# Rural Environment. Education. Personality. (REEP)

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Latvia University of Life Sciences and Technologies
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The data bases select the articles from the Proceedings for including them in their data bases after additional individual qualitative estimation.

## Scientific committee

Every article was subjected to the review and edition of the Scientific Committee, which members are professors from 9 countries - Czech Republic, Estonia, Finland, Germany, Ireland, Latvia, Lithuania, Poland, United Kingdom. All reviewers were anonymous for the authors of the articles.



## Organizing committee

# Content

## EDUCATION FOR GETTING COMPETENCE

## LIFE QUALITY IN THE CONTEXT OF HOME ENVIRONMENT, HOME ECONOMICS, HOUSEHOLD, CONSUMER SCIENCE AND VISUAL ART

## DEVELOPMENT OF PROFESSIONAL EDUCATION AND CAREER

# Foreword

The Institute of Education and Home Economics of the Faculty of Engineering, Latvia University of Life Sciences and Technologies organizes annual international scientific conference **Rural Environment. Education. Personality (REEP-2019).** Authors of the articles are from 8 countries - Czech Republic, Estonia, Hungary, Kazakhstan, Latvia, Lithuania, Poland, Russia. Totally 35 educational establishments are represented in the Proceedings.

**Aim of the Conference**: to find out solutions, exchange ideas or highlight topical problems on the 21st century education tendencies in school, university and adult education, competence, life quality in home environment, design and crafts, career development and vocational education.

Thematic groups of the articles:

- problems and solutions for nowadays school, university and adult education;
- education for getting competence;
- life quality in the context of home environment, home economics;
- development of professional education and career.

The Conference focuses on perspectives of education and training systems considering changes in rural social environment imposed by changes in a society both in global and local scope.

The first section **Problems and solutions for nowadays school, university and adult education** includes researches in the fields of quality of education, use of information technologies, cross-cultural issues, sustainable development and psychology.

Articles covering conducted researches in the field of **quality of education** talk about education reform, usage of teaching aids and some aspects of education management. The qualitative survey in the article “A Reflection of the Quality of Education in the Use of Teaching Aids and the Importance of Lifelong Learning” gives a look at the resulting categories of mistakes affecting the quality of education that some teachers make during their lessons when integrating teaching aids. Topicality of the research in the article “Teachers during Education Reforms: Challenges and Opportunities” is connected with global and local processes and education policy in the society and need for education reform on competence-based content development. The authors concluded that the teachers appreciate highly their professionality, takes responsibility for the work within their subjects, but dissociates themselves from the responsibility for the whole teaching and learning process in the school, does not stand out with autonomy to make decisions independently. In some countries, sustained growth in international student recruitment is vital for compensating for a decline in the number of domestic students. Authors of the article “Marketing in Higher Education in the Agenda of Increasing International Enrolment” emphasize a growing need to develop and use new effective marketing strategies in the higher education in the agenda of recruiting diverse student population and attracting best talents. The implementation of leadership ideas in Lithuanian educational institutions are discussed in the article “The Influence of New Public Governance on the Development of Distributed Leadership in Educational Institutions”. The study “Role of School Principals in High Achievement of Students” analysed the role of the principal in organization the school’s work to make decisions autonomously and thus optimize school’s work and how the activities of the principal facilitate high achievement among students. Getting to know the article “Pedagogical Training in the Preparation of Prospective Teachers of Professional Economic Subjects”, the researchers are inclined to believe that it is appropriate to include different forms of training in the preparation of prospective teachers, bringing together theory and practice, but it is important to remember that no simulations will replace the direct experience in real practice, i.e. in training schools.

The articles highlighting the importance of **using information technology in education** are “The Use of Information and Communication Technologies (ICT) of Pedagogical Specialities Students in the Study Process” and “Reasoning the Implementation of Massive Open Online Courses in Higher Education Institutions”. The use of ICT helps better involvement in the study process, makes students more independent during study process, gives them possibilities to get more new information and better communicate during study process, the use of ICT makes studies more exciting, it opens up opportunities for on-line training and gives positive impact on the acquisition of the study content.

Articles covering conducted researches in the field **cross-cultural issues are “**Modern Educational Domain: Cross-cultural Issues in Teaching Foreign Languages” and “Prospective Hospitality Business Managers’ Sociocultural Competence within the Context of Social and Cultural Environments”. Authors concluded that natural bilingual or multilingual teachers are far more prone to demonstrate cross-cultural flexibility in a classroom, as they are highly disposed to demonstrate shiftability, adaptability, responsiveness and sensitivity within the interaction framework implying cultural and linguistic diversity of the students. According to the authors one of the conceptual approaches in the research is *ecological approach* within the study process. Ecological paradigm in education actualizes the significance of managers’ interaction with study environment within the development of their competitiveness, where study environment is formed by university education and companies as the environment of professional activities.

There are several articles covered the thematic group on **sustainable development.** Researchers of the article “The Role of Relationships in Teaching Content Important for Sustainable Development” works with students to understand the term "violence towards the environment" what means: massive deforestation, littering the environment, destruction of biodiversity, disturbance of natural balance, the use of which personifies the natural environment, gives weight to the phenomenon and fills the issue with emotions. The conducted research has shown that the awareness of the majority of the students in this field is high and it is a good start for the targeted and effective action in the future for the benefit of all humanity. Similar study is described in the article “The Improvement of Eco-school Students’ Environmental Awareness in the Context of Education for Sustainable Development”. Eco-school is one of the ways of “greening” students’ thinking.

The analysis done in the article “Professionalism as Viewed by Urban and Rural Teachers in Latvia and Russia: Analysis of Structural Components of Teacher Professional Identity” shows that compared with urban colleagues rural teachers have closer contacts with students and are more involved in the educational process. At the same time, it is more difficult for them to present their achievements and experience to the teaching community; besides, they have problems with research activities.

The authors have analysed the peculiarities of males and females in the context of androgyny theory in the article “Critical Evaluation of Personality Traits and Behavioural Gender Peculiarities of Latvian Males and Females”. As a result of constructing models of male and female social behaviour, it was concluded that a values system determined by societal and cultural conditioning and accepted social norms is of a crucial importance, the authors have also explored such gender traits as domination, submission and altruism.

The authors have analysed media literacy as the ability to access, analyse, evaluate and communicate information in a variety of forms as well as the ability of individuals to access and understand information through different media tools and platforms, such as television, radio, print media, the Internet and digital technology in the article “Towards Media Literacy in the Education Curriculum: Experience of Latvia”. This article highlights need for more attention to give to the development of the skills of evaluating the credibility of the found information.

There is one article in the **field of psychology** “Students’ Evaluations about Prosocial and Violent Behaviour and Attitudes” where author’s study addressed to frequency of prosocial and violent behaviour in peer and student-teacher relationships.

The articles in the section **Education for getting competence** deal with situation in tertiary, school and adult education.

The first of the six articles revealing study results in **tertiary education** outlines the analysis how the course of Intercultural Communication (ICC) fosters students’ skills and competence at Moscow State

Institute of International Relations of Russia and Peoples' Friendship University of Russia. The assessments highlighted the positive effects of a university course of intercultural communication on fostering ICC.

The investigation from Lomonosov Moscow State University, Russia reveals motivating factors of students in learning oriental and European languages. The results of the survey suggest that intrinsic motivation is indeed the prevalent form of motivation for tertiary students in both Oriental/African and West European language, though the role of the teacher and relevant interesting materials and topics for discussion help foster the intrinsic motivation.

Two articles are devoted to the development of professional English language competence in business administration studies at higher school. The results of the empirical research conducted by the author confirm that by implementation of the study program using the case study method and transformative learning principles, it is possible to promote professional English language competence of business administration students as it can enable the learners to face complex demands of their future career.

Examination of the role of critical thinking and the possibilities of economics-related disciplines in enhancing university students' critical thinking of Russia is reflected in the fifth article dedicated to university education. The findings support the hypothesis to encourage students' critical thinking not only special critical thinking courses are important but other disciplines as well. To stimulate students' critical thinking, more attention should be paid to active teaching methods such as discussions, case studies, simulations, projects, team-work, Internet based assignments and problem solving.

The article dedicated to International Student Scientific Mathematics Olympiad gives insight into contribution to the development of students' mathematical and social competence. It describes the methodology of the International Student Scientific Mathematics Olympiad organization, summarizes the experience and analyses the results of two largest technical universities in Latvia and among so-called Agricultural Universities in Baltic States. Olympiad is focused on application of mathematics to real-life situations.

Three articles are dedicated to **school education** and the first of them examines the problems of mathematics at secondary school in Latvia. During this research it proved to be wrong to consider that solving past exams is a factor with positive interdependence with exam score, because no correlation was found.

The attitudes of Estonian craft teachers towards the crafts syllabus as well as a situation at schools in relation to crafts education is outlined in the second article. The results indicated that the teachers complete the crafts syllabus only selectively and partially, mostly according to their own beliefs and the possibilities offered by the school. When carrying out the learning activities in crafts lessons, the teachers mainly consider the interests of the students and attempt to support the creation of their learning motivation and positive attitudes towards the subject.

The third article analyses the factors affecting the acquisition of metallophone in primary school music lessons in two general education schools located in different Latvian cities. The study identified four key factors (study dimensions) determining the acquisition of metallophone: initiative, self-confidence, self-control, and achievement orientation. The study found that none of the factors that affect the acquisition of metallophone was at a low level. The students' achievement orientation was at a high level.

In relation to **adult education** the aim of the first article was to assess the activities of the Krasnik Land local action groups (LAG) in Poland in terms of effectiveness of organized trainings, increasing the competences of local entrepreneurs in areas where LAG operates. The author concludes that training organized by the LAG is very popular among residents running businesses in the analysed nine municipalities.

The second article in adult education is dedicated to a mediator's work improvement in Latvia. The authors stress that dialogue functions, components and barriers are three groups of factors every person has to consider in the process of mediation and learning to be in dialogical relations should be organised before starting the actual dialogue with other person to solve the conflict.

Articles on **life quality in the context of home environment, home economics** describe the topics on life quality by Latvian seniors nowadays, nutritional habits of prospective teachers, paternal involvement in the discourse of the educational potential of fatherhood and development of modular educational programs in preparation future specialists on costume.

An increase in the average life expectancy and increase the number of elderly but still able-to-work, people is the reality of nowadays life. Study finds that although a popular opinion among seniors is that the quality of life depends on the person himself, on his integrity, on his attitude towards other people and life in general, of his ability to choose the right job for himself and work hard, as well as of his care for his health and willingness to socialize, the restrictive aspects on quality of life are largely observed in external factors. Besides health and financial problems seniors mention an irresolvable existential problem, namely, "lost" time.

Healthy nutrition is a particularly topical issue in modern society as it is one of the key elements of a healthy lifestyle which determines a person's well-being. One of the tasks established in the European Region Health Policy "Health for All in the 21st Century" is to promote habits of healthy nutrition. The results of the prospective teachers survey show that studies are associated with students' involvement in numerous activities, mental and physical activity, and the assumed responsibility for purchasing food and cooking has a negative impact on students' nutritional habits: frequently young people do not pay sufficient attention to their health, do not have enough time to eat, do not follow dietary regime.

Having determined the direct significant correlations between the competence of fathers and the frequency of their educational actions, the researcher conclude that the need to enhance the participation of fathers by creating the community of fathers, which will maintain the current and necessary level of motivation to participate in the system of father-child interaction.

Researchers from Kazakhstan conducted the study on effectiveness of the implementation of the Methodics on the basis of Modular education programme analysing the indicators of the Criteria for the formation of Professional competence of future specialists on costume. Researchers recommend to organize the pedagogical interaction of students, teachers and employers about the reform of institutional education, to create flexible conditions for improvement of education content in accordance with the requirements of the labor market.

The articles discussed in the section **Development of professional education and career** reveal the following topics: teachers' professional development, job satisfaction and personal life balance, problems that pedagogical staff face when acquiring qualifications, a multi-aspect view on the purposefulness of university students as prospective teachers, informal professional development of higher education teachers, leaders' career development, value identification methods in career counselling, dietary habits of military personnel, career education in the study process and usage of computer based tests in the training of health care specialists.

Successful professional self-realization of teachers requires job satisfaction and continuous improvement of their competences. The researchers came to the conclusion that the most effective means to maintain balance between the teacher's personal well-being and job satisfaction is the opportunity for flexible working time, quality workplace and duration of working hours (part-time work). Teacher professional learning is a complex process, and this involves many formal and informal processes, mechanisms, actions, and elements, where formal and informal types of learning seem to be complementary as formal professional development activities create a need and provide a context for the use of new knowledge, and informal activities complete the gaps of on-going experience. Researchers admit that it is not easy to identify further education directions and to find the balance between individual and organizational learning needs and align those with policy priorities; costs of teachers' professional development, collaboration and networking as well as contents of the professional development activities were mentioned as the most important criteria for further education. Research on the external aspects of in-service teacher training leads to the conclusion that high time requirements and low employers´ support are the main problems that teaching staff face.

Securing the quality and competitiveness of education, the most topical issues in contemporary society, can be solved by competent and competitive teachers, therefore researchers pay close attention to the purposefulness of university students – prospective teachers. Results show that prospective teachers need more support to create knowledge on promoting purposefulness to be able to choose their life goals and be aware of the possibilities to achieve them. Career education and counselling can be an important resource for both prospective teachers and other professionals. A study conducted at the University of

Latvia confirms that career education has to be delivered as a set of planned actions, integrated in the study process and closely connected with the development of students' professional skills and the formation of sustainable awareness. Career support should be linked to the value system of the beneficiaries, researchers have found that the most important values for the youth aged 17-30 are as follows: stability, satisfaction, security, freedom and money. The developing, well-organized study program also includes regular use of computer-based tests that provide significant support for data processing and the preparation of the final thesis.

Several notable recommendations have been developed by conducting surveys of leaders and military personnel. The potential of organization to create favourable working environment is based on leader's awareness about sustainability. Researchers report that leaders lack sufficient knowledge about sustainability and influence on their career development and offer scientifically justified recommendations. The results of the military personnel survey show that cadets` general information level and understanding about importance of food consumption need to be improved. Researchers suggest to organise the lectures course about the main principles of healthy nutrition adapted to physical load and to provide cadets with additional information about balanced diet.

Gratitude to plenary speakers I. Dukulis the dean of the Faculty of Engineering, professor K. Turkki from Helsinki University, she is also representative of International Federation of Home Economics, professor L. Raitskaya from MGIMO University in Moscow, professor S. Bailey from London Metropolitan University, professor J. Porozovs from University of Latvia on their contribution to the conference.

Authors of the articles – professors, lecturers, teachers, master and doctoral students have made a significant contribution to research at international level and in the preparation of this proceedings and shared their experiences on topical issues of conference topics.

Many thanks to the chiefs of all conference sections B. Briede, R. Birzina, K. Nemejc, I. Kokle-Narbuta, J. Pavulens, for organization and management of section effective work and for given contribution for preparation the descriptions for the foreword.

I would like to say many thanks to all authors, reviewers and organizers for their contribution to our conference and preparing the proceedings of scientific articles.

On behalf of the Conference Organizing Committee
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# Problems and solutions for nowadays school, university and adult education

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# Towards Media Literacy in the Education Curriculum: Experience of Latvia

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**Abstract**: Media literacy is important for life in the changing world. Media literacy is the ability to access, analyse, evaluate and communicate information in a variety of forms as well as the ability of individuals to access and understand information through different media tools and platforms, such as television, radio, print media, the Internet and digital technology. The aim of the paper is to analyse the planning of developing the media literacy in the basic education curriculum in Latvia. The study, using the document analysis, has selected the basic education curricula in the new education content project Competence-based approach in the teaching/learning content School 2030 in the following areas: Technologies, Social and civic area, Sciences area. Such criteria as the skill to find the information in the digital environment; the skills to analyse the obtained information; the skill to evaluate the credibility of the information were chosen in the research aspect of developing the media literacy. The study concludes that the skill to find information in different sources and the skill to analyse the found information are purposefully developed in the expected learning outcomes. The development of the skills of evaluating the credibility of the found information, however, needs more attention.

**Keywords**: basic education, curriculum, media literacy.

## Introduction

New economic realities and rapid shifts in labour markets are fundamentally changing education systems around the world; and now, access to high quality education institutions at all levels is globalizing as well (Jolls, 2014). This change movement toward being a global information economy and having education systems to match are persistent and demand attention, experimentation, and investment (Jolls, 2015).

As a consequence of the change in the meaning attributed to literacy, the competencies that literate individuals need to possess are being redefined. The competencies of literate people nowadays include the ability of analysing critically messages of different types, such as texts, images, and audio files, videos in multidirectional and multidimensional information and communication channels, and creating texts in different forms. Moreover, in this new period, the problem of accessing information has been dissolved thanks to the opportunities offered by ICTs. In contrast, avoidance skills to abstain from information sources (Bawden, Robinson, 2009) that are constructed, harmful and unreal (Potter, 2008) are regarded among the literacy skills. Today, information and knowledge are often considered to be the most strategically important resources, and learning - the most strategically important capability, for any individual, community, or the entire nation. Despite the fact that access to information and knowledge has increased during the last decade due to the higher levels of basic literacy in many countries around the world, significant challenges and obstacles still remain. It is still not obvious how to create a favourable environment for learning, or how to nurture the capabilities of citizens (Global Media and…, 2013). An individual today needs to possess the following competencies: recognizing and expressing facts, making use of texts of different types to express one's emotions and thoughts, reflecting on the obtained knowledge and relating it to one's own behaviours, knowing the form of texts shared in different sources and re-creating and using them, possessing up-to-date knowledge and skills, communicating effectively, building one's capacity to be able to provide cultural and social contribution, expressing oneself through using one's knowledge and skills in social and cultural field (Kellner, Share, 2005; Ayres, Langone, Douglas, 2009; Bahadin, Cahit, 2017).

