faculty of Public Policies in Opava, Centre for Empirical Research
Email: andrea.krejci@email.cz

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 Abrahámová 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” (Abrahámová, 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 (Abrahámová, 2013, 46-48). Abrahámová 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.

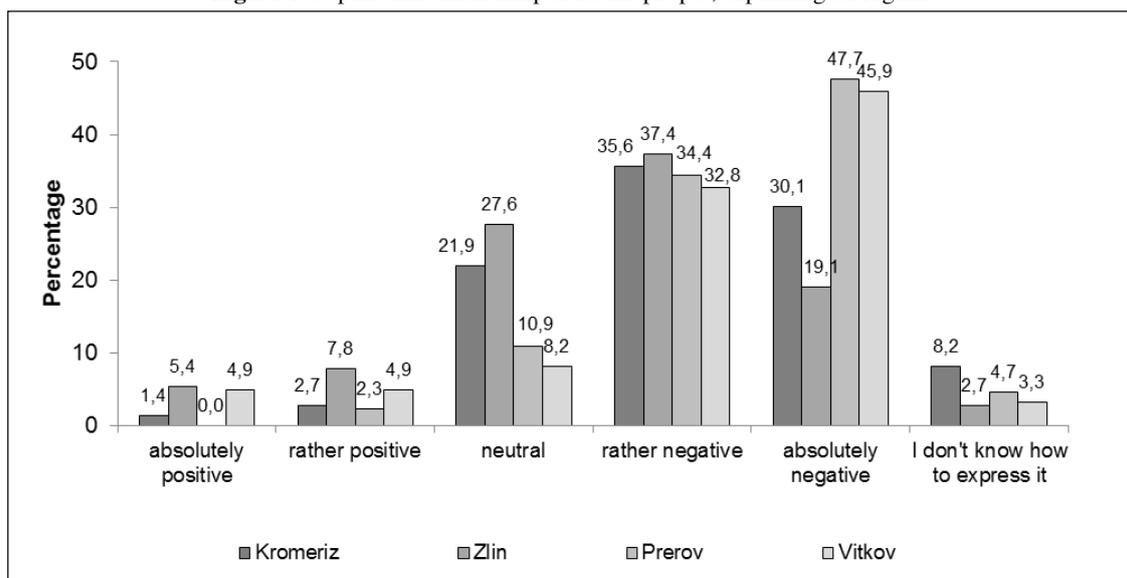
A considerable number (31.3 %) consider fear of foreigners to be legitimate, because they can pose a danger. Among the remaining answers the more visible trend (8.8 %) is the view that fear of foreigners is quite appropriate because foreigners threaten us (they live at our expense - take our people's 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.

Acknowledgments

The study was created within the project IGS/21/2019 “Compatriotic schools in Croatia with possibility of traineeships for students of Faculty of Public Policies of Silesian University in Opava” supported by the Internal Grant System of Silesian University in Opava.

References

- Abrhánová, 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 Multicultural Education: From Theory to Practice*. Lanham: Rowman & Littlefield Publishers.
- Eriksen, T. H. (2008). *Sociální a kulturní antropologie: přibuzenství, 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.
- Jirák, 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). *Obraz 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 multikulturální výchovy*. Olomouc: Univerzita Palackého.
- Preissová Krejčí, A. (2013). Multikulturální koncept ve vzdělávání a výchově v České republice. In Preissová Krejčí, A., Juárez Toledo, R., et al. *Sociální exkluze v multikulturálních 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

Andrea PREISSOVÁ KREJČÍ¹

¹PhD, Silesian University, Faculty of Public Policies in Opava, Centre for Empirical Research
Email: andrea.krejci@email.cz

Martina CICHÁ²

²Associate professor, Palacký University, Faculty of Education, Department of Anthropology and Health Education
Email: martina.cicha@upol.cz

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. Preissova 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 (Preissova Krejčí 2006; published as in Preissova 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.

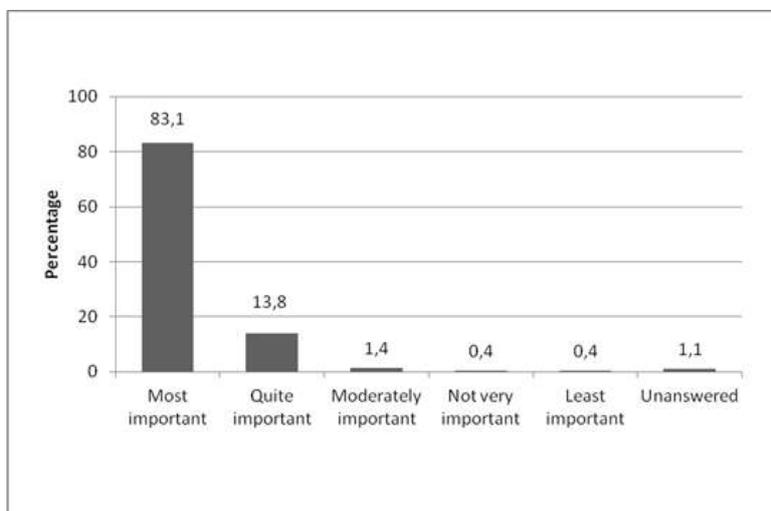
The questionnaire was structured into three thematic areas, the first of which focused on value-orientations of the students, the second on the form and criteria of evaluations concerning the shortcomings of pupils and teachers in the course of the educational process, and the third on the possible impact 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.

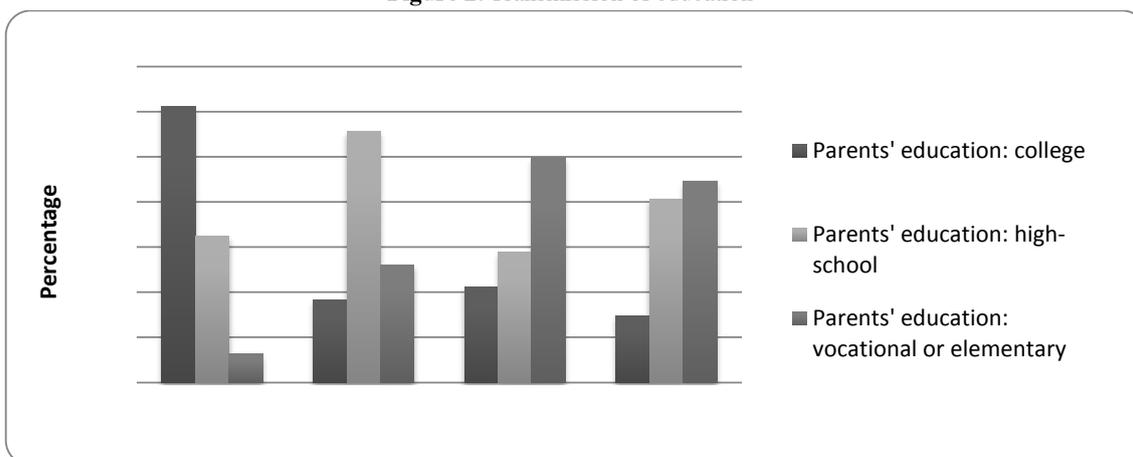
The order of values in the system of values of the surveyed youth could be summarized in the following descending order: 1. Health, 2. Friendship, 3. Family, 4. Love and Partnership, 5. Education, 6.-7. Being helpful to others and Success in school, 8. Leisure activities, 9. Money and Wealth, 10. Looking 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.

Acknowledgments

The study was created within the project IGS/21/2019 “Compatriotic schools in Croatia with possibility of traineeships for students of Faculty of Public Policies of Silesian University in Opava” supported by the Internal Grant System of Silesian University in Opava.

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 ošetrovatelstve 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

Jana KOČÍ¹

¹*Student PhD, Palacký University, Faculty of Education, Department of Anthropology and Health Education
Email: jana.koci@upol.cz*

Andrea PREISSOVÁ KREJČÍ²

²*PhD, Silesian University, Faculty of Public Policies in Opava, Centre for Empirical Research
Email: andrea.krejci@email.cz*

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 Jugoslavia 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 Končenic 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 Končenic (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 Končence 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 Končence 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, they 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.

Acknowledgments

The study was created within the project IGS/21/2019 “Compatriotic schools in Croatia with possibility of traineeships for students of Faculty of Public Policies of Silesian University in Opava” supported by the Internal Grant System of Silesian University in Opava.

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 Hruběčnopolsku*. 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 Hruběčnopolsku*. Daruvar: Jednota, 21–47.
- Vinter, J. (2007). *Česká a chorvatská škola v Končenicích*. Daruvar: Jednota.



The Beginning of Czech Education in Croatia (1921-1941)

Jana KOČÍ¹

¹*Student PhD, Palacký University, Faculty of Education, Department of Anthropology and Health Education
Email: jana.koci@upol.cz*

Andrea PREISSOVÁ KREJČÍ²

²*PhD, Silesian University, Faculty of Public Policies in Opava, Centre for Empirical Research
Email: andrea.krejci@email.cz*

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 – Prokúpkova 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 – Prokūpkova 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.

Acknowledgments

The study was created within the project IGS/21/2019 “Compatriotic schools in Croatia with possibility of traineeships for students of Faculty of Public Policies of Silesian University in Opava” supported by the Internal Grant System of Silesian University in Opava.

References

- Archiv Svazu Čechů*, fond Československá (Česká) Beseda Daruvar (1960–1999), kart. V/4 Korespondence 1920–41, 1946–1955, Prokūpkova 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: krajské 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

Murad BAGIRZADEH¹

¹*PhD, Research Institute of Economic Studies, Azerbaijan State Economic University (UNEC), Head of Department
AZ1001, İstiqlaliyyet 6, Baku, Azerbaijan,
Email: mbagirzadeh@yandex.ru*

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 - EFECT, 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? (<i>multiple answers</i>)	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? (<i>multiple responses</i>)	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	R Square 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						
Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics 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 (EFFEFFECT), Ten European Principles for the Enhancement of Learning and Teaching. (2018) <http://bit.ly/EFFEFFECTprinciples> (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

Nicolae TARFULEA¹

¹PhD Student, POLITEHNICA University of Timisoara, Romania, Power Systems Department
Email: tarfulea_nick@yahoo.com

Flaviu Mihai FRIGURA-ILIASA²

²Assoc. Prof. Dr., POLITEHNICA University of Timisoara, Romania, Power Systems Department
Email: flaviu.frigura@upt.ro

Petru ANDEA³

³Prof. Dr., POLITEHNICA University of Timisoara, Romanian Academy of Scientists
Email: petru.anda@upt.ro

Sorin MUSUROI⁴

⁴Prof. Dr., POLITEHNICA University of Timisoara, Romanian Academy of Scientists
Email: sorin.musuroi@upt.ro

Doru VATAU⁵

⁵Prof. Dr., POLITEHNICA University of Timisoara, Romania, Power Systems Department
Email: doru.vatau@upt.ro

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

Bogdan FILIP¹

*¹PhD Student, POLITEHNICA University of Timisoara, Romania, Power Systems Department
Email: bogdan.filip@yahoo.com*

Flaviu Mihai FRIGURA-ILIASA²

*²Assoc. Prof. Dr., POLITEHNICA University of Timisoara, Romania, Power Systems Department
Email: flaviu.frigura@upt.ro*

Madlena NEN³

*³Assoc. Prof. Dr., Military Technical Academy of Bucharest, Romania, Management Department
Email: madlenanen@yahoo.com*

Hannelore FILIPESCU⁴

*⁴Assoc. Prof. Dr., POLITEHNICA University of Timisoara, Romania, International Rel. Department
Email: hannelore.filipescu@upt.ro*

Lia DOLGA⁵

*⁵Prof. Dr., POLITEHNICA University of Timisoara, Romania, International Rel. Department
Email: lia.dolga@upt.ro*

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

Elvis DOGARU¹

¹PhD Student, POLITEHNICA University of Timisoara, Romania, Power Systems Department
Email: dogaru_elvis@yahoo.com

Mihaela FRIGURA-ILIASA²

²Assist. Prof. Dr., POLITEHNICA University of Timisoara, Romania, Power Systems Department
Email: mihaela.frigura@upt.ro

Madlena NEN³

³Assoc. Prof. Dr., Military Technical Academy of Bucharest, Romania, Management Department
Email: madlenanen@yahoo.com

Hannelore FILIPESCU⁴

⁴Assoc. Prof. Dr., POLITEHNICA University of Timisoara, Romania, International Rel. Department
Email: hannelore.filipescu@upt.ro

Lia DOLGA⁵

⁵Prof. Dr., POLITEHNICA University of Timisoara, Romania, International Rel. Department
Email: lia.dolga@upt.ro

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 these challenges and complexities of the 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 that 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 safety.