Media literacy is understood as the ability to access, analyse, evaluate and communicate messages in a variety of forms (Aufderheide, 1993; Bahadin, Cahit, 2017) as well as the ability of individuals to access and understand information through different means, such as television, radio, print media, the Internet and digital technology (Silver, 2009). The core of media literacy includes a wider variety of aims, goals and intentions, including the ability to create messages, reflect on media influence and consider the social responsibilities of being an effective communicator, and use the power of information and communication to take appropriate forms of personal, social and political action (Hobbs, 2010; Hobbs, Tuzel, 2017). Thus, media literacy includes four main skills to be an effective media literate - access, analyse, evaluate and communicate (Aufderheide, 1993; Hobbs, 2001; Livingstone, 2003; Jolls, 2008; Silver, 2009; Schmidt, 2013; Silverblatt, 2014), as well as using media tools and platforms effectively (Potter, 2009; Bahadin, Cahit, 2017). Media constitutes the whole range of modern communications - television, cinema, video, radio, Internet, music, magazines, and games - and media texts are the programs, films, images, websites, and more consumed by mass audiences (Buckingham, 2003; Harshman, 2017). Media literacy can be regarded as an umbrella term independent of the variables such as media tools at use, technology and so on. Besides, the unprecedented developments and increasing variety in ICT have had a significant role in the emergence of new forms of literacy such as new media literacy and social media literacy (Walsh, 2010).

As media literacy is understood as the right of all citizens (Area, 2012; Fedorov, Levitskaya, Camarero, 2016), then efforts should be made conducive to digital inclusion to ensure access to new technologies, implementing and promoting standards and accessibility guidelines through the implementation of training courses and media education (Garcia-Murillo, MacInnes, 2002). This assumption is based on the curriculum that is able to evaluate the use of technology and knowledge of the media, supported by psychoeducational theories that encourage young people and the general public to use them positively. It is also based on the personal contribution of those who can improve society through their moral values (Camarero, Cuadrado, Herrero-Diz, 2015; Fedorov, Levitskaya, Camarero, 2016).

The framework of the curriculum of media literacy education is based on the following approaches: Enhancing consumer awareness, Critical thinking, Considering the role of citizenship, Ontology, Value, Semiotic, Cultural studies, Synthetic creative, Cross disciplinary approaches (Andersen, Duncan, Pungente, 1999). Media literacy has many benefits in the teaching /learning process. For instance, media literacy engages students - bringing the world of media into the classroom connects learning with "real life" and validates their media culture as a rich environment for learning and gives students and teachers alike a common approach to critical thinking that, when internalized, becomes the second nature for life. It provides an opportunity for integrating all subject areas, increases the ability and proficiency of students to communicate (express) and disseminate their thoughts and ideas in a wide (and growing) range of print and electronic media forms - and even international venues (Jolls, 2015).

As it has been concluded in the UNESCO study on media literacy, then only fifty percent of 9-12-year-olds and adolescents (13-16 years) – eighty percent think they can compare different internet websites and websites to understand whether the information in them is true. Some children and adolescents lack the knowledge and skills necessary to use, create and share various types of information safely and skilfully (Petijums par 9…, 2017), thus there exists a challenge for the Curriculum developers to give the students an opportunity to understand and use the Internet or the possibilities offered by ICT in the implementation of a meaningful teaching/learning process.

The aim of the paper is to analyse the planning of the development of media literacy in the basic education curriculum in the Latvia.

## Methodology

The study, using the document analysis, has selected the basic education curricula in the new education content project Competence-based approach in the teaching/learning content School 2030 (Skola 2030, 2017) in the following areas: Technologies, Social and civic area, as well as the Sciences area, which in the theoretical study were noted as being the most important in the development of media literacy. Such criteria as the skill to find the information in the digital environment; the skills to analyse the obtained information; the skill to evaluate the credibility of the information were used in the theoretical study.

## Results and Discussions

As the content of the **Social and civic area** is closely connected with each individual’s abilities to understand the society and the processes happening in it as well as the skill to join and participate in it therefore such crucial media literacy skills as the skill to access, analyse, evaluate and communicate should be definitely emphasised.

For instance, when acquiring social sciences and history in basic school, the student forms his/her historical and civic awareness as well as stable social habits in communication and interaction with peers. The student develops and explains the personal "I" observing and participating in the social environment of the local community; make decisions that are significant to oneself and others in the everyday situations; explores economic, political and social problems that are important for Latvia as a state and the society in the context of present and the past; participates in the social processes and evaluates the consequences of one's actions (Skola 2030, 2017).

Table 1

**Planned learning outcomes in the Social and civic content area**

| **Social and civic content area** | | | |
|---|---|---|---|
| | **The skill to find information in the digital environment** | **The skill to analyse the obtained information** | **The skill to evaluate the credibility of the information** |
| **Outcomes to be reached finishing Grade 3** | **Obtains information** from diverse sources of information about social groups that are represented in the closest community (family, class, school, church parish, etc.) in order to conclude to which social groups the student belongs | | |
| **Outcomes to be reached finishing Grade 6** | **Searches for examples in mass media** (newspapers, Internet news sites, etc.) and literature about people's actions in different everyday situations.<br>**Searches for examples in the information sources** about Latvia's relations with neighbouring countries...<br>**Searches for examples in the information sources** about the expression of sponsoring and charity in the society nowadays and in the history... | **Analysing the information available** in the home page of the Enterprise and municipality register finds out which enterprises and in which spheres are functioning in the local municipality. | |
| | **Obtains information** from mass media about personalities the student would like to resemble **in order to conclude** which character qualities, knowledge and skills it possesses and substantiates his/her choice.<br>**Obtains and analyses the examples discussed in mass media…** | | |
| **Outcomes to be reached finishing Grade 9** | **Using different sources of information, makes out** common and different features in the countryside and towns...<br>**Explores job vacancies, experts' opinions a.o. sources in order to conclude** which knowledge and skills are needed in the labour market.<br>**Using different mass media, evaluates** the impact of transformations caused by technologies, cultural traditions and social status on the development of both Latvia and the whole humankind…<br>**Compares the information found in different mass media…**<br>**Seeks examples in virtual media, …**<br>**Using different sources of information** (press, library, memoirs, archive, etc.), **plans** and makes inquiries about the cultural and historical legacy of the region in order to prepare informative materials, popularize and organize visits to the memorial sites and to preserve them improving the sense of belonging to Latvia. | | **Using different mass media, summarises and groups different opinions** about historical events of Latvia in order to draw conclusions based on facts about the causes of emerging different/contradictory opinions and the **credibility of information sources.** |

Thus, the content of Social and civic area, its acquisition should be closely linked with the media literacy in which the focus is laid both on the skill to find information in the digital environment and to analyse the information about history and issues of civic awareness, about economic, political and social issues important to the state of Latvia and its society. The skill to find information in the digital environment is mainly emphasised and acquired in the context of media literacy finishing Grades 3, 6 and 9 (Table 1). The observed tendency is that in each set of grades the acquisition of media literacy is gradually and successively broadened. For instance, finishing Grade 3 the possibility to master the skill of finding information in the digital environment is facilitated, finishing Grade 6 this skill is supplemented with the skill to analyse the obtained information and finishing Grade 9 the skill to evaluate the credibility of information is included in the content

**In Sciences** the student finds out the processes and phenomena in nature applying the inquiry skills. The link with the media literacy as the skill to find information in the digital environment, the skill to analyse the obtained information as well as the skill to evaluate the credibility of information are important in the inquiry action. It is indicated in the new teaching/learning content of the sciences area that applying the inquiry skills in different contexts the student learns to think as a scientist, acquires the experience of scientific thinking not only in the lessons but also making civilly responsible decisions in different life situations. Finishing the basic school, the student recognizes, offers and evaluates explanations about a definite set of natural phenomena; uses the inquiry skills in problem solving and performing small inquiries; analyses and evaluates data, expresses personal opinion and arguments in different ways and draws conclusions from data; acts responsibly for preserving the surrounding environment (Skola 2030, 2017).

The skill to find information in the digital environment is included in the science area in the context of media literacy. Despite the fact that the aim of the sciences area stresses the importance of analysing and evaluating the data, it is mainly understood as the evaluation of the data obtained in the inquiry process not the skill to analyse the information found in the digital environment. The skill to evaluate the credibility of information, in its turn, is envisaged for the Grades 7-9 (Table 2).

Table 2

**Planned learning outcomes in the Sciences content area**

| Sciences content area | | |
|---|---|---|
| | **The skill to find information in the digital environment** | **The skill to evaluate the credibility of the information** |
| **Outcomes to be reached finishing Grade 3** | Under the teacher's guidance **uses the information sources** (children's encyclopaedias, handbooks, media). | |
| **Outcomes to be reached finishing Grade 6** | **Uses information sources** (encyclopaedias, plans, maps, globe, instructions) applying a suitable strategy. | |
| **Outcomes to be reached finishing Grade 9** | **Uses information sources** (periodic table of chemical elements, deliquescence table, metal activity range, scale of electromagnetic waves, map of the star-lit sky, biological drawing, classification schemes of living organisms, phylogenetic trees, pyramid of gender age structure, climograph, geo-chronological scale, soil profiles, satellite pictures, aero photos, thematic maps), **applying a suitable strategy** | **Gives arguments to one's opinions using credible data from several sources,** models and topical science theories that support or overturn the explanation about natural phenomena and processes. |

**In technologies area** the student learns about different aspects how things (products) are created in the world, how they are made manually, using tools, equipment or automatically. During the basic school the student gains practical experience of the technologies' progress participating in the process of creating and implementing things (products) and digital solutions, learning to think and perform as a craftsman, designer, engineer, and programmer. Finishing the basic school, the student is able to make products that are personally needed or necessary for the community and offer digital solutions, designing and constructing, using different methods, tools and equipment, incl. digital, choosing the appropriate materials and design; has acquired practical experience of realizing a simple technological process and solving engineering and technical problems; is able to use safely, effectively and responsibly digital technologies for self-realization, communication, cooperation, participation; forms the habit to use resources purposefully and responsibly in practical work (Skola 2030, 2017).

During the initial stage of basic school students get acquainted with simple application programmes that are necessary for the acquisition of other school subjects. In Grades 4-6, students do practical projects and create simple products (things), models, objects and acquire different strategies, incl. digital, in the work with different materials. The new content in Technologies area pays special attention to digital literacy, its development and does not link it with media literacy. The skill to find information dominates in Technologies content area, but the skill to analyse the obtained information and the skill to evaluate the credibility of the found information are developed and improved minimally. For instance, the skill to find information in the digital environment dominates in the outcomes to be reached finishing Grade 3; no attention is paid to whether and how to analyse the found information and the skill to evaluate the credibility of information (Table 3).

Table 3

**Planned learning outcomes in the Technologies content area**

<table>
<tr><th colspan="4">Technologies content area</th></tr>
<tr><th></th><th>The skill to find information in the digital environment</th><th>The skill to analyse the obtained information</th><th>The skill to evaluate the credibility of the information</th></tr>
<tr><td>Outcomes to be reached finishing Grade 3</td><td>Opens the Internet site, uses hyperlinks and in search engine seeks the information according to the given keyword.<br>Copies the text and picture from the Internet site into another document giving the references.<br>Uses some main functions of the school management systems and Internet learning sites, including communication possibilities.<br>Mention consequences that can appear downloading files and opening sabotaging Internet sites</td><td></td><td></td></tr>
<tr><td rowspan="2">Outcomes to be reached finishing Grade 6</td><td colspan="2">Finds information about responsible design solutions in the digital environment, analyses, structures information according to given instructions, formulates and expresses personal opinion about them, makes a survey in the Internet, summarises the obtained information;<br>Uses responsibly several Internet services (e.g., World Wide Web, Web browser, communication tools, and planner) in order to find or share information, keeping the safety rules and considering their advantages and disadvantages.</td><td></td></tr>
<tr><td>Uses IT for getting acquainted with the cultural legacy of one’s region (town, municipality) and acquiring other experience</td><td></td><td>Explains why the content of the disseminated information should be evaluated, evaluates the adequacy of the information accessible in web pages to the concrete target group.</td></tr>
<tr><td>Outcomes to be reached finishing Grade 9</td><td></td><td></td><td>Gives features and ways of cheating out (fishing) of information, explains how to escape from defrauding of information. Is aware that sometimes cyberspace can be used as a means of propagating cruelty and violence.</td></tr>
</table>

## Conclusions

Media literacy is important for the life in a changing world. Media literacy is understood as the ability to access, analyse, evaluate and communicate messages in a variety of forms as well as the ability of individuals to access and understand information through different means, such as television, radio, print media, the Internet and digital technology.

Media literacy is developed in the new basic education curriculum. The outcomes to be reached in Technologies, Sciences and Social and civic areas planned in the Curriculum, finishing Grade 6 the skills to find information in different sources and to analyse the found information are developed purposefully and their development continues until the end of Grade 9. However, the development of the skill to evaluate the credibility of information is little paid attention. Only some outcomes in each of the three content areas serve as evidence to this. Here the new basic education curriculum needs improvement.

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# Teachers during Education Reforms: Challenges and Opportunities

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**Abstract**. Topicality of the research problem is connected with global and local processes and education policy in the society. In order to solve several topical issues on the quality of education, educational reforms are frequently implemented in different countries, also including Latvia. The aim of the study is to analyse education policy guidelines, theoretical studies and the results of the empirical research on the teachers' activity and needs to begin to implement the education reform on competence-based content development. The research methodology includes analyses of education guidelines, theoretical studies and surveys obtained from 146 teachers from comprehensive schools in Latvia. The teachers are ready to implement education reform, but the low self-initiative confines to execution of regulations, rules or instructions given by the school's leaders. The teachers appreciate highly their professionality, takes responsibility for the work within their subjects, but dissociate themselves from the responsibility for the whole teaching and learning process in the school, does not stand out with autonomy to make decisions independently. The obtained outcomes are the proof to the fact that attention has to be paid teachers' mutual collaboration, as well as development of pedagogy as science.

**Keywords**: education reform, collaboration, professional competence, school education.

## Introduction

The need for education reforms is determined by factors such as during the last decade the amount of information and its pace of circulation increase in the society, new revelations emerge, technologies develop really fast, the need for new knowledge and skills appear. In the society the interest in the quality of education rises and the education system in every country is forced to respond to the society's needs to introduce changes in the study process on all levels and education system in general.

From international perspective education reforms identified by the needs to implement requirements by the OECD (Organization for Economic Cooperation and Development) and PISA (Programme for International Student Assessment), which emphasize the need to review the goal of the education programmes in order to eliminate the contradiction between knowledge and skills, which are necessary in the future world, eliminate fragmentation of the content, strengthen the link between the educational establishment and community, encourage development of every individual's critical thinking, creativity and responsibility. A school as an organization is forced to change and adapt new conditions constantly, and every teacher individually and together with other colleagues learn to acquire new knowledge and skills, interact with each other and study regularly the outcomes of own work, analyse them and search for the ways of problem-solving (21st Century Learning…, 2007; Excellence and Equity…, 2016).

On the one hand, schools and society understand the necessity for different reforms and they support them, but on the other hand, there is also an opposition or, at least, the "procrastination mode," as in a sustainable work group or social memory enables them to remember the reforms of previous stages and the problems related to them. The most worrying issue is whether the ones involved in the reforms will possess a critical mind, perceive and deeply understand the essence of the reform, in its process will not lose the stable values accumulated through several decades, but on the contrary – will apply them purposefully in new conditions (Fadel, Bialik, Trilling, 2015).

As *a reform* is certain changes, rearrangement in a particular sphere of public life without changing the base of the current social structure, but in order to improve it, then the educational reform is not understood as a "revolution", but rather transformation, rearrangement and improvement of the educational content in compliance with the 21$^{st}$ century's educational goal to help every human learn to live in accordance with nature and other cultures, be able to self-realize and provide long-term and well-considered application of natural and public resources, be aware of the local problems and recognize its topicality in the global context, know the traditions of own culture and treat traditions of other cultures with respect, as well as take responsibility for the society's sustainability and its growth (21st Century Learning…, 2007; Hargreaves, Fullan, 2012; Fadel, Bialik, Trilling, 2015).

Educational Reforms *The school in 2030* (Skola 2030…, 2018) radically reverse the approach to teaching in Latvia, with the emphasis on student performance and their ability to use knowledge and skills acquired in school. Education reform supports the learning of each student and implements learning through an in-depth approach, emphasizing self-directed learning skills, improving the methodology of motivating the students' interest, increasing the students' ability to formulate and ask questions and developing cooperation skills in order to give recommendations to classmates (Pridane, 2018). The reform of the teaching/learning content envisages the implementation of the competence approach. This means that the focus on self-regulated learning, construction of knowledge and its application in diverse situations increases. Possibilities should be ensured for learners in the learning environment to apply their knowledge in diverse situations (Andersone, 2017).

The aim of the study is to analyse education policy guidelines, theoretical studies and the results of the empirical research on the teachers' activity and needs to begin to implement the education reform on competence-based content development.

## Methodology

Research is based on analyses of education policy guidelines and theoretical studies (Excellence and Equity…, 2016; Citizenship Education at…, 2017; Skola 2030…, 2018; Fadel, Bialik, Trilling, 2015; Fullan, 2015; Hargreaves, Fullan, 2012; Kidron, Kali, 2015; Danielson, 2007; Macisanas lietpratibai…, 2018). The question of the study is how comprehensive school teachers understand the purpose of the education reform on competence-based content development and what kind of assistance is needed.

Empirical research is based on survey results from 146 comprehensive school teachers in Latvia. The study carries out a quantitative and qualitative content analysis. The obtained data have been analysed, using individual parts (how many times one and the same name has been repeated in the replies related to the research problem), as well as analysis of the replies' meaning (the responses were structured in logical units and interpreted from the scientific point of view. The quantitative data are expressed in figures and is analysed in the text.

## Results and Discussion

Nowadays there is nothing more unique than the human being. In the 21st century it is also essential to acquire the universal and individual values, particular knowledge and skill to apply them. The base for everything is still languages, mathematics, natural and social knowledge. Only due to the increase of the information amount and variety of resources, more attention should be paid to the knowledge, what the knowledge acquisition ways of the previously mentioned areas are, what one has to know, how to access information and how to work with it. The issue how we do it, with what means becomes topical, and this already becomes the teacher's responsibility, for we do train our students for the workplaces which do not exist yet, for information technologies which will only be made and we teach them to solve the problems, about which we have not got a clue yet (Macisanas lietpratibai…, 2018; Fadel, Bialik, Trilling, 2015).

Justification of the education reform can be found in the fact that in practice there is a certain gap between the knowledge and skills students acquire at school and what is required by the society.

Teachers realize the standards of the comprehensive school subjects in order the student could pass successfully the centralized examinations. It creates the situation that the student only acquires a limited experience. The student, who can do more and better than what has been envisaged in the standards as the result to be achieved, are being discriminated to a certain extent (Anspoka, Kazaka, 2017).

The teachers need a new way of thinking about teaching and learning process in the school and school as an organisation in local society (Excellence and Equity…, 2016).

Traditionally, teachers have primarily taught school subjects. Today, however, we are moving away from subjects and towards a future where teachers will increasingly teach comprehensive learning skills. New technologies will also be integrated into teaching, and learning environments will be increasingly modified to promote learning (21st Century Learning…, 2007; Skola 2030…, 2018; Hattie, 2009).

Nowadays important school's task is to eliminate fragmentation and duplication in different subjects, provide succession of learning content acquisition and an opportunity for each pupil to see interconnections between the acquired in different areas, apply their knowledge in practice. If we want to improve education outcomes, we need to develop understanding of interdisciplinary teaching/learning of the learning content (Kidron, Kali, 2015).

No less important issue is to pay attention to a more profound awareness of the integrity of the internal and external structure of the learning process. Components of the learning process – goal of learning, learning content and methodology for its implementation are as important as how the student's activity for the information perception, comprehension and application is induced, such a cognitive action path in which topicalization of the previous experience happens, its comparison with what new has been revealed, analysis and synthesis of the previously acquired and newly acquired experience. Being aware of students varied experience, the professional teacher has to be able to direct the teaching and learning process from the monologue to the dialogue, from the convergent thinking, in which there is only one right opinion, to the divergent thinking, in which the teacher's opinion is also one of the opinions. We cannot afford to neglect the talented, with special abilities gifted pupils (Anspoka, 2016).

Without denying the role of technologies in the learning process, in practice they are perceived rather than as an additional tool and not as one of the learning process resources, which enable them to acquire new knowledge and skills, broaden their intellectual and emotional experience.

Nowadays students have the necessity to acquire skills to deal with information, applying various resources which are not just textbooks. Without denying that nowadays there are two worlds – the real and virtual world, it is important to help the student acquire the skill to work with different information and to distinguish real information from false information.

One of the teacher's challenges nowadays is to help the student understand the cultural environment, relationships with people of different cultures and life experience, and for it, such personalities as empathy, resilience, ability to take initiative, assess the situation quickly and make independent decisions are necessary (Excellence and Equity…, 2016; Skola 2030…, 2018; Danielson, 2007).

Today a high level of self-initiative and entrepreneurship skills are important for the teacher, in order to be able to transform any idea, as long as it is a purposeful one, into action. It requires from the teacher not only creativity, but also the skill to set goals and means for its implementation. The courage to take risks, ask for help, if it is necessary, get rid of dogmas, doubts, which slow down development, are not less important (Hargreaves, Fullan, 2012; Fadel, Bialik, Trilling, 2015).

One of the teacher's challenges during the education reform is to find balance between the traditional and innovative, understand that the teacher's experience integrated with the student's experience gives a wider experience, also teachers to share responsibility for the work outcomes between both cooperation partners. The modern global dynamism, frequent new challenges require to acquire the skill to plan one's work, moreover, not in a too far long-term, but for the time period in which one can see the result, see the success, what has to be changed and how it can be done the best (Fullan, 2015; Hargreaves, Fullan, 2012).

The challenge is topical to understand what the student's and teacher's responsibility during the teaching and learning process is, how broad the teacher's knowledge is on how to shape such a learning process in which the teacher's responsibility is not to pass on the knowledge, but teach students to obtain knowledge and know how to use it (Macisanas lietpratibai…, 2018).

The teacher also has to be theoretically prepared to see the process of changes from all aspects more broadly and profoundly, in order not to waste time and energy. Only personal and professional courage and responsibility do not allow to lose balance (Danielson, 2007).

One of the education reform's justification is based on the fact that the teacher has to be prepared to apply the obtained experience in the teaching and learning process, for it is also important for the student to recognize themselves and know how they learn themselves, how to perceive and memorize the information more easily. It facilitates the control of the learning process. It is a really important aspect, for one of the most significant learning stages is to acquire the skill to be independent – a personality who takes responsibility for their learning. It has to be part of the learning process, which enables the individual to acquire constantly the changeable knowledge also without any help from others. If the student is aware and knows how it is better for them to learn, the confidence in the ability to learn independently increases, the need for the control from the teacher's side decreases and the statement whether the result complies with a certain sample, regulations is less expected. The teacher's work today is to lead the student, who has taken own responsibility for their learning (Hattie, 2009; Fadel, Bialik, Trilling, 2015; Macisanas lietpratibai…, 2018).

Since a wide-ranging education reform on competence-based content development and implementation on all levels of education (Macisanas lietpratibai…, 2018) has been going on also in the education system of Latvia for the last two years, then in the reform involved people's awareness of the reform's purpose, as well as the ability to see what kind of help is necessary is a topical issue.

Education reform on competence-based content development aim is to develop content of education and the approach to teaching, which help to students acquiring the knowledge, skills and attitudes for life in the 21st century. Deep learning is a general approach as a way during which pupils develop their ability to generalise or transfer their new knowledge and skills to new and unknown situations (Skola 2030…, 2018).

Surveying teachers of comprehensive schools, 92 % of the mentioned respondents admit the need for the education reform, and the most important reason, stating the need for the reform, is in the practice existing, on the one hand, the useless overlapping of the learning content in different subjects, on the other hand, the contrary situation – the teachers' reliance on each other, and due to it, nowadays students do not acquire the essential particular knowledge and skills in any of the subjects.

These teachers from comprehensive schools are professionally ready for rearrangements both in the teaching and learning content and methodology for its implementation and look to school as a place to implement conscious research activity which would allow to cognize how rearrangements happen and what help is necessary, how to develop events for further improvement. The respondents mentioned above are convinced that during the education reform the teacher can receive the necessary support first of all in the corresponding school. School as an organization with its culture and systemic activity can provide the teacher further education activities, mutual learning opportunities and teamwork, activate teachers to make common or at least coordinated study programmes, teaching and learning aids, develop an exchange system of information and experience, stimulate and support the growth of the teachers. In addition, mutual trust, regular discussion about the professional work research data, application of the obtained experience for further work planning, acknowledgement and public assessment of the common and individual achievements, active involvement on the national level and other events are not less important.

Nevertheless, 8 % teachers of comprehensive school are confident that no rearrangements are needed, as they consider that in their institution everything happens according to the age requirements, and every reform just "knocks" the people out of the daily work rhythm, its comfort zone, which has been created during a longer period of time.

Attention should be paid to the data which confirm that 67 % teachers of comprehensive school are waiting from education reform the greatest benefit to improve the different subject teachers and mutual cooperation, development of a coherent study programme and teaching and learning materials, the teachers' theoretical knowledge and practical work experience.

The survey findings suggest 93 % of the respondents are critical of their professional competence and are considering that the most characteristic challenge in the in the teaching and learning process is less speaking, but more managing the process. Questions are rightly raised how to do it, how to decrease the number of tasks which require explanations, talking, how to encourage the individual work.

The research outcomes enable us to think that one of the problems for more successful work, when implementing the set requirements for modern teaching and learning process, is insufficient communication among the different subject teachers. Four percent of teachers admit that teachers perceive their colleagues not as cooperation partners but rather than competitors. According education reform's purpose to improve education outcomes, 82 % of the surveyed respondents admit that not only the subject teachers' mutual collaboration, but also the teachers and support staff's (librarians, psychologists, social pedagogues, speech therapists, career consultants) cooperation has to be improved. According to the respondents, in general the cooperation exists, but it is episodic, mostly, in a special situation. In order to promote a more purposeful teaching and learning process, respondents acknowledge the need for regularity and collaboration in the particular system.

According to the data, 26 % of teachers have low self-initiative, they mostly want to execute the normative acts, educational politicians or school leaders' regulations well, justifying it with the fact that they do not feel safe or they do not understand the goal, content and other issues of the education reform well enough, also they do not want to take extra responsibility, they are afraid of making mistakes, receiving allegations from the administration and colleagues. Among these respondents there are the ones who think they will wait what the decisions are made during the education reform and then they will implement them. Seventy-four percent of the respondents think of themselves as active members of the reform, for they are confident of their competency in the education field and know how to affect the quality of education. It means we are forced to take into consideration some of teachers need the external help, and it should be respected. The teachers need help on how to assess critically more successfully their professional competence and notice what has to be changed, how to accomplish it, if necessary, who ask help for, how to overcome stress and critical situations.

As a contribution to the professional competence development, 88 % surveyed teachers acknowledge the provided opportunities to get to know the experience of other countries, different teaching and learning theories, the already approbated practice in other countries, but it is connected with another problem. However, alongside that both teachers-practitioners and scientists have got more responsibility in the development of the pedagogical terminology.

As research shows, carrying out improvements in the education process and adapting the experience of other countries, the problem of translation emerges. Respondents admit that the situation appears due to insufficient profound theoretical knowledge and it causes insecurity, and teachers, even leaders of schools accept the terms used in a foreign language without any critical assessment, transfer them literally to their language and get lost in translation.

Implementing education reform on competence-based content development introducing a new approach and new methods in education, one cannot deny completely the current experience; a new term in a foreign language is not always related to a new term. Adoption of foreign words without any justification should be avoided. If the meaning of a word is understood precisely, it can also be expressed successfully in the mother tongue. It is a distributed responsibility to preserve and maintain also the national aspect of pedagogy.

## Conclusions

Education reform as the process of education content transformation, rearrangement and improvement in compliance with the 21st century's education goal is necessary in order to maintain the quality of education and eliminate such problems based on the education guidelines and theoretical studies as overlapping of the learning content or insufficient acquisition of knowledge and skills topical nowadays, whose cause most often is the insufficient teachers collaboration,students' inability to lead and assess the cognitive activity themselves, taking responsibility for the result.

Teachers from comprehensive schools are professionally ready for education reform on competence-based content development and implementation on Latvia, they acknowledge the need for them and during the education reform the teacher can receive the necessary support first of all in the corresponding school.

School as an organization with its culture and systemic activity can provide the teacher's further education activities, mutual learning opportunities, activate teachers to make common or at least coordinated study programmes, teaching and learning aids, develop an exchange system of information and experience, stimulate and support the growth of the teachers.

The greatest benefit of education reform on competence-based content development and implementation on Latvia is to improve the different subject teachers and mutual cooperation, development of a coherent study programme and teaching and learning aids, the teachers' theoretical knowledge and practical work experience.

One of the tasks is help to teachers with low self-initiative, that they do not feel safe or they do not understand the goal, content and other issues of the education reform well enough, also if they do not want to take extra responsibility, are afraid of making mistakes, receiving allegations from the administration and colleagues.

As a contribution to the professional competence development, teachers acknowledge the provided opportunities to get to know the experience of other countries, different teaching and learning theories, the already approbated practice in other countries.

Education reform on competence-based content development has also got its place in the development of pedagogy science, and it has to be done, assessing critically the current experience, implementing the new terminology thoughtfully, since a new term in a foreign language is not always related to a new term. Acquisition of a foreign word should be avoided. If the meaning of a word is understood correctly, it can also be expressed successfully in the mother tongue. Scientists and practitioners' distributed responsibility is to maintain and preserve pedagogy as a national science, too.

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# Critical Evaluation of Personality Traits and Behavioural Gender Peculiarities of Latvian Males and Females

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**Abstract:** The topicality of this study is determined by a growing interest in gender studies in all fields of science. For the purpose of this particular study, the authors have analysed the peculiarities of males and females in the context of androgyny theory. The aim of the study is to explore how Domination and Submission determine the behavioural patterns and dynamics of Latvian males and females. The research was based on quantitative research methodology. The authors adapted a methodology by Leary, Leforge and Sazek. The number of research participants was 204, the participants represent different regions of Latvia and three age groups varying from 19 to 62 years old. Empirical research that was carried out in 2016-2017 has revealed the traits and the dynamics of gender behaviour of Latvian males and females. The authors have measured the scale of masculinity and femininity among the research participants. It was discovered that in all groups of research participants, namely, in the age groups ranging from 18 to 60 years old, both males and females display high level of androgyny. Research results demonstrated head apt ability of the inhabitants of Latvia in the changing socio-economic conditions. As a result of constructing models of male and female social behaviour, it was concluded that a values system determined by societal and cultural conditioning and accepted social norms is of a crucial importance. The theoretical basis of this research is grounded in classical theories and the latest research in the field. As a follow-up research, the authors have explored such gender traits as Domination, Submission and Altruism.

**Keywords:** personality traits, characteristics of male and female behaviour and their dynamics, psychology.

## Introduction

Formation of a gender identity is a topical issue in Latvia and abroad. Many researchers (Bordo, 1990; Rustin, Foels, 2012) report that during the last 20 years, the main focus of attention is on how socio-cultural norms determine male and female's psychological peculiarities, models of behaviour and professions. A high index of androgyny was detected with the inhabitants of Latvia during the survey conducted in 2016 -2017, which was realised according to S.L. Bem's (1974) concept of gender role and the results of BSRI (Bem Sex-Role Inventory) (Badjanova, Ilisko, Petrova, 2018).

S. Bordo (1990) emphasises that politics influences the formation of identity. Identity is characterised by such determinants as gender and sexuality. There are new types of identity emerging with „unbalanced" or not constant gender characteristics which do not correspond to cultural norms that traditionally define a personality. S.L. Bem (Bem, 1998) emphasises that mechanisation and economic crises makes it more difficult for males to define their identity financially. To define men's identity by their financial status means defining them as losers. The traditional gender roles no longer serve as main gender characteristics.

In order to understand the influence of the environment on gender behaviour, U. Bronfenbrenner (1979) suggests a system theory and its emphasis on a socio-cultural approach to the development of an individual and points to five subsystems that interrelates among them. Social interactions take place in a micro-system and determine the development of individual's self-understanding (Santrock, 2011).

The relationships with peers and adults are some of the most significant influences. The mesosystem involves relationships with micro- and macro-systems, for instance, the relationships between family experience and mass media. The macro-systems in involve a cultural influence irrespective of the size of the group, thus influencing the identity, knowledge, social behaviour and ethnic belonging. The chrono-system involves significant events and changes in the life of an individual, as well as socio-historical conditions.

By the analyses of diverse aspects of male and female behavioural models, S.M. Burn (2014) determines the content of social constructivist theory that is based on the following premises: (1) gender is constructed by socialisation, gender role system, and the influence of family and mass media; (2) gender is constructed on a level of consciousness by accepting the norms determined by the society in regards to appearance and manner of behaviour. Any individual can change his/her behaviour in adjusting it to societal norms. This kind of behaviour can be considered as submissive, involving one's willingness to escape from societal punishment and/or gain societal approval. This is a normative type of behaviour. Therefore, male and female model of behaviour is expanded by the following notions.

- Compliance. Compliance to societal norms. Person does not accept them but acts in order to escape from punishment and earn societal recognition.
- Acceptance. Submissiveness to societal norms.
- Identification. Compliance to societal norms when a person emulates a role model.

Contemporary theories (Walsh, 2001; Lips, 2014) reveal not only a difference in status, role and other aspects of male and female life conditions, but also the analyses on domination and power issues that are transferred by the main gender roles and relationships. Gender is defined as the societal positions and individual characteristics that are viewed as characteristic to males or females. Gender role identifications are related role identifications and a number of components of gender stereotypes: personality traits, role behaviour, profession, and physical appearance.