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.

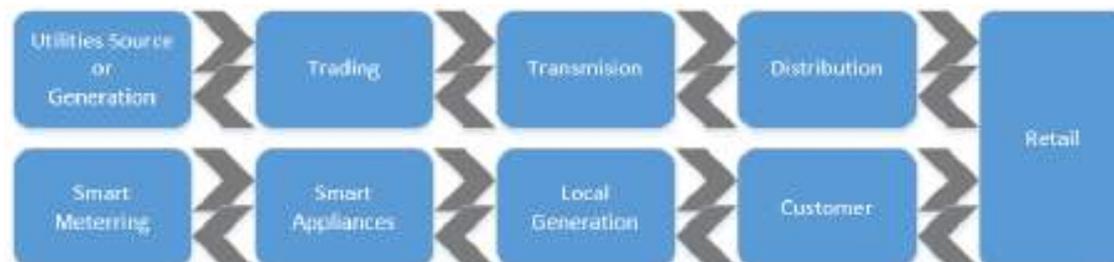


Figure 2. Bidirectional data-driven flow chain with smart utilities

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.

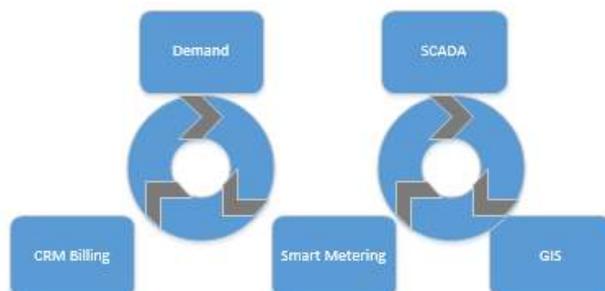


Figure 3. Smart metering interactions

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.

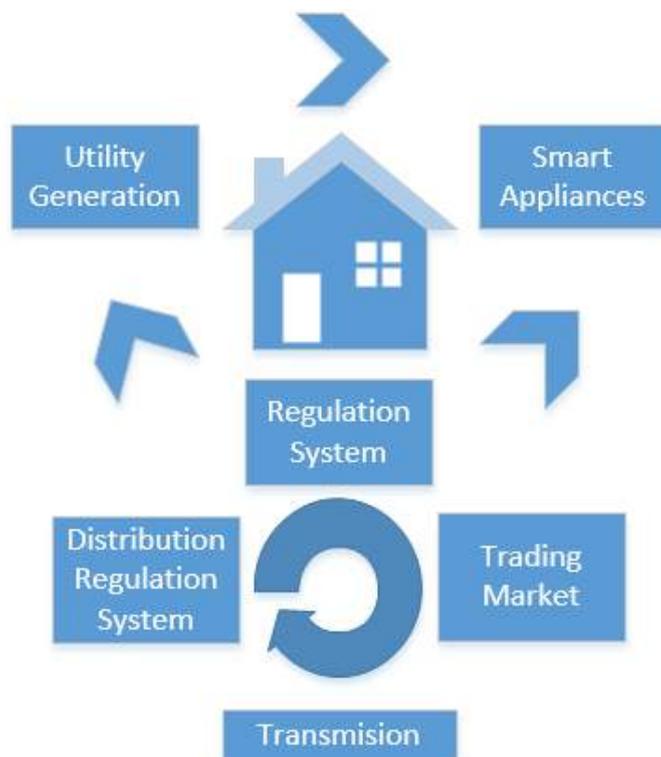


Figure 4. Regulation system modules

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 Lightning
Energy generation	Solar panel Windmill Heat pump
Trading market	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	Ambient 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 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.



Indicators of External Respiration and the Effectiveness of Underwater Phase in Swimming

Jelena SOLOJOVA

Dr. Pead. Latvian Academy of Sport Education

Email: jelena.solovjova@lspa.lv

Germans YAKUBOVSKIS

PhD student, Latvian Academy of Sport Education

Email: germans.jakubovskis@lspa.lv

Imants UPITIS

Dr.biol, Latvian Academy of Sport Education

Email: imants.upitis@lspa.lv

Irena DRAVNIECE

Dr.Paed, Latvian Academy of Sport Education

Email: irena.dravniece@lspa.lv

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), Lyttle 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 ±5,8	67,75±3,2	22
Juniors female	16-17	170,25±6,1	59,51±4,7	18
Adults, male	18-24	190,16±8,7	83,83±6,3	18
Adults, female	18-24	178±4,3	67,4±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., Chodinow 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., & Romyantsev, 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

PlagScan Results of plagiarism analysis from 2019-06-28 09:07 UTC

2.8%

Article ready for use. doc x

Date: 2019-06-28 09:04 UTC

All sources 3 | Internet sources 3

- | | | | |
|-------------------------------------|-----|--|----------------|
| <input checked="" type="checkbox"/> | [0] | https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3873664/ | 2.2% 8 matches |
| <input checked="" type="checkbox"/> | [1] | https://www.thefreelibrary.com/Searching... from...-a0176818641 | 2.2% 8 matches |
| <input checked="" type="checkbox"/> | [2] | https://link.springer.com/chapter/10.1007/978-3-319-75547-2_25 | 0.8% 2 matches |

6 pages, 2663 words

PlagLevel : 2.8 % selected / 2.8 % over all

10 matches from 3 sources, of which 3 are online sources.

Settings

Data policy: Compare with web sources, Check against my documents

Sensitivity:

Medium

Bibliography:

Consider text

Citation detection: Reduce PlagLevel

Whitelist: --

*5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019 / Azerbaijan State University of Economics, Baku/ AZERBAIJAN*



INTERNATIONAL CONFERENCE ON
LIFELONG EDUCATION AND LEADERSHIP
FOR ALL



The Media Representation of People with Visual Impairment

Kateřina KROUROPOVA ¹

*Institute of Special Education Studies, Faculty of Education, Palacky University Olomouc, Zizkovo nam, 5, 771
40 Olomouc, Czech Republic, katerina.stejskalova@gmail.com*

Veronika RUŽICKOVA ²

*Institute of Special Education Studies, Faculty of Education, Palacky University Olomouc, Zizkovo nam, 5, 771 40
Olomouc, Czech Republic, veronika.ruzickova@gmail.com*

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 (Sedlřakovř, 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 Sedlřakovř, 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.” (Jiráček, Köpplová in Sedláčková, 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 Sedláčková, 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 Jiráček (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 (Růžičková, Kroupová, Lopúchová, 2016; Růžičková, 2017; Růžičková, Kroupová, Vondráčková, 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; Pirsl, D.; Pirsl, 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, Bajerová (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, Bajerová (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
‘slepí’ (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 Vlačovičky". "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 Říha 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 Říha, 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...	1	0.48 %
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.

Acknowledgments

The paper was realized with the support of the project *Development of independent movement through tactile-auditory aids*, Nr. TL01000507, supported by the Technology Agency of the Czech Republic and of the project IGA_PdF_2019_019 *Family - Child with Disabilities – Education*.

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) *Obraz 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) *Obraz 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

Ilze MIKELSONE¹

¹Prof., Liepaja University, Faculty of Education and Social Work, Lielā Street 14, Liepāja, LV-3401, Latvia,
ilze.mikelsone@liepu.lv

Lāsma LATSONE²

²Assist. Prof., Liepaja University, Faculty of Education and Social Work, Lielā Street 14, Liepāja, LV-3401, Latvia,
lasma.latsone@liepu.lv

Jana GRAVA³

³Assist. Prof., Liepaja University, Faculty of Education and Social Work, Lielā Street 14, Liepāja, LV-3401, Latvia,
jana.grava@liepu.lv

Nellija EGLĪTE- BRIEDE⁴

⁴Mg.paed., Liepaja University, Faculty of Education and Social Work, Lielā Street 14, Liepāja, LV-3401, Latvia,
nellijaeglite@hotmail.com

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 pedagoģu 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 (Tūliki, Tūla & 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; Tūliki, Tūla & 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 (Tūliki, Tūla & 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	of 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	and Identification of individual needs, development of individual work style, planning of further education and professional development
	Observation of colleagues "shadowing"	of or 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.
- Kristapsons, S. (2014). *Zinātniskā pētniecība studiju procesā.* Rīga, Biznesa augstskola Turība.
- Līdere. 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*. Martinsons, 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>



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.

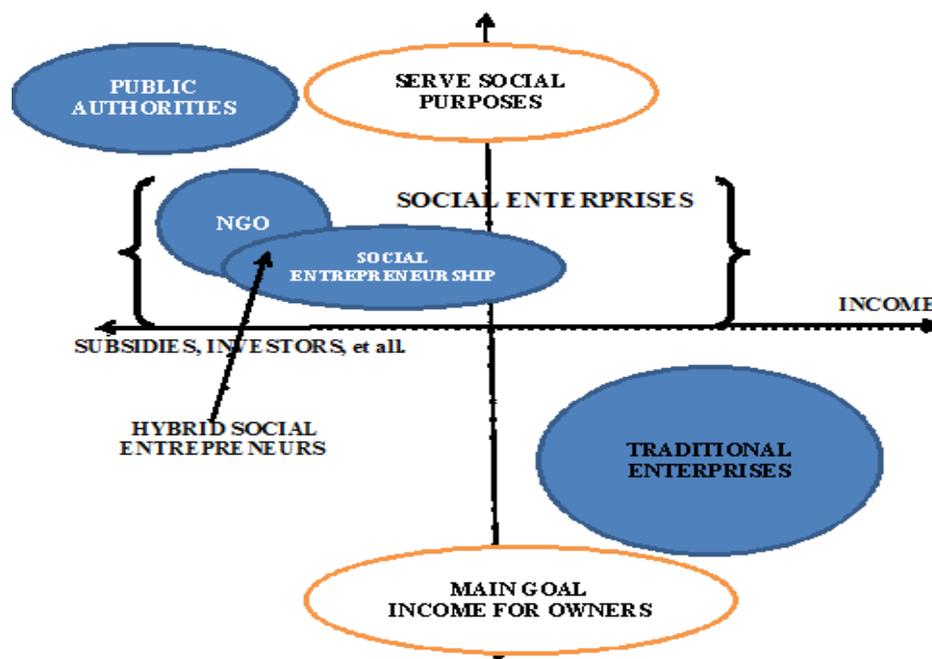


Fig.1. Social enterprise building environment (created by authors)

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)

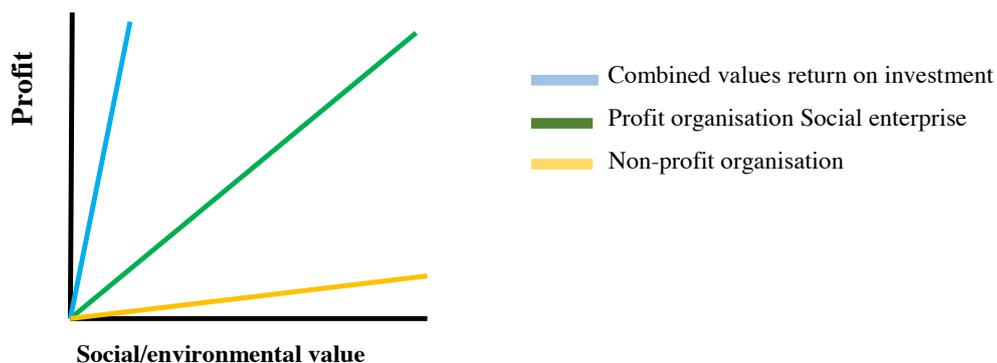


Fig.2. Combined value investment return (created by author Leikuma, 2012)

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 (blended 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.)