Among the gender differences, there is no indication of leadership. Researchers (Bem, 1998; Rustin, Foels, 2012; Racene, 2013) draw attention to the fact that more and more of contemporary women carry a financial responsibility for their families. Psychologists point to minor differences that exist between male and female behaviour and highlight the similarities. The notion of androgyny is developed when a person displays both feminine and masculine characteristics depending on the situation. Therefore, the issue of male and female gender similarities and differences remains open for discussion.

The following section of the article will present and discuss the next stage of research with the proposed aim: to explore the peculiarities of Latvian male and female personality traits across three age groups and comparatively analyse the obtained results against the findings of a previous study on male and female behavioural gender peculiarities.

**Methodology**

Non-experimental research design was used in this quantitative study, which was conducted in 2018 in real life environment in different regions of Latvia. Two research questions were proposed: (1) are there any differences between male and female personality traits in youth, early and mid-maturity age groups? (2) how can personality traits impact male and female behavioural gender peculiarities in early and mid-maturity ages?

Within the structure of empirical research design a research instrument was created to study Latvian female and male personality traits: a questionnaire of Leary, Lefroge and Sazek was adapted. The questionnaire contained 128 statements (Leary, 1954; Ilyin, 2008, 411-413). The questionnaire was designed with an aim of determining such personality traits as Dominance, Submission and Altruism among females and males from Latvia, which have a major significance in decision making, either through relying on one's own opinion or submitting to others, and the similarities and differences in corresponding behavioural patterns across the age groups of youth, early and mid- maturity. The methodology included instruction, answer form and recommendations for data processing and interpretation. The obtained data were quantitative. Quantitative and comparative analysis of the empirical data was performed by using the SPSS (Statistical Package for Social Science) data processing programme, version 20.00.

The research was conducted with 204 respondents ($N$ = 204 (100 %)) in 2018. Of those, 134 were women ($n$ = 134 (65.7 %)) and 70 were men ($n$ = 70 (34.3 %)). That study included participants belonging to three age groups from 18 to 60 years of age. The first group of respondents was made up of men and women aged 19 to 20 ($n$ = 35 (17.2 %)); the second group of respondents was comprised of men and women aged 21 to 25 ($n$ = 53 (26 %)); the third group of respondents included men and women aged 26 to 62 ($n$ = 116 (56.9 %)).

In the course of research, in order to detect the characteristically male and female personality traits in response to the first question, during the first stage of data processing eight scales determining the personality type were singled out and the total value was calculated for each scale separately. According to the methodology, the mean value of the first four scales pertains to Domination, the mean value of the following three scales pertains to Submission, but the eighth scale – to Altruism. In addition, the Degree of Expression was determined for each separate scale.

**Results and Discussion**

The distribution of Domination, Submission and Altruism according to the Kolmogorov-Smirnov test both gender groups showed no significant deviation from the normal distribution, which allows for the application of Student's t-test in comparing these quantitative indicators.

Domination for women varies from 1.75 to 11.5 in relation to Mean (*Mean* = 6.78; *Range* = 9.75; *Std. Deviation* = 2.04). For males, this indicator is in a range from 1.75 to 13.75 (*Mean* = 7.61; *Range* = 12, *Std. Deviation* = 2.19). The Mean of Submission for women is - 8.00 (*Mean* = 8.00), but for men is - 6.69 (*Mean* = 6.69). Altruism for women is - 9.93 (*Mean* = 9.93), but for men is - 7.93 (*Mean* = 7.93). The levels of statistical significance of Student's criterion for all three indicators was less than 5 %, consequently, we can observe statistically significant differences between male and female genders. Domination has a higher value with men, Submission and Altruism with women (Figure 1).

With both men and women, we observe direct significant correlations of mean power between Submission and Altruism ($R^2$ = 0.588 with women and $R^2$ = 0.610 with men). With women all three indicators differ statistically significantly (*Paired Samples Test*, *Sig.* < 0.001): Dominance has the lowest value whereas Altruism – the highest. With men, no significant difference can be observed between Domination and Altruism (*Paired Samples Test*, *Sig.* < 0.537), while Submission has the lowest value out of all three indicators and significantly differs in measure from both Domination and Altruism.

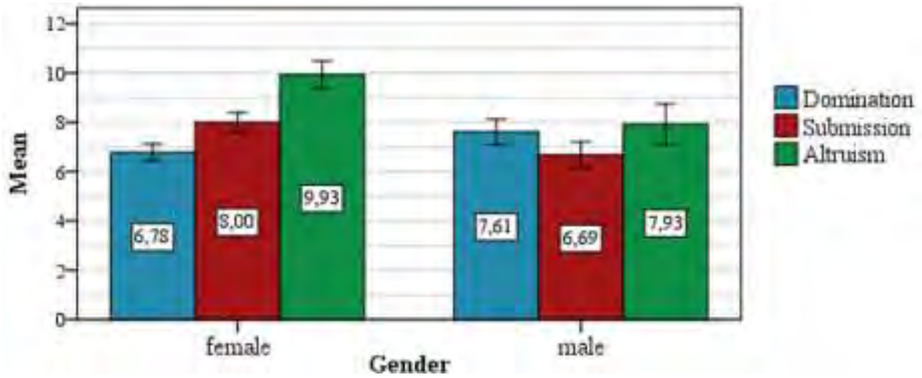


Figure 1. Mean values of Domination, Submission, Altruism with male and female respondents.

According to Kolmogorov-Smirnov test, the distribution of Domination, Submission and Altruism in all three age groups showed no significant deviation from the normal distribution. The normal distribution is the most important and most widely used distribution in statistics. An assessment of the normality of data is a prerequisite for many statistical tests because normal data is an underlying assumption in parametric testing. Normal distributions are symmetric around their mean. The mean, median, and mode of a normal distribution are equal. Normal distributions are defined by two parameters, the mean and the standard deviation. Many classical statistical tests (*Student's t-test*, one-factor analysis of variance ANOVA) are based on the assumption that the data follow a normal distribution. We usually use Kolmogorov-Smirnov test to check the normality assumption.

To estimate the impact of age on these indicators, we used the one-factor analysis of variance ANOVA (Domination: *F* = 5.037, *Sig.* = 0.007; Submission: *F* = 2.343, *Sig.* = 0.099; Altruism: *F* = 7.730, *Sig.* = 0.001). According to the F-criterion, age has a statistically significant impact on Domination and Altruism. Domination has the lowest value in the age group of 26 to 62 years old. In the age groups of 19 to 20 and 21 to 25 years old Domination has no statistically significant differences (*Bonferroni criterion*, *Sig.*= 0.010). Altruism in these age groups also shows no significant differences in value whereas in the age group of 26 to 62 years old it is significantly higher. Submission has the lowest value in the age group of 21 to 25 years old and the highest value in the age group of 26 to 62 years old, although these differences are no statistically significant. In all age groups we can observe statistically significant direct correlations between Submission and Altruism. According to the Paired Samples Test, in the age group of 19 to 20 years old we observe no statistical difference between Domination, Submission and Altruism. In the age group of 26 to 62 years old Domination has the lowest value and Altruism the highest, and these differences are statistically significant. With that, the differences between Domination-Submission and Submission-Altruism in this age group are also statistically significant. In the age group of 21 to 25 years old Submission has the lowest score and Altruism the highest, yet the difference between Domination and Altruism is not statistically significant (Figure 2).

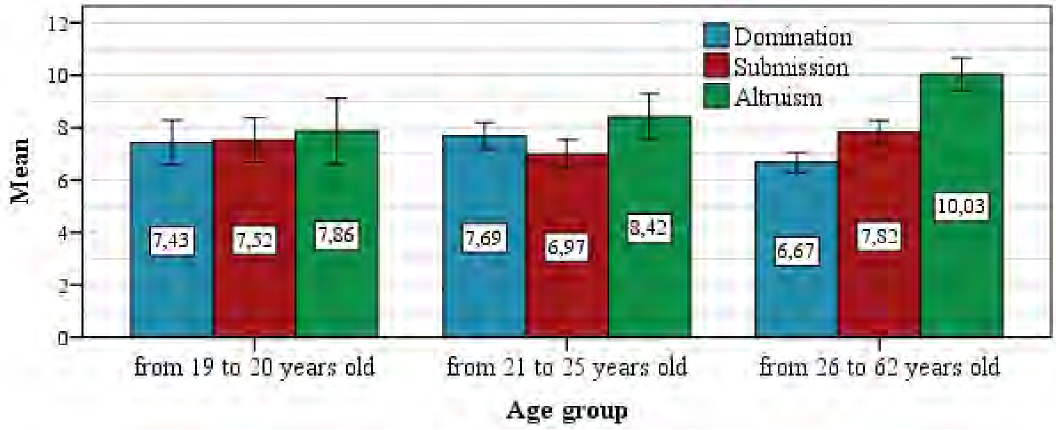


Figure 2. Mean values of Domination, Submission, Altruism with respondents of different age groups.

Figure 3 illustrates how Dominance is impacted by the two factors of age and gender. In all age groups the values of Dominance with men are higher than with women, yet in the age group of 26 to 62 years old this difference is not statistically significant (*T-test*, *Sig.*= 0.014). With men we observe no impact of age on Domination (ANOVA, *Sig.* = 0.751), whereas with women Domination decreases with age, and this impact is statistically significant (ANOVA, *Sig.* = 0.011).

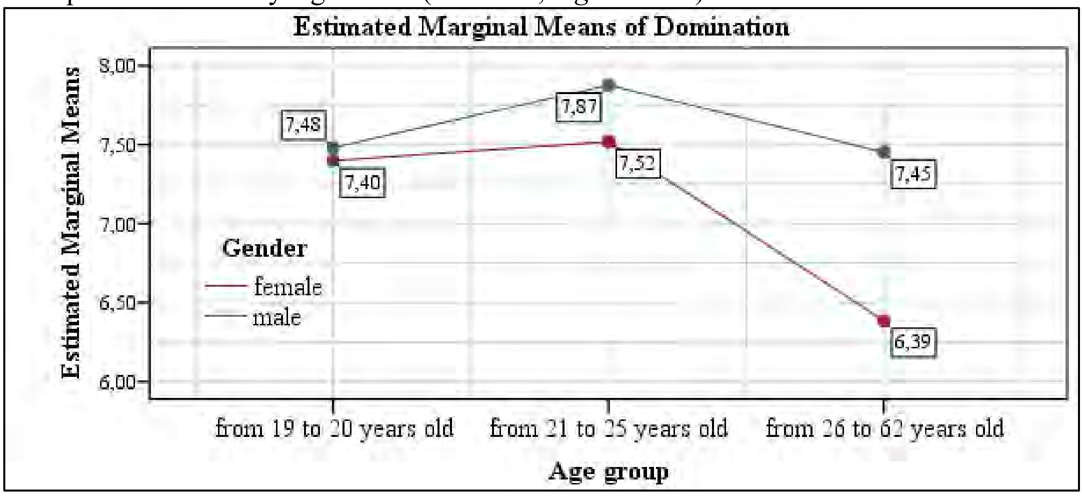


Figure 3. Estimated marginal means of Domination with male and female respondents of different age groups.

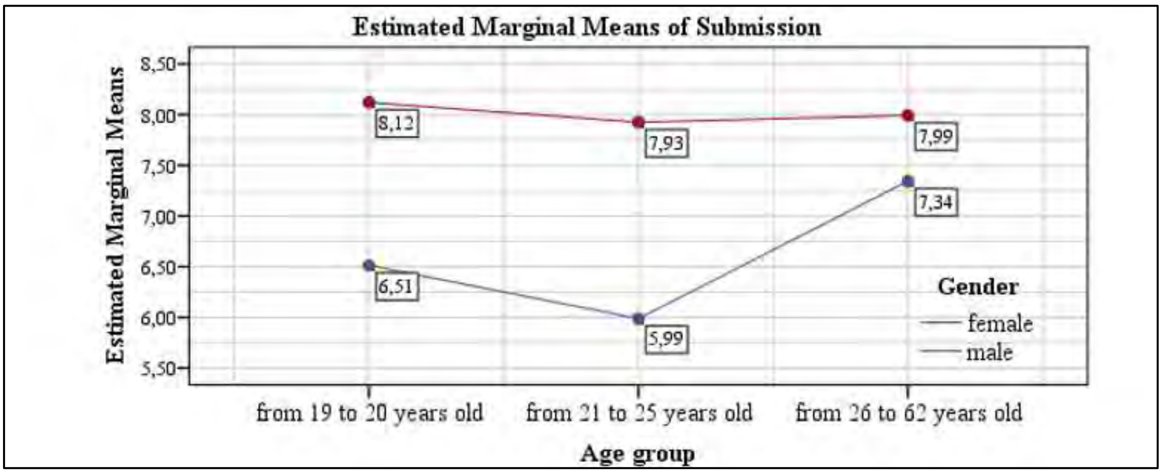


Figure 4. Estimated marginal means of Submission with male and female respondents of different age groups.

Submission (Figure 4) in all age groups has higher values with women than with men, yet in the age group of 26 to 62 years old this difference is not statistically significant (*T-test*, *Sig.* = 0.210). Age has no significant impact on Submission either for women or for men (ANOVA, *Sig.* > 0.05).

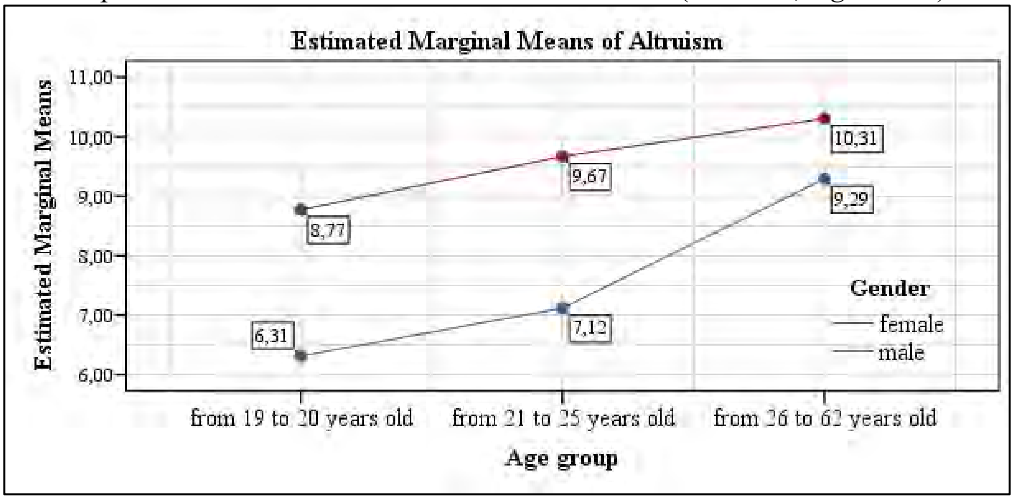


Figure 5. Estimated marginal means of Altruism with male and female respondents of different age groups.

In all age groups (Figure 5) the values of Altruism are higher with women than with men, yet in the age group of 26 to 62 years old this difference is no longer statistically significant (*T-test*, *Sig.* = 0.150). With women age has no significant impact on Altruism (ANOVA, *Sig.* = 0.142), whereas with men this impact is statistically significant (ANOVA, *Sig.* = 0.008).

## Conclusion

The results of empirical research yielded the essential traits characteristic of male and female personality. In response to the first research question of whether there are any similarities of differences between male and female personality traits in the youth, early and mid-maturity age groups we can conclude that in all age groups Domination values among men are higher than among women, whereas Submission and Altruism values with women are higher than with men. Hence the conclusion that gender indeed determines certain differences in male and female personality traits.

Regarding the impact of age on manifestations of male and female personality traits, we can conclude the following:

- in the age group of 19 to 20 years old, statistically significant differences can be discerned in the manifestation of Altruism, that being higher with women than with men; men display more Dominance while women demonstrate higher rates of Submission;
- in the age group of 21 to 25 years old, no statistically significant difference was discerned. Yet, in this age group women show slightly higher rates of Dominance than in the first age group;
- in the age group of 26 to 62 years old, Domination has the lowest significance whereas Submission and Altruism – the highest, and these differences are statistically significant. With regard to the impact of age on the intensity of personality traits, we can conclude that age has no impact on manifestations of Dominance in men, the scores are similar in youth, early and mid-maturity age groups. With women, on the contrary, there is a difference – the older a woman, the less intensive manifestations of Domination in her, and this age impact if statistically significant. However, age has no impact on the category of Submission, with no statistically significant differences both in men and women. In all age groups from youth to early and mid-maturity Submission rates are higher for women than for men, with no statistically significant difference between the sexes in the age group of 26 to 62 years old.

This, irrespective of the gender, age has a statistically significant impact only on the parameters of Dominance and Altruism: in women the intensity if Dominance drops significantly with age, whereas the intensity of Altruism grows. In all age groups Submission rates do not display any statistically significant differences: it is more manifested in women than in men, but the age has no impact on its intensity. Practically, with men no statistically significant difference can be observed. With women there is a difference, but not as significant. In order to answer the second research question – how can personality traits impact male and female behavioural gender peculiarities in early and mid-maturity age groups – masculinity was initially interpreted as a parameter of the personality trait of Dominance, but femininity as a parameter of the personality traits of Submission and Altruism.