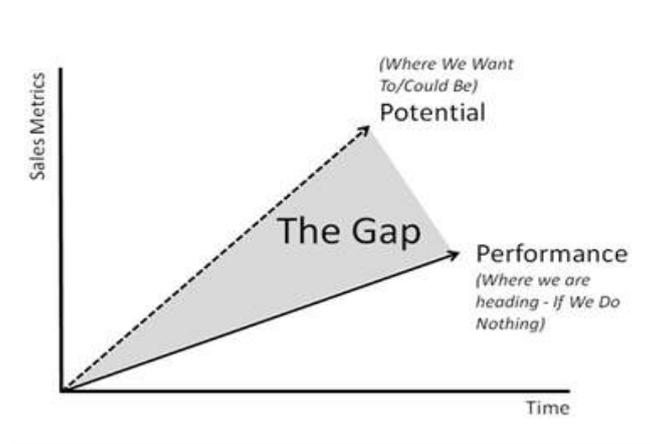


Fig.3.Interval analysis concept (Gap analysis, 2019)

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.)

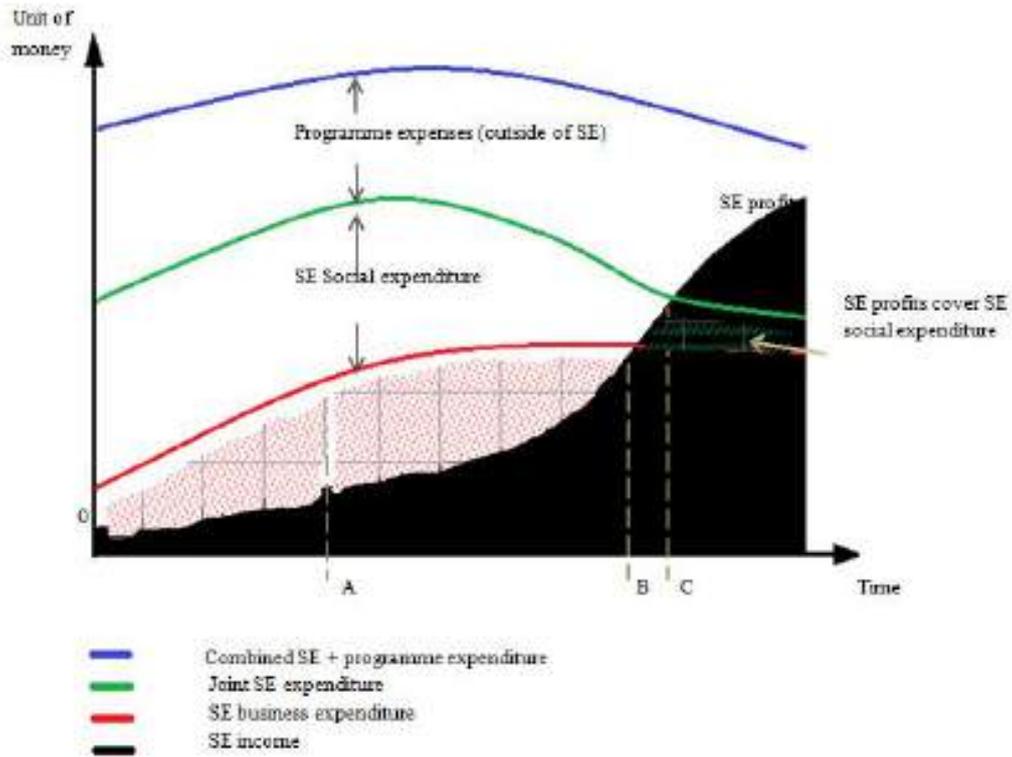


Fig.4. Economic rationale for the social enterprise (created by author Leikuma, 2012)



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., Špilova, 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, Rīga, RTU
- Lešinska A., Lītvins 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.htm

*5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



- 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/>



Program Accreditation: a Catalyst Towards Quality Enriched Education System in Oman

Mohamed HANEEFUDDIN¹

¹*A'Sharqiyah University, Ibra, Sultanate of Oman*
E-mail: mdhaneef65@gmail.com

Afraz Begum MOHAMMAD²

²*A'Sharqiyah University, Ibra, Sultanate of Oman*
rockafraz20@yahoo.com.

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.

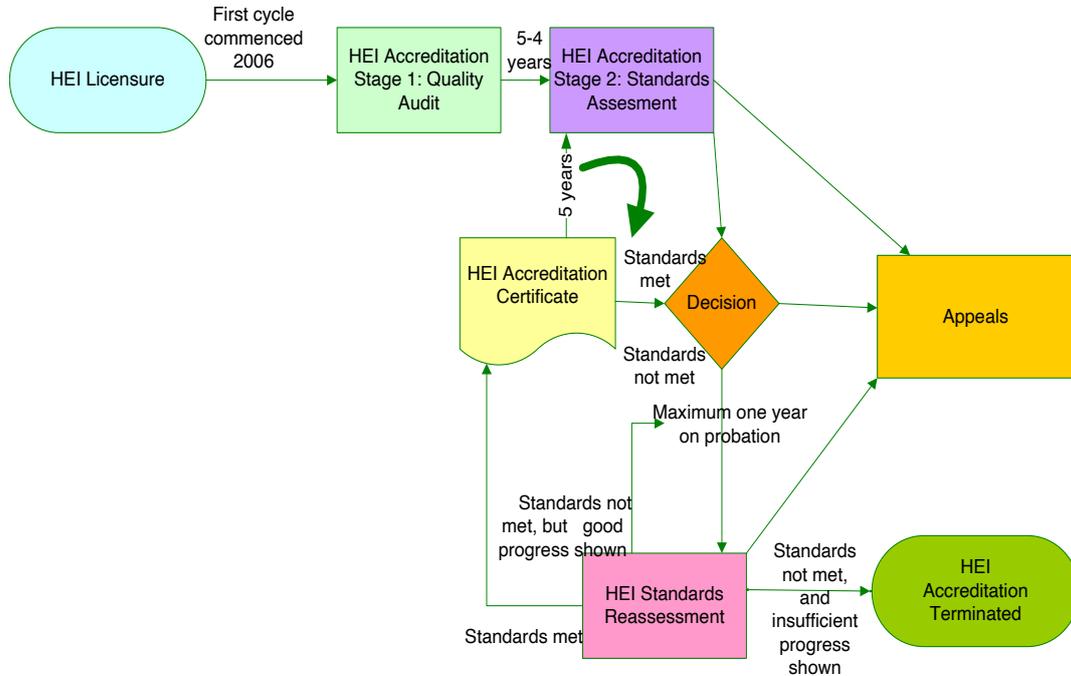


Fig. 2 Institutional accreditation system

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 (Vebrá 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>
<ul style="list-style-type: none"> • <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.</i> 	<ul style="list-style-type: none"> • <i>Approval by a supervising ministry in Oman for an institution to be established or for a program to run. This is termed licensing.</i> • <i>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).</i> • <i>Approval by an international affiliate that one of its programs can be delivered at an Omani HEI. This may be termed a franchise arrangement.</i> • <i>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.</i> • <i>Undergoing OAAA Quality Audit. Quality Audit is the first stage of institutional accreditation; this does not result in an accreditation outcome.</i> • <i>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.</i>

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:

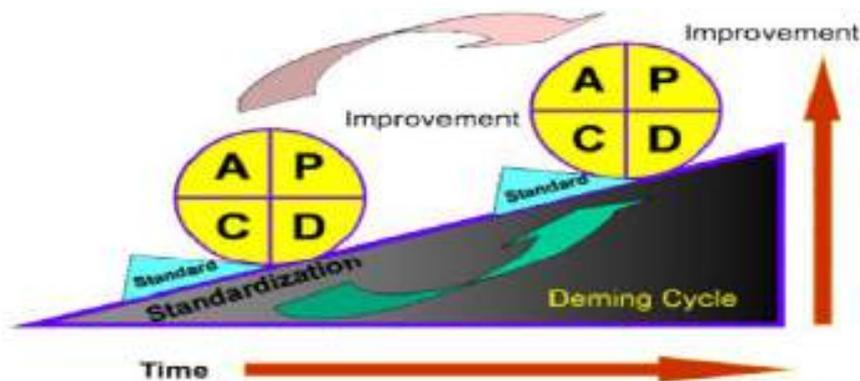


Fig. 3 Evaluation of educational programs

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
-



-
- 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.

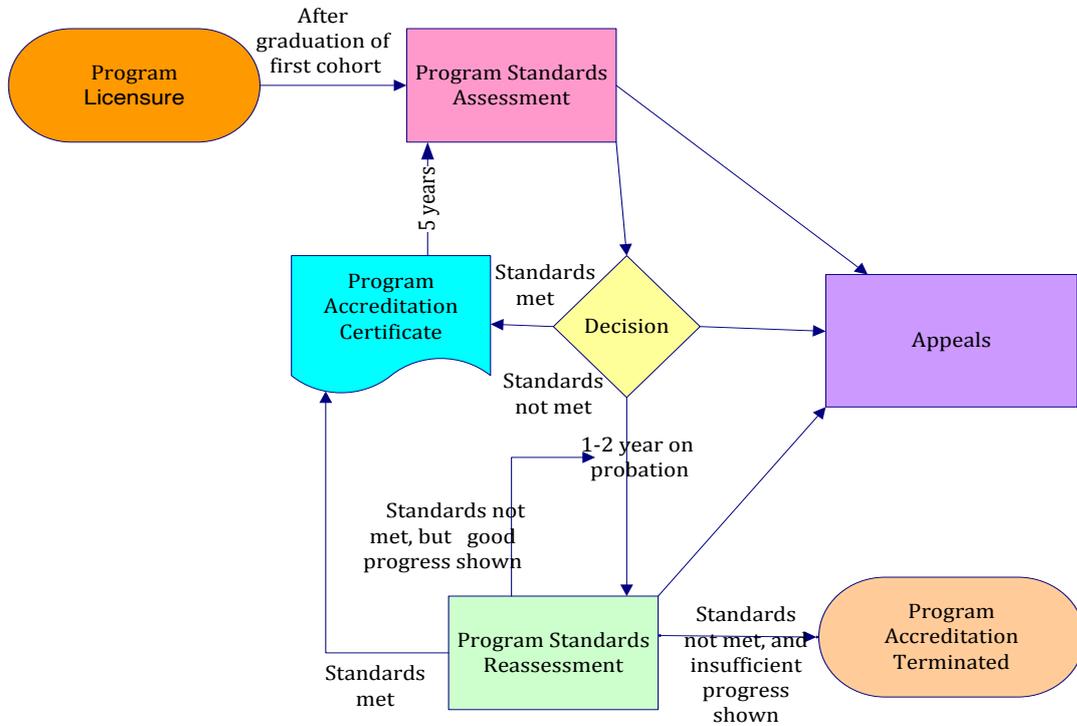


Fig. 4 Program accreditation

• **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) Chartered Institute of Management Accountants (CIMA) Institute of Chartered Accountants in England and Wales (ICAEW) Chartered Institute of Management Accountants (ACCA)
Business and Management	Association of MBSs (AMBA) Association to Advance Collegiate Schools of Business (AACSB) EQUIS/European Foundation for Management Development (EFMD)
Education	National Council for Accreditation of Teacher Education (NCATE) 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

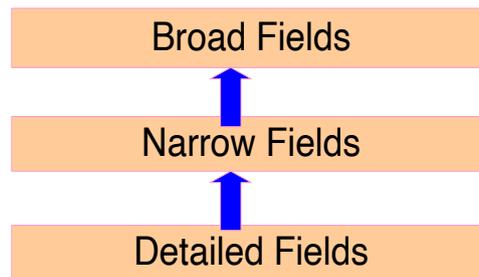
1. Promoting culture of quality and academic accreditation among workers in the enterprise: This can be achieved through the development of community awareness of the value of quality; and through the striving to raise the desire of individuals to achieve the highest levels of performance.
2. Dissemination 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 Board 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.