According to the obtained research results, we can conclude that in the youth age group (19 to 20 years old) personality traits have no impact on behavioural gender peculiarities of either males or females, as opposed to early (21 to 25 years old) and mid-maturity (26 to 62 years old) age groups, where women of the early-maturity age and men of mid-maturity age display androgyny (Dominance for women and Altruism for men). It can be established that according to previous research results the indices of masculinity and femininity were more or less similar in youth and early-maturity age groups, whereas in the mid-maturity age group both men and women displayed high rates of androgyny. It was also concluded that age in particular had an impact on the high indices of androgyny. This year, the research results also reveal that regardless of the fact that in all age groups the intensity of Altruism is higher in women that in men, men aged 26 to 62 years old display the highest intensity rate of Altruism (androgyny) as compared to the previous age groups. In women, on the contrary, this age group displayed a drop in the intensity of Dominance (androgyny) while in the early-maturity age group the intensity of Dominance (androgyny) was higher. Minor differences from previous research results may be observed.

Thus, the index of androgyny and personality traits is closely related only in the second age group for women and in the third age group for men. It proves that personality traits can have a partial impact on behavioural gender peculiarities. Hence, the conducted study of Latvian female and male personality traits enables us to conclude that they had a discernible impact on male and female behavioural gender peculiarities only in the early and mid-maturity age groups. This aspect can be interpreted as follows: only age rather than gender can affect personality's capacity for adaptivity in the changing life conditions. This aspect warrants further and more in-depth study.

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# The Role of Relationships in Teaching Content Important for Sustainable Development

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**Abstract**: The article recalls the opinions of scientists on the current state of the environment and the need for effective education in the field of sustainable development. It also presents considerations on the importance of human relationships (mainly between teacher and student but also student with him/herself). The aim of the study was to determine the knowledge and understanding of the role of relationships in solving environmental, educational and personal issues among the students of the Faculty of Biology and Agriculture of the University of Rzeszow in Poland. A survey was carried out among 100 participants, including 64 % of women. The research indicates that according to the surveyed students, the teacher should have authority and passion, and regardless of the subject they teach, they should also be interested in environmental problems with a good understanding of the assumptions of sustainable development. To save life on the planet, the majority of the students agreed on introducing the term "violence on the environment" in order to facilitate the creation of an ethical basis for improving the relationships with nature degraded in the 21st century by man. The respondents recognized the importance of good relationships with various people (student-teacher, student -student, etc.) as well as themselves. Highlighting these facts and disseminating them among teachers at all levels is of great importance and may be relevant for the effective teaching of the content related to sustainable development, which has become a priority. The study confirms the right assumption of a decade of education for sustainable development, concerning the necessity of constant education of various age and professional groups of the society around the world. There is little time left before it turns out that we will be the only species able to report their own destruction.

**Keywords**: sustainable development, university education, relations.

## Introduction

Over 25 years have passed since the First Earth Summit in Rio de Janeiro (The Rio Declaration…, 1992) where the whole world, seeing the threats to the global population of Homo sapiens, committed itself to following the path of sustainable development. The Union of Concerned Scientists and more than 1,700 independent scientists, including most of the Nobel Prize winners in the field of science, wrote "Warning of scientists from around the world for the mankind" (Ripple et al., 2017). These anxious professionals have called on humanity to limit the destruction of the environment and change the way the Earth and its life are managed. "In their manifesto they expressed their concern about the approaching destruction of the planet Earth due to the disappearance of the ozone layer, the shrinking of freshwater resources, the elimination of marine organisms, the expansion of dead zones in the oceans, deforestation, destruction of biodiversity, climate change and constant population growth. The WWF report (Stando, 2018) says that people murdered over 60 percent of animals in the world. And it took "only" 40 years. The issue is more serious because biodiversity is the basis of ecosystem services for humans (Johnston, 2018).

The signatories of the statement believe that the vast majority of risks identified earlier did not cease, and "most of them are getting worse". However, these trends can be reversed and ecosystems can be regained.

Meanwhile, people do not change their attitude to nature and are stuck in consumer habits, or change very slowly. Why is it like that? Do they not receive the information justifying the need for immediate action? Are the methods of transferring knowledge and activities used in education for sustainable development simply ineffective? The whole world is looking for effective methods of teaching and learning and wonders where the secret lies. Or maybe in the world where everything is faster and faster, there are not enough adequate relations on the teacher-student plane? The issue is also being dealt with by such authors and researchers as R. Andersone (2017), B. Kalke and I. Sumane (2016) as well as K. Karasniece and A. Abele (2016).

The publication is a continuation of considerations in the field of seeking effectiveness for the dissemination of important content, including promoting sustainable development, which gives an opportunity to protect and restore ecosystem services for the human kind (Kostecka, Cyrankowska, Piersiak, 2016; Kostecka, Cyrankowska, 2017; Dytrtova, Nemejc, 2018; Kostecka, Cyrankowska, Podolak, 2018).

The aim of the study is to draw the students' attention to the role of relationships in their personal and educational environment and to determine whether they are considered important. The publication emphasizes their relevance for teaching content connected with sustainable development.

## Methodology

The following study is a review article based on a problem study and brief analysis of the selected literature. The authors of the study examined the opinions of students of Agriculture, Environmental Protection, OZEiGO (Renewable Sources of Energy and Waste Management) at the University of Rzeszow (Poland) on the subject of selected teacher characteristics and his/her relationship with students.

The following questions were answered with 5 answers available (yes, rather yes, I do not know, probably not, no). One question was open.

The survey's questions were divided into three groups:

I. Is it important for the teacher to have authority? Should the teacher convey a visible passion? Should every teacher, regardless of the subject they teach, be interested in environmental problems? Should they understand the assumptions of sustainable development? Is it worth introducing the concept of "violence towards the environment"? Why? (Explain). How can it help?

II. Are the teacher-student relations important for the learning outcomes? Do you agree with the statements? Taking care of myself I care about people around me; - Relationships are very important a) with family; b) with friends; c) with colleagues; d) with neighbours; e) with the teacher; f) with strangers (in the street, on the bus, in a shop).

III. Are relationships with yourself important? (- I try to make everyone like me; - I often compare myself to others; - I accept myself; - I demand a lot from myself; - I know my strengths; - I would prefer to be someone else; - I like being alone with my thoughts; - I appreciate myself).

Students were randomly selected for the study, but within a target group. In total, 100 people were interviewed (including 64 % of women). All the students knew the assumptions of sustainable development and were aware of the civilization threats. This was due to the educational path they had previously covered, which included subjects, such as ecology or environmental protection with the presentation of sustainable development assumptions and the importance of their implementation.

## Results and discussion

Research indicates that according to the surveyed, the teacher should have authority and should convey a visible passion (Table 1). Moreover, regardless of the subject they teach, they should now be interested in environmental problems and should understand the assumptions of sustainable development (Table 1). How to make up for these shortcomings, because the reality is usually different? Here, of course, the right assumption of a decade of education for sustainable development (Kostecka, 2009) is confirmed here, namely, the necessity of constant education of various age and professional groups of the society around the world. There is little time left (Ripple et al., 2017) or we might be the only species able to report their own destruction.

Trying to find effective means to change the ethical attitudes towards sustainable development, the respondents were asked whether it was worth introducing the term "violence towards the environment."

Most respondents answered yes or rather yes (74 % in total). Explaining why and how it could help, the following issues were raised (according to the frequency of mentioning, starting from the most common argument): the very word "violence" is associated negatively and is usually used with reference to people and animals, but in connection with the environment, it can also draw people's attention to the environmental degradation and appeal to more people; it is necessary to make everybody, especially young people, aware of the threats to the environment; many people do not realize how environmentally harmful their behaviour is; it can help change the way people think and act.

Table 1

**Answers to the first group of questions (%)**

| Question / Answer | Yes | Rather yes | I do not know | Rather not | No |
|---|---|---|---|---|---|
| Is it important for the teacher to be an authority figure? | 72 | 20 | 4 | 2 | 2 |
| Should the teacher convey a visible passion? | 60 | 32 | 6 | 2 | 0 |
| Should any teacher be interested in environmental problems? | 38 | 42 | 12 | 4 | 4 |
| Should they understand the assumptions of sustainable development? | 60 | 32 | 8 | 0 | 0 |
| Is it worth introducing the concept of "violence towards the environment"? | 50 | 24 | 18 | 2 | 6 |

The respondents also gave some examples of environmental violence, namely: massive deforestation; littering the environment; destruction of biodiversity; urbanisation of green areas; lawn destruction; disturbance of balance.

Summing up these assessments, it can be said that the introduction of the concept of "violence towards the environment" may facilitate the creation of an ethical basis for improving relations with the degraded nature, in order to save the planet and ourselves.

The second part of the survey included proving the assumption that teacher-student relations and student's relationships with themselves were important for the participants. Most of the respondents agreed with it (Table 2 and Table 3). The only exceptions were questions concerning comparisons to others and "would I prefer to be someone else".

Table 2

**Answers to the second group of questions (%)**

| Do you agree with the following statements? | Yes | Rather yes | I do not know | Rather not | No |
|---|---|---|---|---|---|
| Teacher-student relations are important for educational outcomes | 68 | 30 | 0 | 2 | 0 |
| Caring about myself, I care about people around me | 52 | 36 | 8 | 0 | 4 |
| Relationships are essential | 90 | 10 | 0 | 0 | 0 |
| a) with family | 96 | 4 | 0 | 0 | 0 |
| b) with friends | 88 | 12 | 0 | 0 | 0 |
| c) with colleagues | 68 | 30 | 0 | 2 | 0 |
| d) with neighbours | 52 | 38 | 4 | 2 | 4 |
| e) with teachers | 56 | 38 | 2 | 2 | 2 |
| f) with strangers (in the street, on the bus, in a shop, etc.) | 26 | 44 | 16 | 8 | 6 |

As the research results show (Table 2), teacher-student relations are assessed as important. The vast majority of respondents (52 % - yes and 36 % - rather yes) think that taking care of themselves in a healthy, wise and non-egoistic way, they care for others. Everybody acknowledged the importance of relationships (90 % - yes, 10 % - rather yes), and relations with family were considered to be particularly important (96 % - yes, 4 % - rather yes), then with friends (88 % - yes, 12 % - rather yes) and with colleagues (68 % - yes, 30 % - rather yes). Relations with the teacher showed slightly lower figures (56 % - yes, 38 % - rather yes) as well as with neighbours (52 % - yes, 38 % - rather yes), but in total they were positive valued by the majority. Although 16 % of respondents did not know whether relationships with strangers were important, and 14 % even thought that they were not or rather not, almost half of the students considered them to be important or rather important.

What were the relationships with the students themselves? (Table 3)

Almost all of the students surveyed considered themselves important (96 %), which is reflected in self-acceptance (90 %), self-appreciation (78 %) and awareness of their strengths (78 %), as well as self-satisfaction (66 %). However, at the same time, as many as one third of the respondents did not know whether or not they would prefer to be someone else. Over half (64 %) set high standards for themselves and the same percentage tries to be liked and accepted by others. A similar number of students (62 %) do not compare themselves to others and like to be in their own company with their thoughts (70 %).

Table 3

**Answers to the third group of questions (%)**

| Do you agree with the following statements? | Yes | Rather yes | I do not know | Rather not | No |
|---|---|---|---|---|---|
| Good relationship with myself is important | 92 | 4 | 4 | 0 | 0 |
| I try to make everyone like me | 16 | 48 | 10 | 20 | 6 |
| I often compare myself to others | 14 | 10 | 14 | 44 | 18 |
| I accept myself | 50 | 40 | 8 | 2 | 0 |
| I demand a lot from myself | 28 | 36 | 20 | 10 | 6 |
| I know my strengths | 42 | 36 | 16 | 4 | 2 |
| I would prefer to be someone else | 2 | 2 | 30 | 18 | 48 |
| I like to be alone with my thoughts | 34 | 36 | 8 | 20 | 2 |
| I appreciate myself | 40 | 38 | 14 | 8 | 0 |

We do not always realize how important relationships are. They affect the quality of private and professional life, influence satisfaction and efficiency, and consequently have an impact on mental and physical health. We usually think about relationships with other people, however, B. Siegel (2014) says that these are indeed very important, but the most important is the relationship with yourself. Meanwhile, we usually pay too little attention to ourselves, and when we do, we often suspect ourselves of the worst traits, such as egoism, egocentrism and narcissism. So, how to build a healthy relationship with yourself and with others? W. Glasser (2008) draws attention to behaviours concerning relationships and distinguishes between habits that build or destroy them.

Among the habits that build relationships, we can distinguish: care, listening, support, encouragement, trust, respect and cooperation. Habits that destroy relationships include blaming, criticizing, moaning, grumbling, threatening, punishing, and even rewarding if it is a form of control (Glasser, 2008). M. Gandhi (2018) discovered that "Man often becomes what he believes himself to be" and M. Peer (Peer, Howes, 2018) shares a similar view, saying that "First, you create your beliefs and then they create you."

We study the outside world, and we do not know and underestimate our own internal wealth and potential. We also do not know what limits us. Getting to know ourselves, we will gain self-confidence based on a healthy sense of self-worth, and our actions will be more focused, sensible and effective. The result may also be better health and a greater sense of fulfilment, contentment and happiness.

And what are additional benefits? Being oneself releases the life energy that has been trapped in conditioned thoughts and attitudes (Chopra, 2017).

N.D. Walsch (2017), on the other hand, claims that from the perspective of his life, you can see that life is not about us. It's about all those whose lives we touch and how we do it. But in order to do it with respect, wisely and with love, you have to try to be the best version of yourself so that when we touch the lives of others, we all grow. Therefore, a positive attitude towards ourselves, other people and nature, that surrounds us, is of crucial importance for building sustainable development and a better world for everybody.

## Conclusions

The situation on Earth requires quick and effective remedial action in the space of man-nature relationship and the utilization of its resources. In studies on a selected group of Polish students, it was shown that a modern teacher should have authority and communicate knowledge with a visible passion. They should also understand the assumptions of sustainable development to share this knowledge. The surveyed students accepted the implementation of the term "violence towards the environment", by means of expressions like: massive deforestation; littering the environment; destruction of biodiversity; disturbance of natural balance, the use of which personifies the natural environment, gives weight to the phenomenon and fills the issue with emotions. This way it should be easier to acknowledge the problems and find solutions for the common well-being.

To repair our relationship with nature and to take care of the environment in which we live, good relationships with ourselves and each other, mutual respect, understanding and empathy are strongly needed. We will not understand other people without understanding ourselves and we will not be able to change the behaviour of others, we can only change ourselves. That is why it is so important to get to know yourself by carefully observing your thoughts, words and beliefs, as well as be open for transformation, a different way of thinking and acting, suitable for the changing reality in order to be able to counteract real threats. The habits that build relationships could be support, listening, encouragement, trust, respect and cooperation, but the habits destroying relationships are criticizing, threatening and punishing.

The conducted research has shown that the awareness of the majority of the students in this field is high and it is a good start for the targeted and effective action in the future for the benefit of all humanity.

A good teacher-student relationship is able to transfer the passion to the next generation. Teachers who know the foundations of sustainable development, focus their students' attention to the disappearance of the ozone layer, the shrinking of freshwater resources, the elimination of marine organisms, the expansion of dead zones in the oceans, deforestation, destruction of biodiversity, climate change but also try to find solutions, are now a valuable asset to societies struggling with unrestrained consumerism and anthropo-pressure.

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# The Influence of New Public Governance on the Development of Distributed Leadership in Educational Institutions

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**Abstract**: Distributed leadership is the idea that has been much discussed in the last decade. Meanwhile, the main problem of modern public governance evolutionary process is transformation from new public management to new public governance. The aim of the paper is to reveal the influence of new public governance and its implementation in practice on the development of distributed leadership in educational institutions. Based on theoretical research data, it is possible to state that currently, distributed leadership is the dominant idea of management. Lithuanian legal documents, the administrative environment, and specifics of institutions' activity create vast possibilities for development of distributed leadership in these organisations. The ideas of new public governance and distributed leadership of educational institutions are closely interlinked, as both are characterized by the following factors: decentralized management, collegial organizational structure, leadership as interaction. They both face similar challenges, i.e. the problem of "empowering" society / community, the issue of responsibility and accountability. The implementation of leadership ideas in Lithuanian educational institutions is not strictly regulated. Therefore, each organization can independently make decisions in order to optimize the decisions of the organization, or to take no action if the obvious organizational and structural changes in the organization are not required by the institutions controlling the activities of educational institutions.