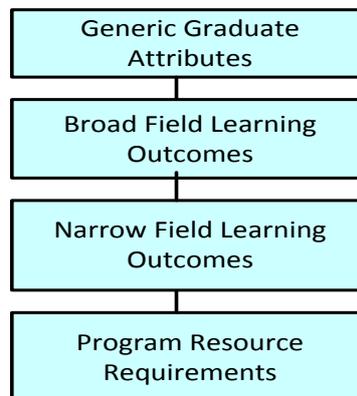


Fig. 6 Components of national academic standards



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.

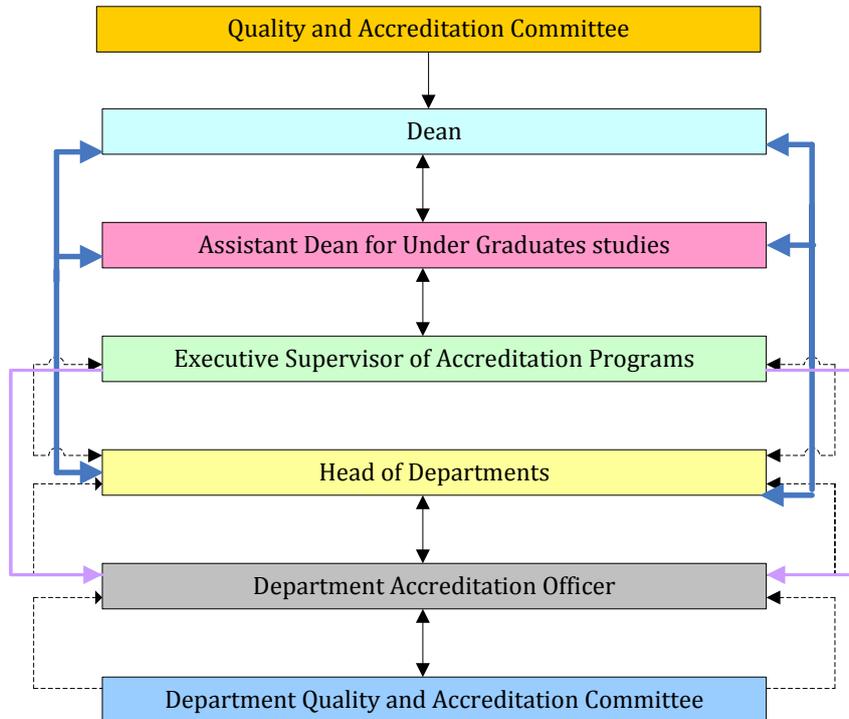


Fig. 7 Proposed Organizational Structures for the Accreditation Team in the College

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.inqaahe.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--EMPSwMTQUIyBNxG07juvBLw_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-Wuerttemberg 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/glossary/>; (accessed 2/3/2104); Copyright Lee Harvey 2004-13.
- INQA AHE (2007) *Guidelines for Good Practice* <http://www.inqaah.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 Framework v3* <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 (INQA AHE) 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

5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN



- 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].



A New Psychotherapy Approach: Logotherapy

Cansu BAYRAKCI¹

¹Üsküdar University, Social Sciences Institute, PhD Student in Psychology

Email:cansualann_91@hotmail.com

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 logo therapists 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 counsellee raise awareness of his spiritual needs in order that the counsellee 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 counsellees 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, counsellees 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 counsellee conscious of the perception that the symptom and the counsellee are different. It includes helping the counsellee 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 counsellee towards himself and his life with the perception that he is distant from his symptoms in the second stage of the therapy process. The counsellee 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 counsellees emerges. The counsellee is open to new meaning orientation. In this process, meaning is discovered and revealed by a common orientation between the logo therapist and the counsellee (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 counsees. 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). *DuyulmayanAnlamÇığılığı*. (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

Gülten KOŞAR¹

¹*Dr., Hatay Mustafa Kemal University, Department of English Language Teaching
Email: gencoglugulden@gmail.com*

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&Teddlie (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 Baş (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). Why 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.



Aspects of Holistic Space Economics from the Perspective of Sustainable Development

Tomáš R. ZEITHAMER¹

¹*Ing., Ph.D., Faculty of Informatics and Statistics, Department of Mathematics, Economic University, Prague,
Ekonomická 957, 140 00 Prague, Czech Republic
Email: zeith@vse.cz*

Jiří POSPÍŠIL²

²*Prof., Ing., CSc., Faculty of Civil Engineering, Czech Technical University in Prague, Faculty of Civil Engineering,
Thákurova 7, 166 29 Prague, Czech Republic*

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

$$R^{\nu}_{\kappa\lambda\mu} = \frac{\partial \Gamma^{\nu}_{\kappa\lambda}}{\partial x^{\mu}} - \frac{\partial \Gamma^{\nu}_{\kappa\mu}}{\partial x^{\lambda}} + \Gamma^{\nu}_{\kappa\sigma} \Gamma^{\sigma}_{\mu\lambda} - \Gamma^{\nu}_{\lambda\sigma} \Gamma^{\sigma}_{\kappa\mu}. \quad (14)$$

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 $R^{\nu}_{\kappa\lambda\mu}$.

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.

Acknowledgement

We would like to express our thanks to the National Library of Technology (NLT) of Czech Republic and to a great number of libraries of Institutes of the Czech Academy of Sciences (CAS) as well as to libraries of Czech Technical University and Charles University and also of the Library of the Institute of Clinical and Experimental Medicine (LICHEM) for outstanding help during preparation of this paper. Our acknowledgement is also addressed to Managing Director Mr. Jiří Břichnáč and to the firm Tomados Ltd. for technical assistance and financial support, without their contribution would not be possible to finish the article. For the opportunity to lay the foundations of a discipline "Space Holistic Economics" and to initiate and carry out basic research in this new field of science we also thank two faculties of the University of Economics in Prague, the Faculty of International Relations and the Faculty of Informatics and Statistics. This paper is dedicated to Mrs. Věra Ruml Zeithamer, Mr. Josef Ruml Zeithamer, Mrs. Anna Ruml, Mr. František Ruml, Ing. Milan Pospíšil, RNDr. Jiří Mrázek, CSc. and prim. MUDr. Karel T. Veselý, CSc. .

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).

*5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 / July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*



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

Radka DOFKOVÁ, Jitka LAITCHOVÁ

Palacký University Olomouc, Faculty of Education, Department of Mathematics

Email: radka.dofkova@upol.cz, jitka.laitochova@upol.cz

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:

H_0 : 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.

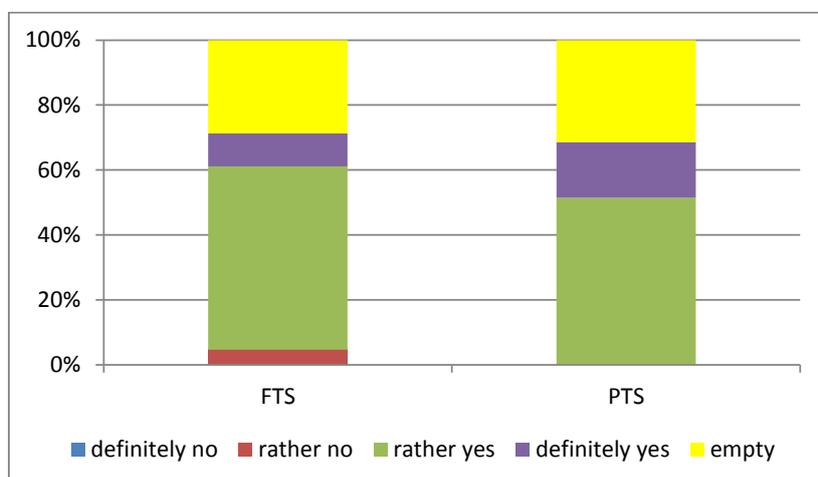
Findings

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

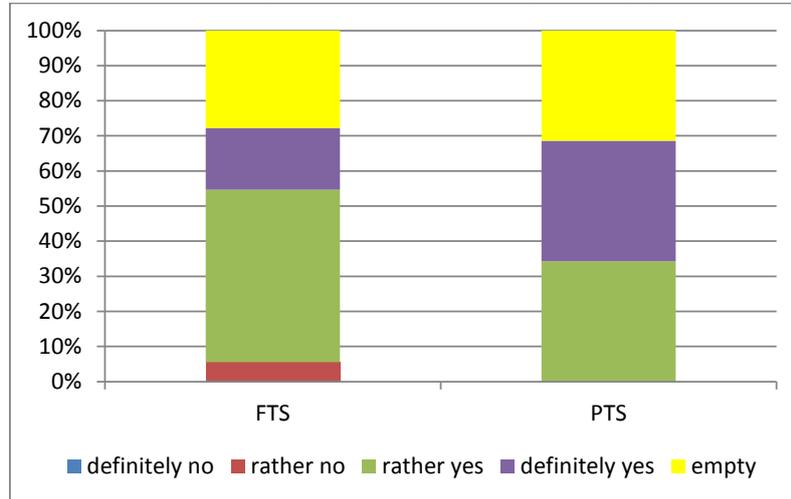


The effect of graded tasks on the development of mathematical thinking (Item 4) was assessed positively by 66.7% of FTS and 68.6% of PTS. A negative assessment was indicated by only 5.6% of FTS. A total of 27.8% of responses by FTS and 31.4% of responses by PTS remained unanswered (Chart 2).

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.



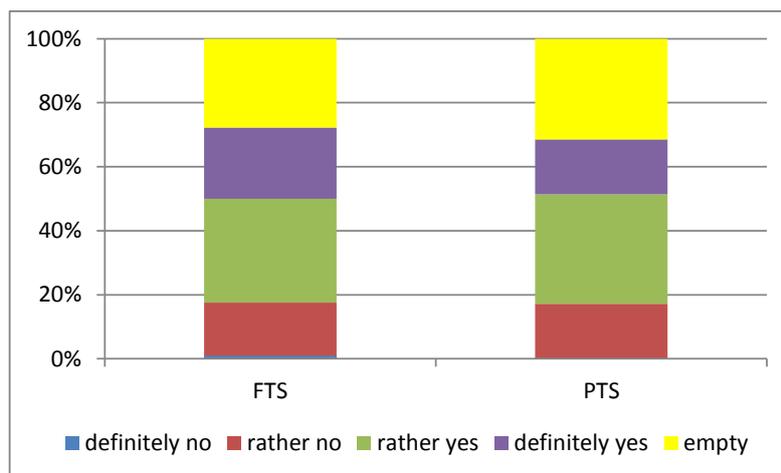
Chart 2. Assessment of the effect of graded tasks on the development of pupils' mathematical thinking



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



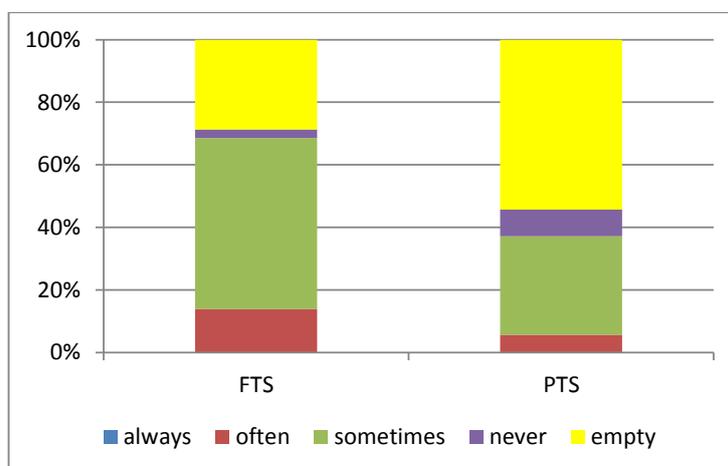
Inclusion of graded tasks in mathematics classes (Item 6) was answered as follows: always – no respondents, often – 13.9% of FTS and 5.7% of PTS, sometimes – 54.6% of FTS and 31.4% of PTS, and never – 2.8% of FTS



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.

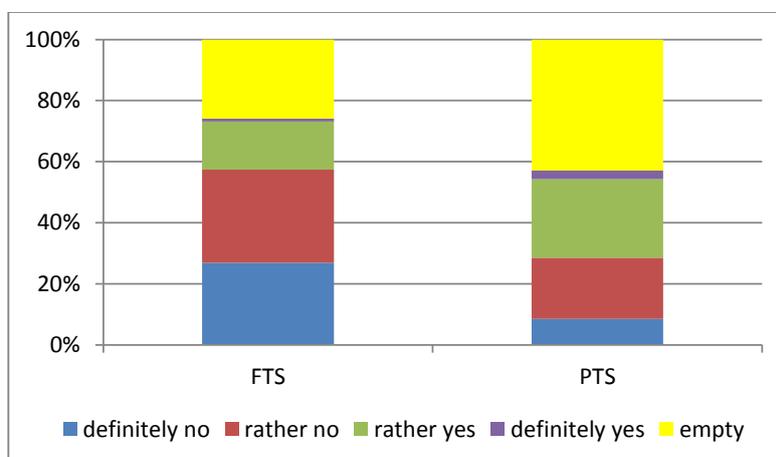
Chart 4. Frequency of including graded tasks in mathematics classes



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

The paper was written under the support of the grant *"Pedagogical situations in mathematics education"* (IGA_PdF_2019_007) and *"Math teachers' preparedness for pupils' digital literacy development"* (IGA_PdF_2019_001).

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

Simona DOBEŠOVÁ CAKIRPALOGLU¹, Jana KVINTOVÁ¹, Panajotis CAKIRPALOGLU²

¹Palacký University in Olomouc, Department of Psychology and Psychopathology, Faculty of Education, Czech Republic

²Palacký University in Olomouc, Department of psychology, Faculty of Art, Czech Republic

Email: simonacakirpaloglu@gmail.com, jana.kvintova@upol.cz, panajotis.cakirpaloglu@upol.cz

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 to 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	Finance	Leisure time	Sex	Personality	Friends	Living	Total Life Satisfaction	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	Finance	Leisure time	Sex	Personality	Friends	Living	Total Life Satisfaction	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	Finance	Leisure time	Sex	Personality	Friends	Living	Total Life Satisfaction	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. An 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.

Acknowledgements

The study is dedicated to the following project. Internal grant of the Faculty of Education, Palacky University: IGA_PdF_2019_040 Psychosocial factors of social networks overuse in pre-service teachers.

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.



Theoretical and Practical Approaches to the Influence of Public Service on the Relationship between Government and Business

Afag Huseynn¹

¹ *Assoc. Prof., PhD., Department of Economics and Business Administration at UNEC Business School, Azerbaijan State University of Economics (UNEC), The Republic of Azerbaijan*

Hamid Hamidov²

² *Assoc. Prof., PhD., Head of Department of Economics and Business Administration at UNEC, Azerbaijan State University of Economics (UNEC), The Republic of Azerbaijan, Corresponding Author: hamidh@mail.ru*

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

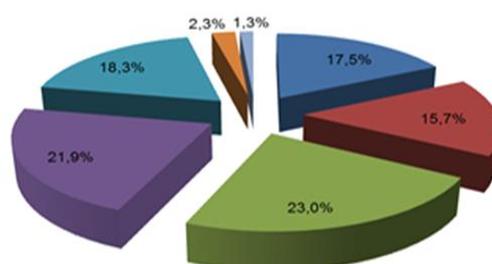
	2013	2014	2015	2016	2017
Altogether, according to the country	29710	30108	30123	30090	29302
Leading administrative positions	9057	9284	9271	9258	9178
Including:					
Administrative positions from the highest to the 3rd category	1107	1147	1173	1214	1313
Administrative positions from 4 to 7 categories	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

- [1] 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>
- [2] Theory of Public Administration, Textbook, Baku, "Science and Education", 2010, p.50
- [3] Ismayilov S., Past, present and prospects of civil service and management system in Azerbaijan. Baku 2013, p.56-57(in Azerbaijan)
- [4] 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)
- [5] 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)
- [6] Lapina N., Chirikova A., Regional elites in the Russian Federation: behavior patterns and political orientations. M., 1999(in Russian)
- [7] Nureev R.M. (2005). Theory of public choice. M.: SU-HSE. pp. 31–32, 165–166, 209–210. (in Russian)
- [8] 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>
- [9] 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)
- [10] Shokhin A.N., Korolev E.A. The interaction of business and government in the European Union.M., 2008
- [11] 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-1.pdf
- [12] Yasin E. The burden of the state and economic policy // Questions of economy. 2002 №11. p. 7 (in Russian)
- [13] 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.
- [14] Hardin, R. (1991) Collective Action. The Johns Hopkins University Press.



- [15] Hardin, R. (1995) One for All. The Logic of Group Conflict. Princeton University Press.
- [16] 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
- [17] <http://www.stat.gov.az/source/labour/>



Continuous Development of ICT Competence on the Example of the Personnel Department in the Banking Sphere of Azerbaijan

Aida GULIYEVA¹

¹ *Assoc.Prof., Ph.D., Azerbaijan State University of Economics, Faculty of Technology and Design, Department of Digital Economy and ICT, Email: aida.guliyeva@unec.edu.az*

Ulviyya RZAYEVA²

² *Assist.Prof., Ph.D., Azerbaijan State University of Economics, Faculty of Technology and Design, Department of Digital Economy and ICT, Email: ulviyya.rzayeva@unec.edu.az*

Aygun ABDULOVA³

³ *Lecturer, Azerbaijan State University of Economics, International Magistrate and Doctorate Center, Department of Economics and Management, Email: aygun_abdulova@unec.edu.az*

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 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 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.

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 in 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 consequences of the introduction of IT in HRM.

Research methods

The aim of the research 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 is 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 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 are 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.

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 in accordance with developing Azerbaijani legislation, and hiring and benefits management (Guliyeva & Rzayeva, 2019). It also shows poor 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 (Ahmadov & Abdulova, 2019).

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:

$$\text{HC ROI} = (\text{Revenue} - (\text{Expenses} - \text{Compensations})) / \text{Compensations}$$



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 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 the 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's headquarter	Specific HR technology applications developed by other bank's headquarter	Specific HR technology applications developed by other bank's headquarter
Number of HR Professionals	20	20	11	9
HC ROI	5,824151021	1,107982414	3,118410596	14,68444615
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 a 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 formation 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. In order 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 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 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 major 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 has built a model for using IT tools to perform various functions of personnel management in enterprises and in the 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 in the near future.

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 intelligence potential. Despite the fact that 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

- [1] 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
- [2] 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.
- [3] Chetkinkaya, N. (2012). Continuing education in Black Sea Economic Cooperation Member States, Paper Work GA39 / CC37 / REP / 12 / r
- [4] 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
- [5] 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
- [6] 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
- [7] 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
- [8] Hasanov, A. (2013). *Azerbaijan Banking Law (view from the outside)*, ISBN 992 0000000000



- [9] 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
- [10] 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//0021-9010.86.5.81



Globalization and Its Impacts on the Economic Security of the Republic of Azerbaijan

Anar Eyyubov¹

¹Corresponding Author, PhD student, Azerbaijan State University of Economics, Faculty of Economy, Faculty of Russian School of Economics, Department of Economy, Email: h.hamidov@unec.edu.az

Hamid Hamidov²

² PhD in economics, Azerbaijan State University of Economics, Faculty of Economy and Management, Department of Economics and Business Administration

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).

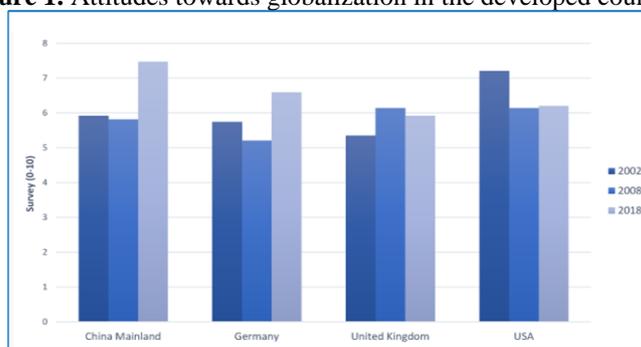
As a result, globalization makes role of state diminish, expands cross border economic interdependence, integrates financial markets, rapids movement of information technology, dominates national policy choice and derives a common culture.

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) dominat role of multionational 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 oppourtinites for the technological development, expansion of labor migration between countires, increasing of capital movement between countires, 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.

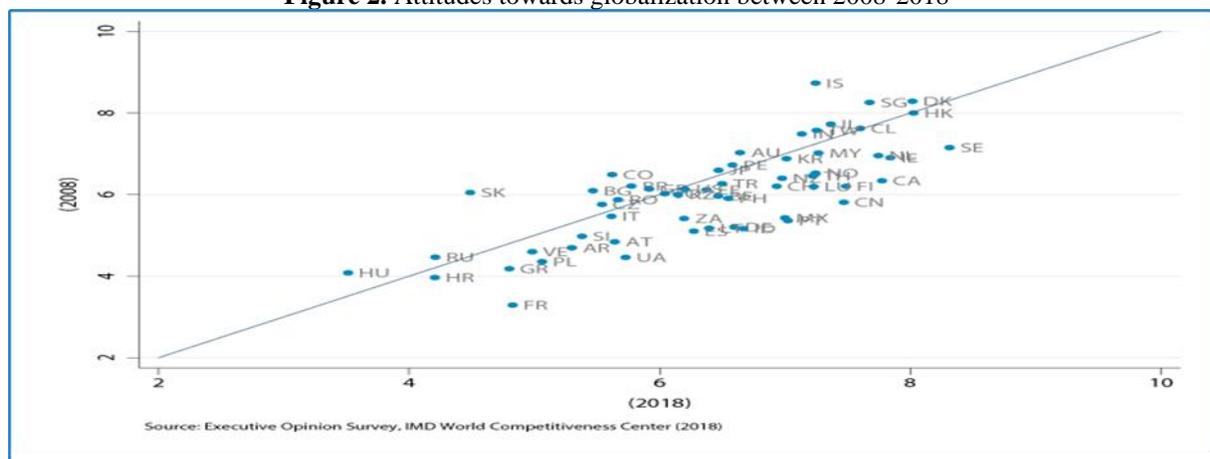


Globalization is reshaping how we have traditionally gone about studying the social world and human culture and a field of globalization studies is now emerging across the disciplines (Appelbaum and Robinson, 2005).

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 disseminating 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 criterias 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 Statistical 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 competition between countries and multinational 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. It 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.

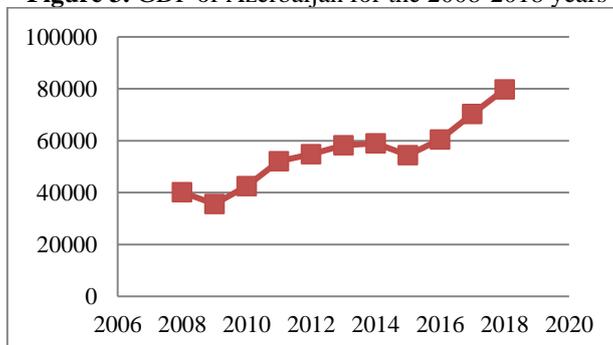
One of the important criteria for economic security is the development of GDP. A normal decline in GDP is considered to be 5–15% of its potential value.

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.