**Keywords**: distributed leadership, educational institution, head, management, new public governance.

## Introduction

The Lithuanian Progress Strategy "Lithuania 2030" (National Progress Strategy…, 2013) emphasizes the necessity for the whole Lithuanian society to change in order to become the country of smart society and economy, smart governance promoting leadership. According to D. Dambrauskiene and L. Liukineviciene (2017), these strategic aspirations result in the necessary changes in the governance of the state and the public sector that meets the needs of society and efficiently uses resources. The educational sector is not an exception, where, in implementing this strategy, a closer concentration of human resources, more active employment of the resources of the organization and local community, other organizations that can contribute to the achievement of the goals are important. The changing environment not only changes the goals of public sector, but also changes the attitude towards the leaders of public sector organizations, their role in the organization and local community. A number of amendments and supplements, which have strengthened the role of the communities of educational institutions, and which have changed the role and position of the heads of educational institutions, have recently been carried out in the Law on Education of the Republic of Lithuania (Law on Education, 1991). They have established the new regulations for the assessment of the activities of heads of state (except higher education) and municipal schools, deputy-heads for education, heads of the departments organizing education, the five-year term of office of heads has been introduced. Under the change of state regulatory acts, the individual organizations have to change as well. In order to achieve sustainable change in educational organizations, only the leadership of the heads of educational institutions is no longer sufficient. The need for other type of management culture in educational institutions is becoming relevant: the heads should pay attention to the development of abilities and possibilities not only of their own leadership but also of other members of the community (Valstybine svietimo 2013-2022 metu strategija, 2014; Geros mokyklos koncepcija, 2015). In Lithuania, leadership in educational institutions has been analysed quite comprehensively in the last decade. The project "Time for Leaders", which was initiated by the Ministry of Education and Science, and which has been carried out since 2009 (Lyderiu laikas, 2019), has significantly contributed to the dissemination of leadership ideas in Lithuania. The investigation of leadership in Lithuanian educational institutions is relevant because often these institutions become the main and most important ones in the development of leadership culture not only in institutional but also in local communities.

The idea of distributed leadership has recently been the most researched leadership in educational institutions (Bolden, 2011). Meanwhile, in the past two decades, the researchers of public sector have focused their studies on the transformation of new public management into the analysis of new public governance.

This article aims to answer the question of how the new public governance and its implementation in practice contribute to the development of distributed leadership in educational institutions? **The object of the research**: the distributed leadership of educational institutions. **The aim of the research** is to reveal the influence of new public governance and its implementation in practice on the development of distributed leadership in educational institutions. **The research tasks**:

1. To summarize at the theoretical level the scientific approach to distributed leadership and its specificity in educational institutions.
2. To analyse the legal and administrative possibilities of the development of distributed leadership of educational institutions in Lithuania.
3. To reveal the links of between new public governance and distributed leadership of educational institutions.

## Methodology

The research undertaken for this article is theoretical and based on a study and synthesis of the existing literature on the topic. The scope of the literature consulted includes management literature and articles specifically on distributed leadership and new public governance. The analytical content analysis of theoretical literature and other sources (strategic documents, legal acts, administrative documents) has been chosen for the implementation of the research tasks in order to concentrate and generalize theoretical insights, to find the opportunities for the development of distributed leadership in educational institutions, as well as to discern the new aspects of distributed leadership.

## Results and Discussion

### *The concept of distributed leadership*

The idea of distributed leadership has been very popular for the last few decades. This topic is the object of interdisciplinary research, it is being investigated not only by managers but also by psychologists, sociologists, educologists, and philosophers. According to P. Gronn (2000), for the first time, the term *distributed leadership* was used by C.A. Gibb (1954), who analysed the changes of the processes affected by non-formal and formal groups as well as the differences between *one-person focused leadership* and *distributed leadership*. According to A.L. Hill (2008), although the concept of distributed leadership appeared in the literature in the second half of the 20th century, there were no definitions of this term until the 21st century. Systematic reviews of distributed leadership reveal that the term 'distributed leadership' holds a diversity of meanings, which demonstrate the ambiguity of leadership as a concept (Hill, 2008). According to R. Bolden (2011), the concept of distributed leadership has some common theoretical and practical origins with such concepts as 'shared', 'collective', 'collaborative', 'emergent' and 'co-leadership'. However, according to R. Bolden (2011), there are several essential differences in how these terms are used in different literature, their relative prevalence is different, they vary among countries and sectors. According to R. Bolden (2011), the popularity of the concept of distributed leadership has grown since 2000, especially in the education sector. According to L. Drysdale and D. Gurr (2017), the terms 'collective', 'shared' and 'distributed' leadership are often used synonymously.

According to A. Harris (2010), the popularity of distributed leadership has been empirically grounded, its positive impact on organizational and educational outcomes has been proven, it is characterized by representative and normative power. The concept of distributed leadership in the education sector has been developed by investigating the expression of this leadership in general education schools (Murphy et al., 2009; Harris, 2012; Spillane, 2015).

According to A. Harris (2010), distributed leadership is a form of leadership when the organization is influenced and decisions are made **by several individuals working together**, and not by one person. According to R. Elmore (2000), distributed leadership is when individuals share their skills, competences, and the nature of the work they perform in an organization – **they learn from each other**, **communicate and collaborate**. **The participation of community members in the organization's activities, support**

**for the initiative, involvement in decision-making, the distribution of power and activity among different members of the organization,** formal and informal leaders (Leithwood et al., 2006; Harris, 2010; Duif, Harrison, van Dartel, 2013) are important factors as well. Distributed leadership is **the responsibility and accountability for the individual contribution to collective outcomes** (Elmore, 2000; Duif, Harrison, van Dartel, 2013). Another important aspect in developing distributed leadership in the organization is the high level of trust in employees (Harris, 2012). According to the researchers, the trust in the organization is created by the moral values of its members, attitudes, credibility, repetitive actions, individual relationships and trust-based atmosphere of the organization.

According to K. Leithwood (Leithwood et al., 2006), the result of distributed leadership and its impact on the organization depend on the type of distributed leadership: 1) planned distributed leadership; 2) self-contained distributed leadership; 3) demanded distributed leadership. A. Harris (2010) identified different strategies for distributed leadership: **surface, middle and deep level of distributed leadership.** When the deep level is reached, changes are observed in the organization's culture – the distribution of leadership becomes a working standard. According to T. Duif with colleagues (Duif, Harrison, van Dartel, 2013), seven dominant dimensions of distributed leadership can be distinguished: school structure, strategic vision, values and beliefs, communication and collaboration, decision making, responsibility and accountability, the initiative.

However, according to K. Leithwood (Leithwood et al., 2006), the concept of distributed leadership does not mean that formal management structures, formal leaders in organizations are unnecessary. In the authors' opinion, formal leaders are important, but more important are **horizontal relationships, leadership as interaction, creation of space for other's leadership**. A. Harris (2012) highlights the importance of formal leaders and observes that, in developing the distributed leadership at schools, various changes begin in the head's office. Whether it will be allowed to develop the initiatives of other individuals, or the initiative will be suppressed also depends on formal leaders (Murphy et al., 2009). School administration should foster distributed leadership in the school in order to foster professional learning and implement innovations (Butkevica, Zobena, 2017).

To sum up, it can be stated that organizational structure is important for the development of distributed leadership in the organization; a common strategic vision; the value-based approach of organization community favourable for distributed leadership; professional sharing of skills with each other; communication and cooperation to achieve the goals of the organization; initiative support; high confidence in each other; taking responsibility and accountability for their own activities and collective outcomes; the distribution of power between formal and informal leaders, and so on.

***Legal and Administrative Opportunities for the Development of Distributed Leadership of Educational Institutions in Lithuania***

According to D. Dambrauskiene and L. Liukineviciene (2017), in the documents formalizing changes in the state's educational policy the aspiration is seen to improve organizational management, interaction with local communities, social partners, and other educational institutions. The obvious shift of education policy in Lithuania to the development of leadership, as well as the development of distributed leadership in educational institutions is reflected in the following documents:

**Lithuania's Progress Strategy "Lithuania 2030" (**National Progress Strategy…, 2013) focuses on smart governance, i.e. the development of leadership and management competences in central and local government institutions and communities.

**The National Lithuanian Education Strategy 2013-2022** (Valstybine svietimo 2013-2022 metu strategija, 2014), indicates that the dynamic interaction between educational institutions and the members of society in creating smart society is an essential factor for success. It is emphasized that leadership should involve the abilities of members of education sector and social partners to reach the aim of education, whilst educational management has to become more expedient and communal.

**The Law on Education of the Republic of Lithuania** (Law on Education, 1991) emphasizes the importance of interaction with the community of an educational institution, democratic governance of an institution, cooperation-based relationship, taken transparent decisions, and the information provided for the members of the community. Since 2017, the amendments to the Law on Education have introduced the new requirements for heads of educational institutions: the impeccable reputation of the head of education institution has been emphasized, the five-year term of office has been introduced, and it has been refused of the certification of heads

**The Concept of Good School** (Geros mokyklos koncepcija, 2015) emphasizes that management and leadership have to be shared. It is emphasized that the major part of decisions is made by school's community, its different members manage activities, their personal initiative is promoted. The distributed leadership is emphasised, i.e. the development of leadership skills is promoted at school, giving all members of the community the freedom to show initiative, take responsibility for initiatives, decisions, and their implementation. Leaders involve and promote community to debate, think and act creatively.

In Lithuania, considerable attention is paid to the qualification requirements for the heads of state and municipal educational institutions (except for higher education institutions) (Kvalifikaciniu reikalavimu valstybiniu…, 2011). The individuals who want to be heads of educational institutions have to self-evaluate their competencies at the National School Assessment Agency. The **general competences** of the applicants and the competences in **the field of management** are assessed. Although neither leadership nor distributed leadership is mentioned in these documents, it is evident that the heads face with the requirement that is also featured in distributed leadership (as managerial competences). Considering personal effectiveness, the following factors are emphasized: openness, respect for others, tolerance for social diversity, positivity, responsibility and honesty, initiative and so on. In terms of one more general competence – managing people, the ability to form and manage teams is mentioned, to work in a team, the ability to encourage and delegate, the ability to motivate and inspire, the ability and willingness to educate people, to reveal their potential, to provide support. Moreover, one of the management competences – management of education and learning covers the community, strengthening of its provisions, and the joint implementation of strategies. This raises the need for distributed leadership in the educational institutions.

In conclusion, it can be stated that these normative legal documents, indicate the state's desire to conduct the changes of values in educational institutions, to strengthen the role of communities in the management of organizations, and to change the culture of management of educational organizations. This external change is a prerequisite for organizational leaders to change the culture of organizations. However, the implementation of leadership ideas in Lithuanian educational institutions is not strictly regulated. It enables each organization to purposely engage in strategic actions at micro level in order to achieve the most optimal decisions in a particular organization, or take no actions, and only simulate changes if the institutions coordinating the activities of educational institutions or the community itself do not require a clear cultural and structural change in an organization.

***The Interfaces of New Public Governance and Distributed Leadership of Educational Institutions***

In the decision making by new public governance the need for a consensus and each individual's participation dominate as well as common values, goals, forms of formal and informal power, involvement of various stakeholders in service creation, service and loyalty to the institution. Then in terms of distributed leadership in educational institutions, the same factors dominate as well.

Considerable attention during the development of public administration models has to be given to the qualification requirements for employees and especially for heads, the assessment of their competencies. However, the formation of conditions for the development of other individuals' initiatives changes the role of the formal leader in the organization. The basis of value-oriented organization is recognition of any value and any style of behaviour; therefore, harmonization of values plays a significant role in development of an organization (Ivanova, Ignatjeva, 2018).

A similar approach to mutual interaction, decision making, organizational culture, management hierarchy, responsibility/accountability and head's role can be seen in new public governance and features of distributed leadership (Table 1). As noted by D. Dambrauskiene and L. Liukineviciene (2017), the formation of a new organizational culture begins when the head assesses the existing culture by comparing it with the desired new organizational culture, and later transforming the culture: by developing and supporting the leadership of teachers and further by leading the distributed leadership (Figure 1). The statistical data provided on the website of the National School Assessment Agency (which conducts the assessment of the candidates for the heads of educational institutions) shows that from the 1st January 2017 until the 6th February 2018, the evaluations of competences of 393 individuals who aimed to be the heads of educational institutions were conducted. Only 86 candidates (i.e. 22 per cent) met the requirements of a sufficient level (Nacionaline mokyklu vertinimo…, 2018). Even the heads who already have managerial experience and qualification category barely overcame the assessment of competences: the competences of the heads who have the third qualification category were rated at a satisfactory level – 27 per cent, the competences of the heads with the second category – 38 per cent, and the heads who have the first qualification category (the highest) – 62 per cent.

Table 1

**The comparison of the features of new public governance model and the features of the distributed leadership in educational institutions**

| | Features of new public governance | Features of distributed leadership |
|---|---|---|
| **Mutual interaction** | Constructive interaction, active community | Professional sharing of available skills with each other, learning from each other, communication and collaboration |
| **Decision making** | Involvement of employees in decision-making, their "empowerment" | Each individual's participation in the organization's activities and decision-making, initiative support |
| **Organizational culture** | Collegial. Democracy, openness, transparency, pluralism, citizenship, lack of corruption | Collegial. High confidence in each other. Distribution of activities among different employees of the organization |
| **Management hierarchy** | The power of the head is dispersed | The power of the head is dispersed |
| **Responsibility/ accountability** | Accountability, cross-sectoral social responsibility | Responsibility and accountability for individual's contribution to collective outcomes |
| **Head's role** | Head's function is to coordinate | Leadership as interaction. Horizontal relationships |

Source: Compiled according to R.F. Elmore (2000); K. Leithwood (Leithwood et al., 2006), A. Harris (2010); T. Duif, Harrison Ch, N. van Dartel (Duif, Harrison, van Dartel, 2013)

The competence of strategic thinking and management of changes was rated the lowest. Obviously, there is a lack of coherence between the requirements for heads' qualification categories and the criteria for the assessment of heads' competences. Therefore, the question arises whether the requirements for candidates are timely and match the maturity not only of the individual candidates, but also the maturity of all the community of educational institutions.

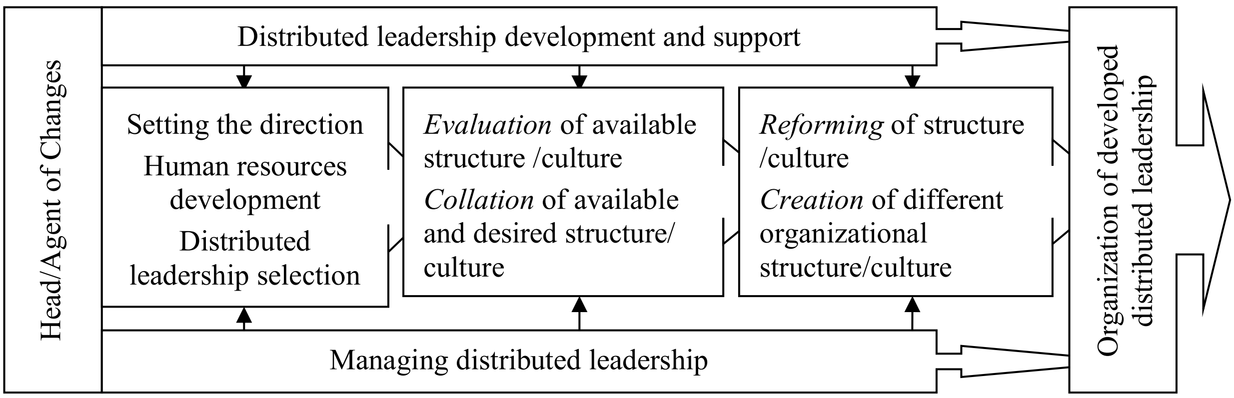


Figure 1. The development of heads' distributed leadership in an organization, created by D. Dambrauskiene and L. Liukineviciene (2017).

The new public governance focuses on the decentralization of government, the involvement of all stakeholders in decision-making. The importance of institutions, local communities, and other stakeholders is also reflected in the Concept of Good School (Geros mokyklos koncepcija, 2015). It states that the concept is intended not only for pupils, teachers, school heads, institutions implementing the rights and responsibilities of ownership of schools, but also for pupils' parents, the whole society. The Concept of Good School aims that a vision and strategy of the school would be created by school staff, pupils and their parents, as well as by local community and the institution implementing the rights and responsibilities of school ownership, everyone has to take responsibility for the implementation of the goals. The emphasis is placed on strong relationships between pupils' parents and teachers, and this ensures the implementation of educational goals. The Concept of Good School states that any member of the school community can be the initiator and leader of activities and events. Attention is paid to distributed leadership: the majority of the decisions are made by the school community, the activities of which are led by its various members, as well as personal initiative is promoted (Geros mokyklos koncepcija, 2015).

The Law on Education (Law on Education, 1991) stipulates that the highest authority of educational institutions is the school council which consists of pupils, teachers, parents (guardians, caretakers) and representatives of the local community. The school council, in accordance with the competence defined in the school regulations, makes decisions, influences the decisions made by the head, and conducts the public supervision of school management. However, the issue of liability of the institution's council remains unclear, it is not defined neither in the Law on Education of the Republic of Lithuania nor in the regulations of the institutions or in other legal documents. In this case, as R. Xu, Q. Sun, W. Si (2015) observe, there is a conflict between decentralization of management and accountability as well as responsibility at the same time. Although legal documents regulate and emphasize the importance of the community in addressing the management issues of educational institution, the question arises whether these institutions face the challenge highlighted by J. Torfing and P. Triantafillou (2013), i.e. whether the community of the institution actively and willingly participates in a decentralized process of management.

To summarize, the ideas of new public governance and distributed leadership of educational institutions are closely linked. There are a number of common features of new public governance model and distributed leadership of educational institutions, such as: decentralized management, collegial organizational structure, leadership as interaction. Similar challenges are observed as well: the issue of "empowering" society / community, responsibility and accountability.

## Conclusions

Currently, distributed leadership is the dominant idea of management and is characterized by the following features in an organization: the participation of all employees in the activities of the organization, professional sharing of available skills with each other, learning from each other, communication and cooperation to achieve the goals of the organization, high confidence in each other, taking responsibility and accountability for their own activity and collective results, participation in decision-making, distribution of power and activity among formal and informal leaders. The competences of formal leaders are very important in the development of distributed leadership in educational institutions. It depends on formal leaders, whether the appropriate conditions will be created for the manifestation of leadership of employees.