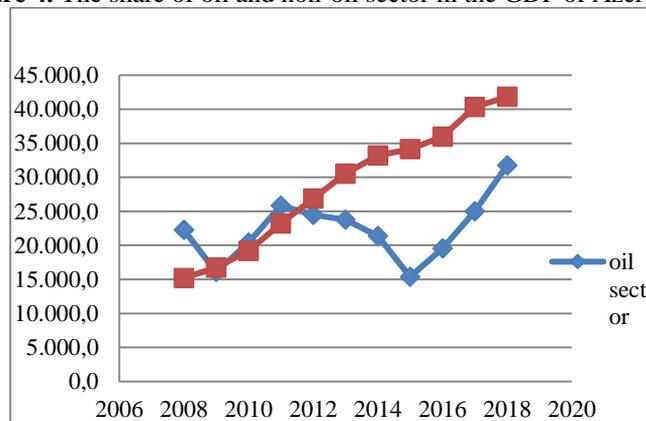
In the modern conditions of expansion of risk of financial crises, one of the most important forms of economic security of a country is its financial security. National economic security also depends on the economic and political factors in a country. State strategy in the field of economic development 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

Summarizing 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

- [1] Appelbaum, R., Robinson, W. (2005). Critical Globalization studies. New York: Routledge.
- [2] 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.
- [3] Hough, P. (2008) Understanding Global Security, 2nd ed., Routledge, London.
- [4] Karl, A., Heinz, H. (2017). Europe taking the lead in responsible globalization, No. 2017-42
- [5] Kahler, M. (2005), Economic security in an era of globalization.
- [6] Kotilainen, M., Kaitila, V. (2002). Economic Globalization in Developing Countries, The journal of Economic in Developing Countries.
- [7] 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.
- [8] 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.
- [9] Neelam S. (2011). Development of Social Democratic Economic ought in Nepal. Tribhuvan University
- [10] Nesadurai, H., (2005), Conceptualising Economic Security in an Era of Globalisation: What Does the East Asian Experience Reveal, CSGR Working Paper No. 157/05.
- [11] 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.
- [12] William, I. (2007) Theories of Globalization.
- [13] www.imd.org/research-knowledge/articles/2018-com-september/#&gid=1&pid=4.
- [14] www.forbes.com/sites/mikecollins/2015/05/06/the-pros-and-cons-of-globalization/#20b5f66dcce.
- [15] www.stat.gov.az/source/system_nat_accounts/



Businesses from Advertising Revenues Impact on the Social and Economic Development

Ayten Hüseyinli¹

¹Corresponding Author, Azerbaijan State University of Economics, UNEC, Azerbaijan, Email: afaq.ahmedova@mail.ru

Afaq Aslanova²

²Azerbaijan State University of Economics, UNEC, Azerbaijan

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.

Keywords: Institutions, Socio-Economic Development, Effective Advertising Activities

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.

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).

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.

Table 1. Correlation analysis of various types of advertising in companies in the Republic of Azerbaijan

ofesadn	wh adver	ad typ	inyead	yousein	ustiner	inethoth	monadox	yusedipa	ysainnya	hmdygd	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

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 euqled to 0.27, 0.15, 0.07. But the opposite relations contain -0,42;-0,84;-0,46;-0,40;-0,10.
- In response 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 reation 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 bst advertising?" This company has direct functional relation (1.00). But its average reation 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.



Figure 1. Distribution of different types of advertising

Regression Statistics	
Multiple R	0,111111
R- square	0,012346
Normalized R- square	-0,11111
Standard error	1,01835
Observed	10

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

- [1] Aytikin, P. (2009) "Ethics of television commercials in advertising ethics in Turkey" <http://www.yök.gov.tr> p.266,
- [2] Dilek, S. (2010) Review of sales ads on the Internet through the misinformation of advertisers p-
- [3] Gokaliler, E. (2010) , "A New Media in Internet Advertising" <http://www.yök.gov.tr>, p.248, Nagiyeva, T. (2004) "Explained advertising dictionary" Baku
- [4] Naghiyeva, T. (2004) "Explained dictionary of advertising" Baku
- [5] Novruzzade, G. (2016) "Selection of Advertising Management Marketing Strategy in Enterprises" Azerbaijan State University of Economics Magistracy Center , p.10-15
- [6] Seeking a goodwill (2010) Examining online sales ads for advertisers in terms of deceptive advertising terms
- [7] 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
- [8] The law of the Republic of Azerbaijan on "Advertising".Law of the Republic of Azerbaijan "On Advertising". Baku, October 3, 2015



Factors that Require the Necessity of Lifelong Learning

Elman Ibishov¹

¹ Senior researcher, Scientific-Research Institute of Economic Studies under Azerbaijan State University of Economics (UNEC), Azerbaijan

Farhad Mikayilov²

²Corresponding author, Senior researcher, Scientific-Research Institute of Economic Studies under Azerbaijan State University of Economics (UNEC), Azerbaijan, Email: f_mikayilov@yahoo.com

Rashad Huseynov³

³Chief of department, Scientific-Research Institute of Economic Studies under Azerbaijan State University of Economics (UNEC), Azerbaijan

Rafael Rzayev⁴

⁴Scientific secretary, Scientific-Research Institute of Economic Studies under Azerbaijan State University of Economics (UNEC), Azerbaijan

Yahya Ozdemir⁵

⁵Instructor, Yalova University Vocational School Department of Computer Technologies, Turkey

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 Yan 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, Kumbas, 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].

Maski 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

- [1] CanLearn (2009, Oct 15, Last modified). Continuing Education - Lifelong Learning, Benefits of Continuing Education. Canada, Retrieved 2011.
- [2] 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.
- [3] Dneprov, E.D. (2011). The newest political history of Russian education: experience and lessons / E.D. Dnieper.- Moscow: Marios, - 455 p.
- [4] Eggelmeyer, S. (2010, November 11). What are the benefits of lifelong learning? Expert Answer. Retrieved 2011.



- [5] Mascle, D. (2007, Mar. 27). No Adult Left Behind: 5 Big Benefits of Lifelong Learning. Article Alley, UK. Retrieved 2011.
- [6] 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.
- [7] 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
- [8] Tissot, P. (2004). Terminology of vocational training policy: a multilingual glossary for an enlarged Europe. Cedefop (Ed).
- [9] Zaitseva, O. V. (2009). Continuous education: basic concepts and definitions / O. V. Zaitseva // Vestnik TGPU- № 7.
- [10] Zotov Y. (2001). View of the teacher. Magazine "Herald of Higher Education", № 4.p.3



Education is a Key Factor in Quality of Life

Farhad Mikayilov¹

¹Senior researcher, Scientific-Research Institute of Economic Studies under Azerbaijan State University of Economics (UNEC), Azerbaijan, Email: f_mikayilov@yahoo.com

Elman Ibishov²

²Senior researcher, Scientific-Research Institute of Economic Studies under Azerbaijan State University of Economics (UNEC), Azerbaijan

Rashad Huseynov³

³Chief of department, Scientific-Research Institute of Economic Studies under Azerbaijan State University of Economics (UNEC), Azerbaijan

Rafael Rzayev⁴

⁴Scientific secretary, Scientific-Research Institute of Economic Studies under Azerbaijan State University of Economics (UNEC), Azerbaijan

Yahya Ozdemir⁵

⁵Instructor, Yalova University Vocational School Department of Computer Technologies, Turkey

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



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 levelthsd. 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

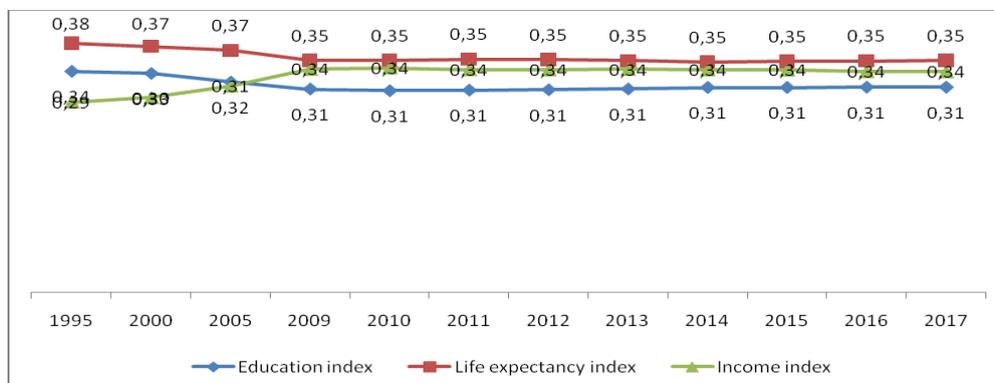
The report of the United Nations Development Program shows that the ratio of education spending to national income from among 132 countries is 4.9%. Cuba, Vanuatu, Lesotho, Yemen, Brunei, Mongolia - 9%, Denmark, Guyana, Malaysia - 8%, America, England, France, Switzerland, Mexico, Iran, Italy, Oman, 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

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

- [1] Denison, Edward F. (1979) Accounting for Slower Economic Growth. Washington: Brookings Institution, 1979.
- [2] European Union (2017) Final report of the expert group on quality of life indicators., p.119
- [3] Gorelova N.A. (2003)The income policy and the quality of life of the population. Ed. Gorelova N.A. Peter, 2003,652 pp
- [4] Mayer V.F. (1988) Planning social development and raising the standard of living of the people. - M., 1988. – from
- [5] Mikayilov F.G.(2013) Devoipment inclinations of the Human Potential in the CIS countries EKO 2013 international conference on Energy, Regional integration, and Sosio-ekonomik development. Baku, Azerbaijan, september 5-6,2013
- [6] Mikayilov F.G. (2017) Poverty based on multidimensional criteria and its assessment problems 2017.pp204
- [7] 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.
- [8] Safiullin, A. R.(2007) Welfare economics. Theory and practice: study guide / A. R. Safiullin. - Ulyanovsk: UISTU, 2007. - 111 p. Page 7
- [9] www.azstart.org
- [10] [https://ru.wikipedia.org/wiki/ Encyclopedic dictionary of F.A. Brockhaus and I.A. Efron. - S.-PB.: Brockhaus-Efron. 1890-1907](https://ru.wikipedia.org/wiki/Encyclopedic_dictionary_of_F.A._Brockhaus_and_I.A._Efron._-S.-PB.:_Brockhaus-Efron._1890-1907)
- [11] <http://hdr.undp.org/en/countries/profiles/AZE>
- [12] <http://www.hdr.undp.org/en/data#>
- [13] <https://www.marxists.org/archive/marx/works/1844/manuscripts/wages.htm>
- [14] <https://ec.europa.eu/eurostat/documents/118025/118123/Fitoussi+Commission+report>



Role of Mathematics in Development of Economics

Gunel Huseynova¹

¹Azerbaijan State University of Economics (UNEC)

Sevinc Zamanova²

²Azerbaijan State University of Economics (UNEC), Corresponding Author, Email: Sevinc.zamanova@gmail.com

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 its 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 consists 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 sector's 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 Coal, 0.5 Electricity, and 0.2 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

- [1] Ashlock, R.B. and Herman Jr. W.L, Current Research in Elementary School
- [2] Mathematics, New York: Macmillan, 1970.
- [3] James.Anice, Teaching of Mathematics, Neelkamal Publication Pvt. Ltd. Hyderabad
- [4] Kulshishtha, A.K. Teaching of Mathematics, R. Lall Book Depot, Meerut-250001
- [5] Miglani,R.K. & Singh, D.P. Teaching of Mathematics At Elementary Level Part I & Part
- [6] II, Arya Book Depot Karol Bagh, New Delhi-110005
- [7] National Curriculum Framework 2005 (NCF-2005)-A Paradigm Shift-Mathematics
- [8] (2005); NCERT publications, New Delhi
- [9] NCERT, New Delhi, Pedagogy of Mathematics, Textbook for Two-Year B.Ed. Course
- [10] Roy Hollands (1990) Development of Mathematical Skills Blackwell Publishers,
- [11] Oxford, London
- [12] Skemp,R.R., The Psychology of Learning Mathematics, Hatmondsworth: Penguin
- [13] Books, 1971.
- [14] Thomas A. Sonnabend (1993) Mathematics for Elementary Teachers (An
- [15] 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..0l2j0i22i30i8.1193.3232..3400...0.0..0.895.1271.0j2j6-1.....0....1..gws-wiz.....0i71j0i67.s36JQW_7qK0&ved=0ahUKEwjZ_eDEqdPjAhXFTRUIHQKnBO4Q4dUDCAo&uact=5
- [16] <https://www.reed.co.uk/career-advice/what-is-lifelong-learning/>
- [17] <https://owlcation.com/social-sciences/Use-of-Mathematics-in-Economics>
- [18] <https://www.maa.org/press/ebooks/applications-of-mathematics-in-economics>



- [19] [http://www.ncert.nic.in/pdf_files/Final-Article
Role%20of%20Mathematics%20in%20the%20Development%20of%20Society-NCER-.pdf](http://www.ncert.nic.in/pdf_files/Final-Article%20Role%20of%20Mathematics%20in%20the%20Development%20of%20Society-NCER-.pdf)
- [20] <http://mathfaculty.fullerton.edu/mathews/n2003/LeontiefModelMod.html>



Institutional Approach to Human Economic Behavior

Ilgar SEYFULLAYEV¹

¹*PhD, assoc.prof. Azerbaijan State University of Economics – UNEC, International Magistrate and Doctorate Center (IMDC), Economy and Management Department Azerbaijan Technical University, Industry Economy and Management Department, email: ilgar.seyfullayev@unec.edu.az*

Rukhsara SEYFULLALI²

²*PhD candidate, Azerbaijan Technical University, Industry Economy and Management Department, e-mail: rukhsara.seyfullali@gmail.com*

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 a 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)

- Ø need for authority and respect from others
- Ø feelings of victory in competition
- Ø 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 determine the origin of honesty more accurately.

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 based on 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:

Ø nobility - in each first meeting with other players, he chooses an agreement.

Ø good memory - he remembers the actions of each player and at the next meeting answers them symmetrically.



Ø know how to forgive - if a rival changes his attitude towards the best (honesty), then “tooth for tooth” forgives him and returns to agreement.

Ø 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

- [1] Axelrod, R. (1984). *The Evolution of Cooperation*. Basic Books, Inc. Publishers New York
- [2] Dawkins, R. (1976)., *The Selfish Gene*. Oxford: Oxford University Press.
- [3] 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
- [4] Monod ,J. (1972). *Chance and Necessity*. Vintage Books. A Division of Random House, New York



- [5] Shiv, B., Lovenstein 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.
- [6] 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
- [7] Веблен, Т.Б. (1984). Теория Праздного Класа, Москва.:Прогресс.
- [8] Гринспен, А. (2010). Эпоха Потрясений. Проблемы и перспективы мировой финансовой системы, пер. с англ. М.:Сколково.
- [9] Друкер, П. (2000). Задачи Менеджмента в XXI веке. пер.с англ. –Москва:Вилиамс, 2000, 272стр.
- [10] Капитализм и Историки/Бертран де Жувенел; Людвиг фон Мизес; Фридрих Хайек; Томас Эштон. Пер. с англ.-Челябинск:Социум, 2012.-xii=398 стр.
- [11] Мандевиль, Б. (1974). Басня о пчелах. Общ. ред. и вступительное слово Б.В.Мееровского, пер. Е.С Лагутина, М. Мысль
- [12] Менгер, К. (2005). Избранные работы. Москва.:Издательский дом «Территория будущего», 2005
- [13] Зомбарт, В. (2005). Буржуа - Этюды по истории духовного развития современного экономического человека, Пер. с нем./редакционная коллегия «Civitas Terrena», Москва: Изд-во «Владимир Даль»
- [14] Токвиль, А. (1972)., Демократия в Америке. Москва:Прогресс
- [15] Смит, А. (1962), Исследование о природе и причинах богатства народов. Москва:Соцэкгиз
- [16] Сторчевой, М. (2011) «Новая модель человека для экономической науки», Журнал «Вопросы Экономики», №4, стр.78-98
- [17] Шумпетер, Й.А. (1981). Теория Экономического Развития, Москва: Прогресс

*5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 // July 09-11, 2019/ Azerbaijan State University of Economics-Baku/AZERBAIJAN*





Study of Effects of Toxigen Fungus in Some Foods

Nasrullayeva Gunash¹

¹Ass PhD in Economics, Azerbaijan State University of Economics (UNEC), Baku

Yusifova Mehriban²

²Author PhD in Biology, Azerbaijan State University of Economics (UNEC), Baku

Maharramova Mehriban³

³Ass PhD in Biology, Azerbaijan State University of Economics (UNEC), Baku, *Corresponding Author:
mqezalova@mail.ru

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.

Keywords: 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.

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 microbiota 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

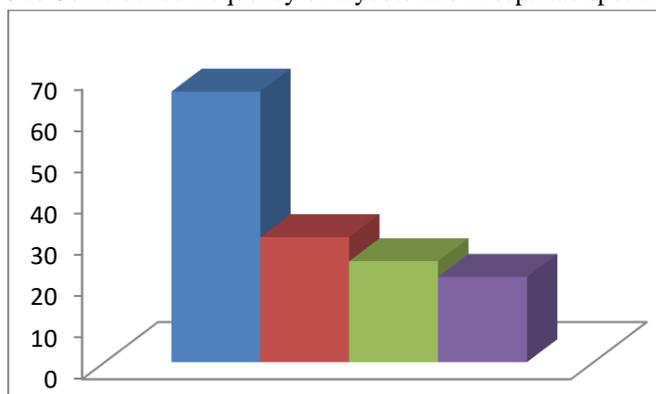
Analyzed products	Composition (annual average factor CFU/g)		Number of stams taken for clean culture	
	Bacteria	Fungus	Bacteria	Fungus
Beef	10100	984	12	26
Mutton	9700	930	11	27
Chicken	104000	1020	13	34
Fruit	48700	5200	10	40

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.

Fruit Chicken Beef Mutton

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.

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.

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”.

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

- [1] Aghayeva E.M. Biotechnology And Gen Engineering. Baku: "Ocaq" Publication, 2008, 618p.
- [2] Jabrayilzada S.M. Study Of Micobiotas Of Fruit Plants Spread In Southern Slopes Of Greater Caucasus (Territory Of Azerbaijan). Dissertation Work Auto Reference Of Phd In Biology. Baku, 2005, 21c.
- [3] Alizada K.S., Maharramova M. H., Muradov P.Z., Gurbanova A.A., Keysekhskeya F.Sh. Toxygen Microbiota Of Nutritious Plant Materials.//Anas Microbiology Institutions Scientific Works. Baku: "Elm" Publication, 2011, C.9, №1, S. 270-273.
- [4] Alizada K.S., Maharramova M. H., Gurbanova A.A., Gahramanova F. Kh., Majnunova 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
- [5] Alizada K.S., Gahramanova F.Kh., Majnunova A.A., Keyserukhskeya F.Sh. Micological Evaluation Of Some Plants Used For Nutritious Purposes./ Ecology And Protection Of Life Activity " VII International Scientific Conference 2012, S. 83.
- [6] 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.
- [7] 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.
- [8] 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
- [9] 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
- [10] Hygienic Requirements For Safety And Nutritious Value Of Food Products. Sanitary-Epidemiological Rules And Normative. Baku, 2010, 116c.
- [11] [Http://Www.State.Gov.Az/Source/Trade/](http://Www.State.Gov.Az/Source/Trade/)
- [12] [Http://Www.Worldwatch.Org/System/Files/Esw020.Pdf](http://Www.Worldwatch.Org/System/Files/Esw020.Pdf).



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

Nusret Babayev ¹

¹ *PhD. Candidate, Azerbaijan State Economic University, Faculty: Finance and Accounting, Department: Finance and Financial Institutions*

Yashar Damirov ²

² *PhD. Candidate, Azerbaijan State Economic University, Faculty: Economics (Russian speaking), Department: Russian School of Economics (in UNEC), Corresponding Author, Email: yasha_ua@hotmail.com*

Rauf Qusxani ³

³ *doc. Ph Candidate, Azerbaijan State Economic University, Faculty: Economics (Russian speaking), Department: Russian School of Economics (in UNEC)*

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

- [1] 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.
- [2] A.G.Granberg. Bases of regional economy. Moscow: State University Higher School of Economics, 2003, 495 pp., P. 350
- [3] Governing Regional Development Policy: The use of performance indicators. Paris: OECD Publishing, 2007, 198 p, p.34.
- [4] 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.
- [5] Markusen A. (1987) Regions: The Economics and Politics of Territory, Rowman and Allenheld, Totowa, NJ.
- [6] OECD Rural Policy Reviews: Germany. Paris: OECD Publishing, 2007, 200 p, p.31.
- [7] Promoting Growth in All Regions. Lessons from across the OECD. OECD Publishing. 282 p. p.19-20
- [8] Regional development: the experience of Russia and the European Union. / A.G. Granberg, Moscow: ZAO "Izd-vo" Economics ", 2000, 435p.
- [9] Regional Development Policies in OECD Countries. Paris:OECD Publishing, 2010, 388 p.
- [10] Regional policy of the EU countries. IMEMO RAS, Moscow: 2009, 230 p. from. 14.
- [11] STORPER M. (1997) The Regional World. Territorial Development in a Global Economy. Guilford, London.
- [12] The New Rural Paradigm: Policies and Governance. Paris: OECD Publishing, 2006,168 p, p.13.
- [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



Analyzing of Consumption Styles in Sustainable Competition: The Case of Azerbaijan

Oqtay Qulu QULIYEV¹

¹Azerbaijan State University of Economics (UNEC), Economics and Management Department, Email: oqtay1982@gmail.com

Matanat Rafael MAMMADOVA²

²Azerbaijan State University of Economics (UNEC), Economics and Management Department, Email: salmanova_m88@gmail.com

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 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. Bocoock (2009) states that what is desired in postmodern consumption is not the actual products consumed. According to Bocoock, “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 (Ekber & Ahmadov, 2017)

Research

In the aforementioned study, questionnaire method was applied. 536 consumers were surveyed in Baku, the capital of Azerbaijan. Data were analyzed by SPSS program.

Factor Analysis

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	Demographic 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. These 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	Demographic 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 products they use. They also consume exotic products and foods as a reflection of their personality.	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 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.

References

- [1] Acar, Ali, (2000), "Conspicuous Consumption", Economic and Technical Journal Standard, No: 457, pp. 38-50
- [2] 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
- [3] Azizağaoğlu, Arzu, (2010), "Symbolic Consumption: Effects of Symbolic Properties of Products on Purchasing Behavior ", PhD Thesis, Sakarya University
- [4] Babacan, Muazzez, (2001), "Hedonic Consumption and Reflection on Special Occasions ", 6. National Marketing Congress, pp. 1-12
- [5] Batı, Uğur, (2010), "Unplanned Purchasing Behavior of Consumers", (November 2010)
- [6] Bocoock, Robert, (2009), Consumption, Dost Press, (Translation: İrem Kutluk), Ankara, July 2009
- [7] 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
- [8] Ekber, Ş., & Ahmadov, F. (2017). Pazar Odaklılık Yaklaşımları: Bir Literatür İncelemesi. Sosyal Bilimler Dergisi/Journal of Social Sciences, 1(1).
- [9] Heffetz, Ori, (2004), Conspicuous Consumption and the Visibility of Consumer Expenditures, PhD Thesis, Princeton University
- [10] 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
- [11] Odabaşı, Yavuz, Barış, Gülfidan, (2004), Consumer Behavior, MediaCat Press, İstanbul, October 2004
- [12] 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
- [13] 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
- [14] Veblen, Thorstein, (2005), The Theory of Leisure Class, Babil Press, (Translation: Zeynep Gültekin and Cumhuriyet Atay), İstanbul, 2005



Inclusive Education is the Basis for Universalizing of Higher Education

Sevinj MAHSIMOVA¹

¹ *Coordinator of Inclusive education center of Azerbaijan State University of Economics (UNEC)
AZ1001, Istiqlaliyyat str., 6, Baku, Azerbaijan
Email: sevinc.mehsimova@gmail.com*

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: 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 improvement 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).

Rapidly changing technologies are transforming the nature of the educational process that makes universities to respond quickly to new demands of the modern society and the inclusion is an important factor. Traditional universities are faced with new issues, and a whole range of new challenges and opportunities opened up for teachers.



The purpose of this article is research and improves teaching methods and analyze of ways to entirely inclusion. This comprehensive education will attract an increasing number of young people with disabilities involved to high education.