The new normative legal documents outlining the strategic direction of Lithuania and providing the guidelines for the state education system show the state's aim to change the Lithuanian educational system, i.e. to conduct the changes of values in educational institutions, to strengthen the role of communities in the management of organizations, and to change the culture of management of educational organizations. However, the implementation of leadership ideas in Lithuanian educational institutions is not strictly regulated. Therefore, each organization can independently make decisions in order to optimize the decisions of the organization, or to take no action if the obvious organizational and structural changes in the organization are not required by the institutions controlling the activities of educational institutions. However, in case formal leaders are not interested in implementing the ideas of distributed leadership in their organization, on the basis of normative legal documents, the community itself has an opportunity to require cultural and structural changes in the organization.

The ideas of new public governance and distributed leadership of educational institutions are closely interlinked, as both are characterized by the following factors: decentralized management, collegial organizational structure, leadership as interaction. They both face similar challenges, i.e. the problem of "empowering" society / community, the issue of responsibility and accountability.

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# Prospective Hospitality Business Managers' Sociocultural Competence within the Context of Social and Cultural Environments

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**Abstract**: Ecological paradigm in education actualizes the significance of managers' interaction with ***study environment*** within the development of their competitiveness, where study environment is formed by university education and companies as the environment of professional activities. Therefore, one of the conceptual approaches in the research is ***ecological approach*** within the study process. On the basis of ecological approach there are several contexts identified in the environment of hospitality professional activities, there has been ***the context of social and cultural environments*** viewed in the article within the substantiation of ***sociocultural competence***. The aim of the study was: to substantiate and, during the pedagogical experiment, to evaluate empirically university hospitality students' sociocultural competence as a component of competitiveness within the context of social and cultural environments. In order to find out how significantly has changed the self-evaluation of students' sociocultural competence component after the approbation of the model of the dual study environment of a higher education institution that transforms and facilitates the development of the competitiveness of prospective hospitality business managers, both before and after the pedagogical experiment the students performed the self-evaluation of sociocultural competence component by using the authors' developed competitiveness evaluation methodology. The conclusive statistics of Wilcoxon test shows that after the approbation of competitiveness facilitation model, in 17 indicators out of 28 indicators of the Latvia University of Life Sciences and Technologies hospitality students' self-evaluation sociocultural competence component there are statistically significant changes.

**Keywords**: hospitality business manager, competitiveness self-evaluation, sociocultural competence, university education.

## Introduction

Ecological paradigm in education actualizes the significance of managers' interaction with ***study environment*** within the development of their competitiveness, where study environment is formed by university education and companies as the environment of professional activities. Therefore, one of the conceptual approaches in the research is ***ecological approach*** within the study process, including organization of practical training, by facilitating the prospective hospitality business managers' competitiveness, including the readiness to the professional activities within the changing environment of hospitality sphere.

The environment of professional activities in hospitality has many aspects; each aspect enables the prospective hospitality business manager to discover his or her creative potential, to self-develop and self-organize both in the humanitarian and analytical fields. The hospitality environment is related to both entrepreneurship – business, political and legal issues, the advanced technologies – and social environment, society – and the consumers of hospitality services. Thus, the development of a competitive specialist takes place, firstly, in the study environment, where a human rational individual transforms into a spiritual personality who is able in the competitive environment changed according to his laws to take the optimal decisions for the benefit of his own and the society; secondly, the above mentioned development takes place in the environment of hospitality professional activities, while interacting with this multi-component environment, and at the same time while being an element and creator, transformer of the components of the environment.

Environment of hospitality business is very specific, therefore it is necessary to substantiate the concept ***competence of the environment of professional activities***, because competence develops through the cognition of the environment of professional activities, through diverse activities in this multidimensional environment of professional activities, as well as through the development of the environment-friendly thinking, by showing environment-friendly and responsible actions through one's own professional activities. Secondly, on the basis of ecological approach, in the environment of hospitality professional activities the authors of the article see and identify several contexts that are continuously interacting and influencing each other by overlapping and supplementing each other. In this article there will be viewed ***the context of social and cultural environments*** in the substantiation of ***sociocultural competence***. *The aim of the research:* to substantiate and, during the pedagogical experiment, to evaluate empirically university hospitality students' sociocultural competence as a component of competitiveness within the context of social and cultural environments.

**Methodology**

The research was carried out at the Latvia University of Life Sciences and Technologies (hereafter – LLU), Institute of Education and Home Economics, where competitiveness self-evaluation methodology of prospective hospitality business managers was developed and the model of the dual study environment of a higher education institution that transforms and facilitates the development of the competitiveness of prospective hospitality business managers was approbated, and at the Faculty of Food Technology, the Nutrition Department, where the experiment took place. The 22 4th year undergraduate students of the study programme Catering and Hotel Management (hereafter – CHM) were invited to participate in the experiment.

The pedagogical experiment consisted of several stages:

- the selection of experimental group and control group participants;
- the first self-evaluation of experimental group participants' competitiveness, incl. component of the sociocultural competence, summarizing of obtained data, primary mathematical processing of obtained data;
- approbation of the prospective hospitality business managers competitiveness facilitation in the study environment models (Figure 1) in the experimental group;
- the repeated self-evaluation of experimental group participants' competitiveness, incl. component of the sociocultural competence, summarizing of obtained data, primary and secondary mathematical processing of obtained data, analysis and evaluation of the results.

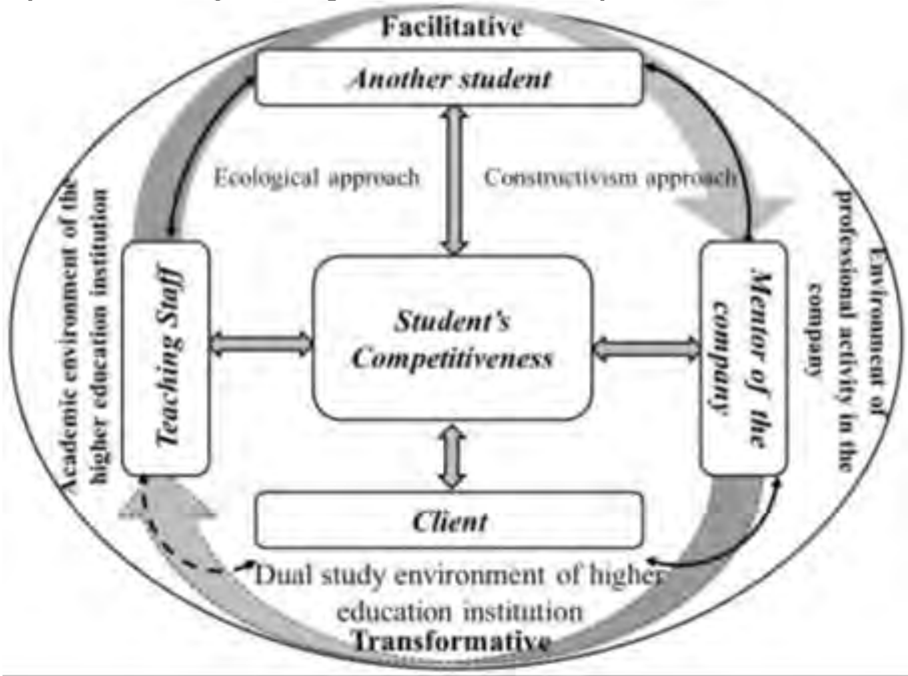


Figure 1. The model of the dual study environment of a higher education institution that transforms and facilitates the development of the competitiveness of prospective hospitality business managers.

In order to find out, how significantly has changed the self-evaluation of students' competitiveness, including sociocultural competences, after the approbation of the model of the dual study environment of a higher education institution that transforms and facilitates the development of the competitiveness of prospective hospitality business managers, the students of experimental group self-evaluated their competitiveness both before and after the pedagogical experiment. The results of both evaluations were compared after the experiment in order to identify differences (Figure 2).

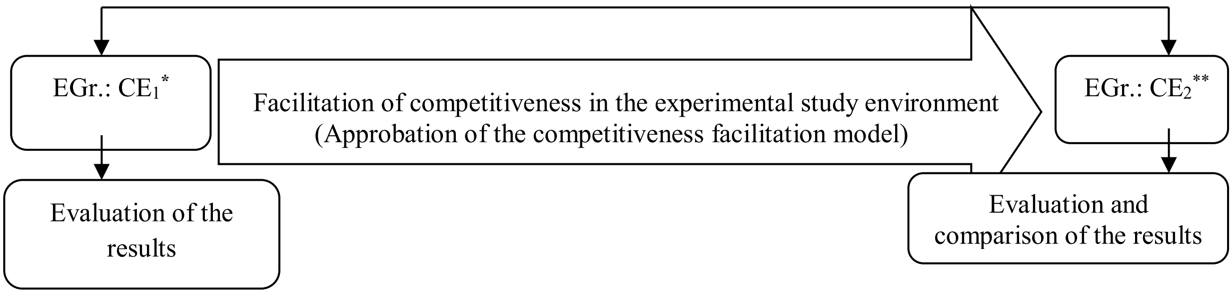


Figure 2. The competitiveness development of the experimental group of prospective hospitality business managers in the experimental study environment.

* EGr.: $CE_1$ the first self-evaluation of experimental group participants' competitiveness, including component of sociocultural competence;
**EGr.: $CE_2$ the repeated self-evaluation of experimental group participants' competitiveness, including component of sociocultural competence.

Wilcoxon Test (SPSS 21.0 software) was used to identify differences and to obtain the conclusive statistics.

## Results and Discussion

***Theoretical description of sociocultural competence***

Prior to this experiment, competitiveness self-evaluation methodology of prospective hospitality business managers was developed. It was based on the preliminary developed and scientifically grounded the competitiveness structure model of prospective hospitality business managers, where *competence of the environment of professional activities* is very essential.

*Competence of the environment of professional activities.* Ecological approach in educational research emphasizes *environment* as the central category. Concept *environment* is defined differently. In Oxford dictionary of sociology (Scott, 2015) the environment has been explained as social context, where an individual (or just a living organism) exists; the emphasis is put on his adaptation to this environment. But in Oxford dictionary of ecology (Allaby, 2015) the environment is defined as outer conditions, where the organism lives. The environment comprises social, cultural, economical and political conditions.

It is important to point out that the competence of the professional activities environment of a student as a prospective specialist is formed and developed within the direct interaction with the multi-contextual and multifunctional environment of professional activities.

Within the context of education to be acquired at the university the environment should be viewed as:

- an integral part of educational subjectivity (which, in its turn, is an environmental component);
- the effect of the implementation of particular educational practice (the condition of which it simultaneously is);
- a differential integrity in the constructed actual educational situations.

In this case the environment should be viewed not like a subjective or objective field, but like a symbolic one. It develops and functions, where different activities take place; as a result, it accumulates this diversity, and everyone who exists in this environment can change own position and a view on situation. Therefore, the scientists emphasize that environment should not be viewed outside those situations, where they are generated, and those effects it is generating (Korbut, 2004). Besides, the transformation of prospective specialists' identity and experience, as a developmental base of competitiveness, takes place in the study environment.

In the document of the European Qualifications Framework for Lifelong Learning (The European Qualifications…, 2008) there are competence-based educational qualifications described, where competences have a special role within the educational education (in the performance definition).

Scientists R. White (White, 1959), J. Giesecke and B. McNeil (Giesecke, McNeil, 1999), F. Delamare Le Deist and J. Winterton (Delamare Le Deist, Winterton, 2005), R. Bolden and J. Gosling (Bolden, Gosling, 2006) emphasize that ***the manager's competences shall be adjusted to the environment,***

***where they act, because environment influences the manager abilities to fulfil his duties, as well as to delay what has been expected from him.***

Thus, the prospective hospitality business manager develops as a professional ***within the mutual interaction with environment,*** namely:

- within the environment of professional activities there is developed, improved the specialist's competitiveness, including competence of the environment of professional activities according to the environmental specificity;
- at the same time – depending of own professionalism (including competence of the environment of professional activities, creativity, flexible thinking etc.) the specialist is able also to improve and perfect the environment of own professional activities by introducing innovations, novelties, becoming the initiator of everything new, an innovator, and, as a result of the sharing of experience, the best practice is popularized and spreads in the professional environment.

The authors of the article substantiated the competence of the environment of professional activities as complicated, whole totality of several sub-competences, which manifests through different types of abilities to perform independently and responsibly the functions of different types of professional activities resulting from many contexts of the environment of professional activities.

Thus, competence of the environment of professional activities (Figure 3) consists of several sub-competences, including sociocultural competences. The emphasized environmental contexts (Figure 3) result from the authors' reflection on the experience for many years obtained in the fields of education and hospitality and on the scientific literature studies: social and cultural environment; hospitality technologies environment; information and communication technologies environment; business technologies; legal environment.

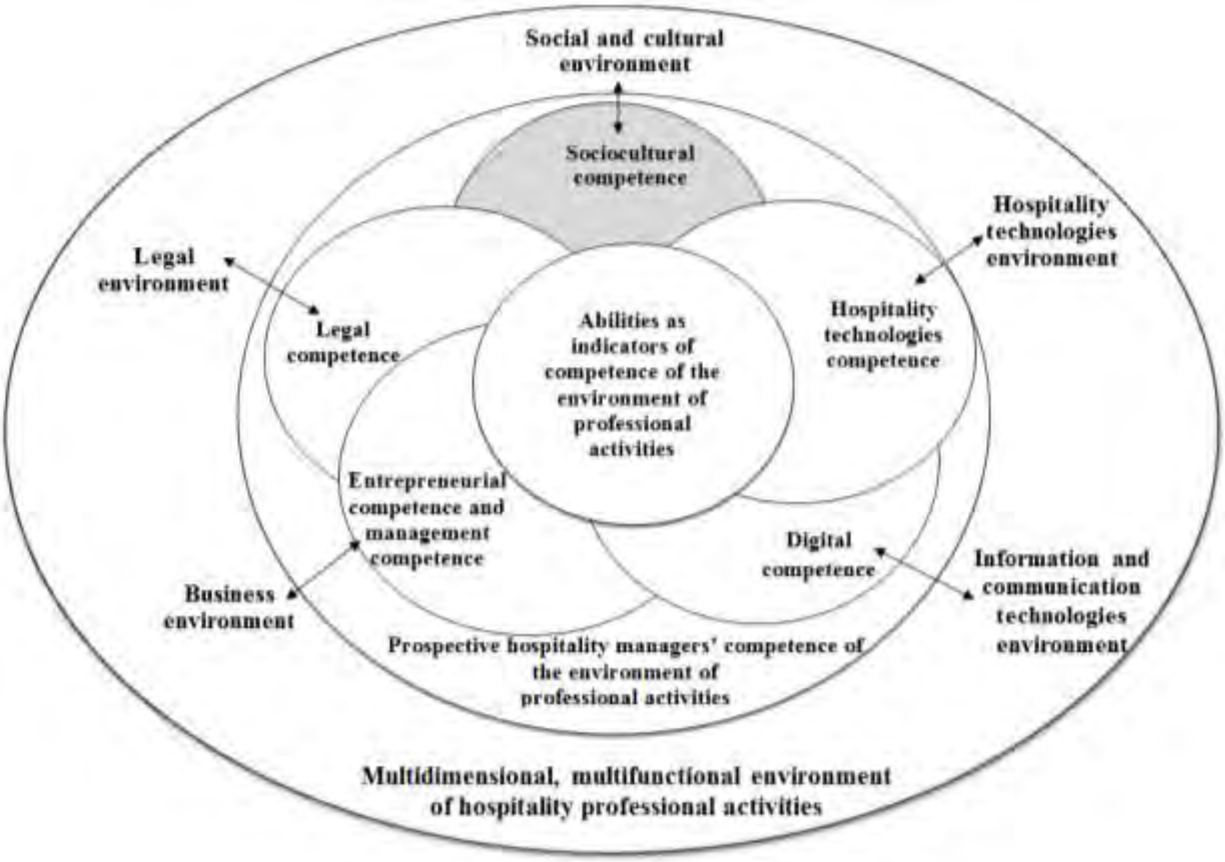


Figure 3. Sociocultural competence in the structure of competence of the environment of professional activities of the prospective hospitality business manager.

In this article there are published the results of theoretical and empirical research in relation to one of the components of prospective hospitality business managers' competence of the environment of professional activities - sociocultural competence within the context of social and cultural environment. 28 indicators of the prospective hospitality business managers' self-evaluation methodology (Iriste, 2018), which constitute only an insignificant part of competitiveness self-evaluation indicators, enable to evaluate prospective hospitality business managers' sociocultural competence according to different aspects.

***Social and cultural environments as the context of the formation and development of sociocultural competence: the results of theoretical research***

There are two types of functions essential for hospitality business managers: to work with own employees by providing different types of support, as well as they shall be oriented towards the client – the consumer of products/services. Thus, the hospitality business managers need the client servicing orientation, team-work, which could be developed through professional activities, education and integration into social and cultural environment.

Social and cultural environment is explained as a complex structure of social, material spiritual circumstances, where the individual's life activities are implemented (Masovic, 2018). While living in this multidimensional space, the personality formation process takes place, the personality develops through the interaction with other individuals, natural factors and cultural values. The environment influences the development of personality considerably, but as a result of an individual's actions the environment changes itself.