The First Steps of Implementing Inclusion into Educational Process

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.

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 influenced 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 an 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).

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 an extremely increasing 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 the 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 the 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 that 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 the educational process.

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.

Analyze the Development of Inclusive Education Methods 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 choice.
- 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 inclusion 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. Flexibility 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).

Applying Innovations for Inclusive Education in High Institutions

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).

I would like to note, that our university teaching staff have been transforming all educational materials into accessible forms. For example, all lectures and textbooks are converted into audio formats. Some charts and diagrams are transformed into tangible graphs and charts. The UNEC Library 24/7, which operates around the clock, is constantly expanding the range of accessible teaching and learning resources.

Conclusions

Inclusive teaching is an interesting, creative, promising direction of pedagogical process. In this process are used various teaching forms and tools. 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.

In my opinion, the formation of a highly developed society depends on the level of opportunities for sustainable participation of young people with disabilities in social life and their full participation in all spheres of activity, especially, in high education, because it provide them prosperous life. I think, the research towards the development and improvement of inclusive higher education should continue to scientists of all branches of science.

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/ncaaccesstothegeneralcurriculum> .
- 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. Availble 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 .

*5th INTERNATIONAL CONFERENCE ON LIFELONG EDUCATION AND LEADERSHIP FOR ALL
ICLEL 2019 // July 09-11, 2019/ Azerbaijan State University of Economics-Baku/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.



Assessment of CES Function Parameters in Oil-rich CIS Countries

Yadulla Hasanli¹

*1*Director of the Scientific-Research Institute of Economic Studies, UNEC
Head of laboratory of Modeling of social and economic processes, Institute of Control Systems, ANAS

Turac Musayev²

*2*Researcher, Department of Mathematical software of economical researches, Institute of Economics, ANAS

Gunay Rahimli³

*3*PhD student, UNEC

Simrah Ismayilova⁴

4 Corresponding Author, Researcher, Department of Mathematical software of economical researches, Institute of Economics, ANAS Researcher, Laboratory of Modeling of social and economic processes, Institute of Control Systems, ANAS, Email: simrah.23@gmail.com

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 (s) 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:



$$Y = A_0 \cdot (\delta K^{-\rho} + (1 - \delta)L^{-\rho})^{-\frac{1}{\rho}}$$

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:

$$Y = A_0 \cdot e^{\lambda t} (\delta K^{-\rho} + (1 - \delta)L^{-\rho})^{-\frac{1}{\rho}}$$

where e is the Euler number (irrational number); t is the time indicator.

$$\sigma = \frac{1}{1 + \rho}$$

It is necessary to calculate the following parameters to evaluate this function. A_0 is a scale coefficient () 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. ρ is distribution coefficient, λ is the degree of homogeneity (, λ is the parameter characterizing the level of technical progress, σ is parameter () to calculate the coefficient of substitution elasticity (σ).

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 Haybreg 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 (total)
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:

$$Y = 1,0338e^{0,165t} (0,8107K^{-2,638759} + 0,1893L^{-2,638759})^{-0,378966}$$

$$R2 = 0,954974 \quad DW=1,265828 \quad \sigma=0,274819$$



Table 2. Statistics for Russia

Years	GDP (current million USD)	Gross fixed capital (current million USD)	Labor force (total)
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 31,473.36	8080705
2007	104,849.89	35,817.30	8226662
2008	133,441.61	32,046.27	8382549
2009	115,308.66	36,015.99	8573022
2010	148,047.35	41,346.71	8719779
2011	192,626.51	47,430.24	8806519
2012	207,998.57	51,780.82	8887384
2013	236,634.55	47,728.14	8961806
2014	221,415.57	42,190.88	9050189
2015	184,388.43	31,188.62	9109811
2016	137,278.32	35,651.48	9172043
2017	162,886.87		9222689

Source: World Bank data

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

- [1] 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.
- [2] Auty, R. (2001). *Resource Abundance and Economic Development*. Oxford: Oxford University Press.
- [3] 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.
- [4] Björck, A. (1996). *Numerical methods for least squares problems*. Philadelphia: SIAM. Retrieved from ISBN 0-89871-360-9
- [5] 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>
- [6] Desai, P. (1976). The production function and technical change in Postwar Soviet Industry: A reexamination. *The American Economic Review*, 66(3), pp. 372-381.
- [7] Ferguson, C. (1965). Time-series production functions and technological progress in American manufacturing industry. *Journal of Political Economy*, 73(2), pp. 135-147.
- [8] Gylfason, T. (2001). Natural Resources, Education and Economic Development. *European Economic Review*, 847-859. doi:10.1016/S0014-2921(01)00127-1
- [9] Hasanli, Y. & Hasanov, R. (2002). *Application of Mathematical Methods in Economic Research*. Baku: Elm.
- [10] 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.
- [11] 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.
- [12] Imanov, G. Hasanli, Y. (2001). *Socio-economic models of Azerbaijan economy. Macroeconomic analysis*. Baku, Azerbaijan: Elm.
- [13] Kemfert, C. (1998). Estimated substitution elasticities of a nested CES production function approach for Germany. *Energy Economics*, 20(3), pp. 249-264.
- [14] Kmenta, J. (1967). On the estimation of the CES production function. *International Economic Review*, 8, pp. 180-189.



- [15] Kurz M. & Manne A.S. (1963). Engineering estimates of capital-labor in metal machining. *The American Economic Review*, 53(4), pp. 662-681.
- [16] 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
- [17] Maddala, G. &. (1967). Estimation of returns to scale and the elasticity of substitution. *Journal of the Econometric Society*, 35(3/4), pp. 419-423.
- [18] 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
- [19] 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
- [20] Miller, E. (2008, June). An Assessment of CES and Cobb-Douglas Production Functions. Congressional Budget Office.
- [21] Romer, P. M. (1990). Endogenous Technological Change. *Journal of Political Economy*, 71-102.
- [22] Sato, R. (1970). The estimation of biased technical progress and the production function. *International Economic Review*, 11(2), pp. 179-208.
- [23] 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.
- [24] Zarembka, P. (1970). On the empirical relevance of the CES production function. *The Review of Economics and statistics*, 52(1), pp. 47-53.
- [25] Кубанива, М. Табата, М. Табата, С. Хасэбэ, Ю. (1991). Математическая экономика на персональном компьютере: пер. с японского. (М. Кубанива, Ред.) Москва: Финансы и статистика.



Statistical Evaluation of the Impact of Social and Economic Phenomena on Birth Indicators

Vusala Teymurova¹

*¹PhD, Associate Professor of the Department of Statistics and Econometrics, Azerbaijan State University of Economics (UNEC)-6 Istiglaliyyat Street, Baku, Azerbaijan, AZ1001;
Email: vusala_teymurova@unec.edu.az*

Bahruz Samadov²

*²Head teacher of the Department of Statistics and Econometrics, Azerbaijan State University of Economics (UNEC)-6 Istiglaliyyat Street, Baku, Azerbaijan, AZ1001;
Email: bahruz_samadov@unec.edu.az*

Khalida Muradova³

*³PhD, teacher of the Department of Statistics and Econometrics, Azerbaijan State University of Economics (UNEC)-6 Istiglaliyyat Street, Baku, Azerbaijan, AZ1001;
Email: xali-77@mail.ru*

Samira Abdullayeva⁴

*⁴ PhD, teacher of the Department of Statistics and Econometrics, Azerbaijan State University of Economics (UNEC)-6 Istiglaliyyat Street, Baku, Azerbaijan, AZ1001;
Email: sabdullayeva85@mail.ru*

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

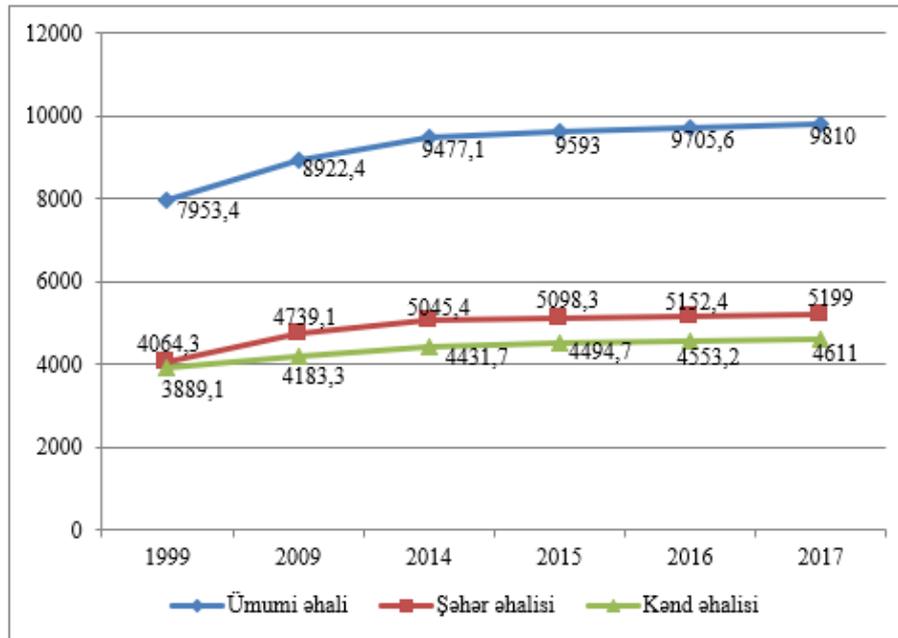
One of the important conditions for the socio-economic development in Azerbaijan in modern era is the statistical evaluation of the demographic situation of the population and the trends in its development. It is known that a perfect analysis of the demographic processes is possible with the availability 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.

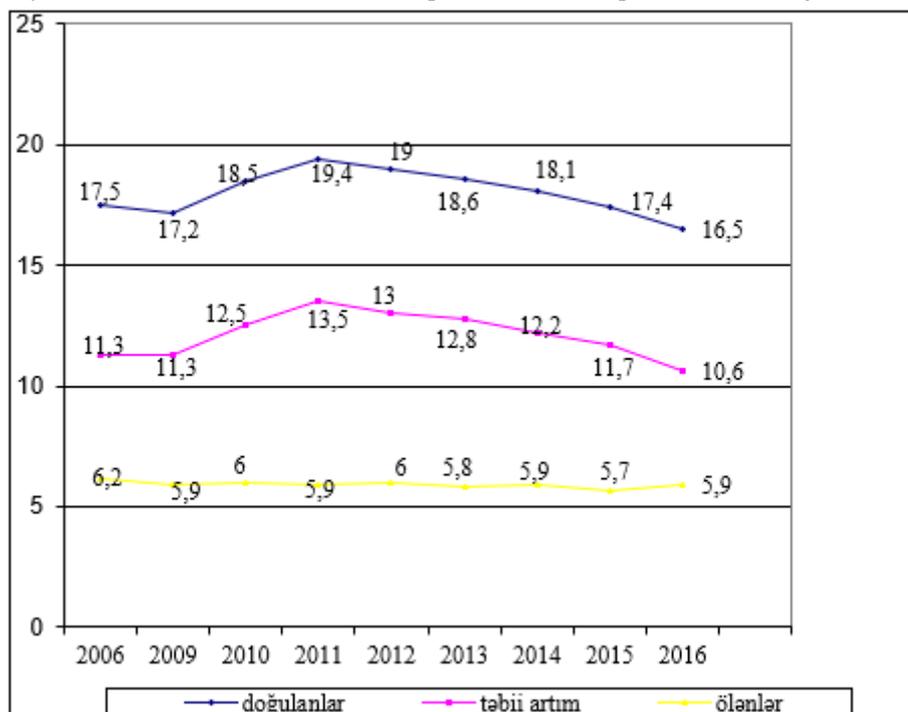
In order to analyze the birth processes in Azerbaijan, it is important to first of all to clarify the current state and nature of the population's natural movement. The determination of overall socio-demographic characteristic of the natural growth of population will allow for a thorough investigation 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 H₀ 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 H₀ 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, H₀ 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:

H₀: 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 Durbin-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.