A hospitality business manager has a significant role for the facilitation of ensuring sustainable environment, because the ecological human resource management (Yoon, Jang, Lee, 2016; Kim et al., 2019), *the green climate of a company* (Chou, 2014) improves the employees' nature-friendly and society-friendly, sustainable thinking and actions.

In their turn, the processes that take place in the social environment (thinking, actions) can be understood only within the context of particular culture, because the cultural and historical environment:

- specifically activates archetypes dominating in the society;
- develops value, cognitive systems;
- creates models of social relations etc.

As a result of a human direct/indirect transformation of the world, nowadays an individual life in two worlds simultaneously – in the natural environment and in the human-made environment, where an individual's ability to adapt to social or human-made environment – knowledge of legal and political, economical field, psycho-emotional skills etc. - becomes more and more important. Since the hospitality companies often function in the buildings – cultural and historical monuments, next to natural objects – the specialists working at such places shall be able to adapt to both natural and human-made environment; they shall find balance between their interests, while being a manager of a hospitality company, and the interests of society in general.

This may be implemented by developing the communicative culture of those working in hospitality sphere; the communicative culture is a precondition for the effectiveness of professional activities, because the sphere of service provision is very specific – the human interaction in the environment of these activities takes up more than 90% of working hours (Makarova, 2012). The prospective hospitality business manager's communicative culture can be seen as a component of the specialist's professional culture that comprises knowledge, norms, values and models of conduct accepted by society and as an ability to apply them through business and emotional communication.

American sociologist T. Parsons (Parsons, 1977) indicates that the communication process is a precondition for the development of all social systems, because it ensures the connection among people and groups, organization of joint activities, division of labour.

Thus, the aim of communication, and also the result, is determined by social environment and culture (Lasswell, 1948). French sociologist E. Durkheim and American sociologist T. Parsons, the developer of Durkheim's ideas, indicate that an individual ***interiorizes*** the social values and norms (Durkheim, 1958; Parsons, 1977). The process of exteriorization also takes place, when an individual introduces new values to society. However, nowadays it does not always happen, because there is a cultural system situated above the personality as a system. According to the scientists' point of view, the cultural system is the most important controller of personality; it provides beliefs, values and norms of conduct necessary for the survival of an individual in the particular society.

French anthropologist, philosopher and sociologist P. Bourdieu (Bourdieu, 1984) introduces the concept *habitus* by which scientist denotes *semi- automatically, partially intentional style of conduct* that is developed as a result of experience. He points out that an individual's action always takes place under the circumstances of instability, where the models of conduct provided by culture do not function efficiently. Therefore, a human being, through improvisation, acts strategically – within the limits of cultural beliefs, knowledge; however, he violates the rules.

Sociocultural competence is an instrument for the education of internationally oriented personality who will be aware of global interdependence and unity, necessity for cooperation to deal with the global problems of humankind (Rakhimova, 2017; Zygaitiene, Numgaudiene, 2016). Because only in such manner it will be possible to implement 17 sustainability principles of United Nations (17 goals to..., 2015), where there is indicated the necessity to deal with such problems as the increase of the efficiency of production resources without degrading the environment, the reducing of food waste – very many hospitality companies of Latvia shall participate in dealing with this problem, as well as there has been indicated the necessity to facilitate sustainable tourism.

As a result of research, it is possible to say that the sociocultural competence is an ability to apply knowledge, skills and experience by showing responsible attitude for ensuring successful communication in the particular social and the cultural environment. The prospective hospitality business managers shall be able to communicate in different environments and at the same time to be empathic, tolerant; they shall be able to overcome prejudices, to find compromises, to understand different views within the context of particular social and the cultural environment, to be ready for a dialogue. They shall be stress-enduring, to be able to divide the personal sphere from the professional one. Through overcoming different difficulties and obstacles, development of abilities and amassing individual experience, there is improved also the prospective hospitality business managers' competence as a component of the competence of the environment of professional activities within the structure of competitiveness.

***Pedagogical experiment: results of empirical research***

Based on authors' developed and scientifically substantiated competitiveness self-evaluation methodology of prospective hospitality business managers, the competence of the environment of professional activities can be evaluated using 95 indicators; 28 of these indicators were attributed to the self-evaluation of the sociocultural competence, which is one of the 5 sub-competencies (competence of hospitality technologies, digital competence, entrepreneurial competence and management competence, legal competence) in the structure of competence of the environment of professional activities (Iriste, 2018). The system of these indicators was based on:

- developed and scientifically grounded the competitiveness structure model of prospective hospitality business managers as a result of theoretical research;
- decision No. 209 of 26 June 2013 on the accredited study direction *Hotel and Restaurants Service, Tourism and Recreation Organization* in conformity with which there is being implemented LLU Faculty of Food Technology Nutrition Department Professional Bachelor study programme CHM.

In order to find out how significant changes have taken place comparing self-evaluation indicators of sociocultural competence component within representative sample of the experimental group (22 4$^{th}$ year undergraduate students of the study programme CHM) before and after approbation of the model of the dual study environment of a higher education institution that transforms and facilitates the development of the competitiveness of prospective hospitality business managers, secondary mathematical processing of the obtained data was carried out using the Wilcoxon test SPSS (21.0) software.

During pedagogical experiment there have been statistically significant changes in 17 indicators from 28 in *the sociocultural competence* component (p-value=0.000...0.049), besides, very significant changes have taken place in indicators 8, 14 and 20 that shows the high level of students' tolerance towards the representatives of different age, sex and ethnical minorities (Table 1).

But statistically insignificant changes (p-value=0.050...1.000) have taken place in the case of 2 sociocultural competence indicators: indicator 1 (p-value=0.857) – the ability to integrate into a foreign company and indicator 10 (p-value=0.797) – knowledge of foreign languages (Table 2).

Table 1

**The essentiality of the changes of sociocultural competence self-evaluation**

| Indicator No. | Self-evaluation indicators of sociocultural competence | Wilcoxon test p-value | Conclusions | Self-evaluation coefficients of competence | |
|---|---|---|---|---|---|
| **Statistically significant changes (p-value = 0.000 ... 0.049)** | | | | **Before experiment** | **After experiment** |
| 8. | I have amassed rich experience regarding different social roles that helps me to socialize and fulfil my professional duties. | 0.002 | very significant differences | 0.62 | 0.88 |
| 14. | I can develop and maintain a dialogue with the representatives of different age, culture and social groups. | 0.008 | very significant differences | 0.63 | 0.84 |
| 20. | In my professional performance I am able to disassociate myself from different types of stereotype in relation to the ethnic minorities and to be tolerant towards a representative of any nationality. | 0.002 | very significant differences | 0.65 | 0.89 |

Besides, the self-evaluation coefficient (0.75) of indicator 1 was at high level already before the experiment, but foreign languages cannot be completely mastered within a year, therefore the increase of self-evaluation coefficient before (0.63) the pedagogical experiment and after it (0.65) is insignificant.

Table 2

**The essentiality of the changes of sociocultural competence self-evaluation**

| Indicator No. | Self-evaluation indicators of sociocultural competence | Wilcoxon test p-value | Conclusions | Self-evaluation coefficients of competence | |
|---|---|---|---|---|---|
| **Statistically insignificant changes or statistically significant coincidence (p-value= 0.050 ... 1.000)** | | | | **Before experiment** | **After experiment** |
| 1. | Ability to include in unknown social environment. | 0.857 | good coincidence | 0.75 | 0.77 |
| 10. | Knowledge of several languages. | 0.797 | good coincidence | 0.63 | 0.65 |

Very high self-evaluation coefficient of sociocultural competence after the pedagogical experiment is in several indicators: 2 - good communication skills – 0.89, 6 – ability to work in a team – 0.83, 23 – in knowledge about own country and culture of own nation 0.73 (Table 3).

Table 3

**The changes of sociocultural competence self-evaluation coefficients**

| Indicator No. | Self-evaluation indicators of sociocultural competence | Self-evaluation coefficients | |
|---|---|---|---|
| | | **Before experiment** | **After experiment** |
| 2. | I have good interrelation, including communication, skills. | 0.79 | 0.89 |
| 6. | I can work in a team, even if the team is led by another person. | 0.74 | 0.83 |
| 10. | Knowledge of several languages. | 0.63 | 0.65 |
| 15. | At the company I was able to organize and run a seminar for sharing experience, a field trip and other events. | 0.37 | 0.64 |
| 23. | I know well the culture of our country and my nation and I can use my knowledge for professional purposes. | 0.65 | 0.89 |
| 26. | My competitiveness is characterized by client-centred thinking and performance. | 0.57 | 0.69 |

The high level of the self-evaluation coefficients of other indicators shows the high level of the development of this competence in participants of experimental group. The self-evaluation coefficients of only three indicators out of 28 after the pedagogical experiment are below 0.70 (these are the following indicators: 10, 15 and 26).

## Conclusions

- The prospective hospitality business manager develops as a professional within the mutual interaction with environment, namely: within the environment of professional activities there is developed, improved the specialist's competitiveness, including competence of the environment of professional activities according to the environmental specificity; at the same time – depending of own professionalism (including competence of the environment of professional activities, creativity, flexible thinking etc.) the specialist is able also to improve and perfect the environment of own professional activities by introducing innovations, novelties, becoming the initiator of everything new, an innovator, and, as a result of the sharing of experience, the best practice is popularized and spreads in the professional environment.
- The prospective hospitality business manager's competence of the environment of professional activities is an integral totality of several competences (competency) that manifests through several abilities to perform independently and responsibly many functions the environment of professional activities, where there could be identified several environmental contexts.
- The conclusive statistics of Wilcoxon test SPSS (21.0) shows that after the approbation of model of the dual study environment of a higher education institution that transforms and facilitates the development of the competitiveness of prospective hospitality business managers, in 17 indicators out of 28 indicators of LLU CHM students' self-evaluation sociocultural competence component there are statistically significant changes (p-value=0.000...0.049); besides, three indicators reflect very significant changes in the students' self-evaluations. But statistically insignificant changes (p- value=0.050...1.000) have taken place in the case of 2 sociocultural competence indicators.

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# Professionalism as Viewed by Urban and Rural Teachers in Latvia and Russia: Analysis of Structural Components of Teacher Professional Identity

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**Abstract**. The present study is a part of the Latvian-Russian research on teacher professional identity. The study is focused on the structural components of teacher professional identity that relate to teachers' understanding of professionalism: Professional Knowledge and Skills, Professional Roles, Professional Attitude to Work. In the international survey carried out in 2017 ($N$ = 433) the questionnaire "Professional Identity of School Teacher" was used. The obtained data were subjected to statistical processing (average score, dispersion, coefficient of variation, mode, Mann-Whitney criterion indicator, Spearman correlation coefficient were calculated). The data of the two samples (Latvian – Russian) and of the four subgroups (urban – rural teachers) were compared. The aim of the article is to study the modern school teachers' understanding of the content of the concept "professionalism" and reveal differences in views and professional intentions of urban and rural teachers from two national samples. The analysis shows that compared with urban colleagues, rural teachers have closer contacts with students and are more involved in the educational process. At the same time, it is more difficult for them to present their achievements and experience to the teaching community; besides, they have problems with research activities. The difference between the national samples in the degree of the involvement in the educational process and interaction with students' families in this process is revealed.

**Keywords:** professionalism, school education, teacher professional identity.

## Introduction

The interrelated concepts of teacher professionalism, teacher professionality, and teacher professional identity are in the focus of many modern pedagogical studies (Hsieh, 2014; Briska, Kaleja-Gasparovica, 2017). The teacher professional identity (TPI) can be considered as the nucleus of professionalism (Voinea, Palasan, 2014; Whitty, 2008). In the last 20 years TPI have been intensively studied in psychological and pedagogical science; now it seems evident that a stable and strong professional identity is the key to success in modern pedagogical work (Olsen, 2016).

TPI is studied in many directions: the essence of TPI is analysed (Bukor, 2011; Mikelsone, Odina, Grigule, 2014); various approaches are proposed to determine the content of TPI (Hsieh, 2014; Medveckis, 2016); the formation and development of TPI is investigated (Vangrieken, Meredith, Kyndt, 2017; Aykac et al., 2017); the interdependence of TPI and work efficiency is examined (Delima, 2015; New Teachers already…, 2015); changes in TPI related to educational reform, which is currently underway in many countries, are traced (Buchanan, 2015). The authors of psychological and pedagogical research agree that TPI implies functional and existential correspondence between person and profession; it includes understanding of the profession, self-acceptance in the profession, and ability to perform the professional duties well. Professional identity is considered as the basis of person's mental development and is characterized by highlighting the following factors: motives for choosing the profession; special features of individual development; features of development of personality as a subject of professional activity; self-assessment of capabilities; system of professional values; awareness of the interaction of the requirements of the profession and personal characteristics.

The content of TPI is the central theme of the international project "Professional Identity of a Modern Teacher", which since 2013 has been carried out by a group of researchers - A. Shpona, M. Vidnere, J. Jermolajeva from Latvia and T.V. Bogdanova, S.V. Silchenkova from Russia (Shpona et al., 2016). In the implementation of the project a six-component structural model of TPI was proposed and a technique was elaborated for its approbation. Being a part of this project, the present study is focused on the three of six structural components of TPI that relate to teacher professionalism: Professional Knowledge and Skills, Professional Roles, and Professional Attitude to Work. These three components are connected with the performance of direct professional duties (first of all work in the classroom and appropriate relationship with students). *The aim of this article* is to study the content of the concept of teacher professionalism as reflected by modern school teachers of Latvia and Russia in relation to the territorial type of the educational environment (an urban or rural school).

## Methodology

In the implementation of the project "Professional Identity of a Modern Teacher" a model of the TPI content was created based on the analysis of scientific sources (Emerson, 2010; Woo, 2013). The model includes six structural components: (1) Philosophy of the Profession, (2) Professional Knowledge and Skills, (3) Professional Roles, (4) Professional Attitude to Work, (5) Cooperation with Colleagues, (6) Professionally Determined Social Behavior (Shpona et al., 2016). In this article the components are considered that are directly related to the meanings the teachers give to the concept of professionalism and the intentions of professional activity resulting from them. These are components 2, 3, and 4.

To study the model of the content of TPI, the questionnaire "Professional Identity of School Teacher" was elaborated and international survey was carried out in 2017 in a number of schools of Latvia and the Smolensk region of Russian Federation. The sample was created using typical (stratified) repetition-free method: the general population of school teachers was divided into urban and rural strata, in each stratum the participating schools and individual respondents were randomly selected. Over 20 schools in both national groups participated in the study; the number of the respondents was 437. The characteristics of samples are shown in the Table 1.

Table 1

**Characteristics of Latvian (LV) and Russian (RU) samples of school teachers**

| Characte-ristics Groups | Number of teachers | | Age (mean) | | Work experience, years (mean) | | Education (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Higher | | Specialized secondary | |
| | LV | RU | LV | RU | LV | RU | LV | RU | LV | RU |
| Urban schools | 182 | 96 | 48.4 | 46.7 | 22.8 | 22.8 | 99.4 | 97.9 | 0.6 | 2.1 |
| Rural schools | 53 | 106 | 47.9 | 46.8 | 22.2 | 26.5 | 100 | 90.6 | 0 | 9.4 |
| All | 235 | 202 | 48.2 | 47.0 | 22.7 | 24.6 | 99.6 | 94.0 | 0.4 | 5.9 |

To provide the reliability of the study, statistical methods with the significance level of 0.05 were used. The sample errors are 6.8 % in the Russian national sample and 6.4 % in the Latvian one; they are permissible to consider the samples representative for the corresponding general populations. The questionnaire was tested by Cronbach's Alfa method. In the two national groups and four subgroups of respondents (urban/rural schoolteachers), the obtained Cronbach's Alfa coefficients are in the range 0.77 – 0.97, which suffices to recognize the reliability of the technique.

The questionnaire "Professional Identity of School Teacher" consists of 60 statements (10 statements in each of the 6 blocks corresponding to 6 components of the TPI model). These statements were offered to respondents to be scored in points from 1 ("strongly disagree") to 6 points ("completely agree"). Some of the statements can be seen *in cursive* below in the analysis of the corresponding component. In this study, half of the statements of the questionnaire are analysed.

For each item mean rate, dispersion, standard deviation, statistical mode, and coefficient of variation were calculated for the two national samples and the subgroups of urban and rural schoolteachers (the coefficient of variation up to 33 % testifies that the data are reliable and accurate enough to draw conclusions). Using the Mann-Whitney test, statistically significant differences were checked. Within each block and between the blocks, the Spearman rank correlation coefficients were calculated; the statistically significant correlations were analysed.

## Results and Discussion

In this paper three of the six TPI components are considered: Professional Knowledge and Skills, Professional Roles, and Professional Attitude to Work. The general results for the components taken as a whole are shown in Table 2.

Table 2

**Indicators of 2nd, 3rd, and 4th components of TPI for urban (URB) and rural (RUR) subgroups of Latvian and Russian samples**

| Subgroup / TPI component | Mean value | | Mode | | Dispersion | | Coefficient of variation (*Co*V, %) | |
|---|---|---|---|---|---|---|---|---|
| | URB | RUR | URB | RUR | URB | RUR | URB | RUR |
| **Latvian sample** | | | | | | | | |
| 1. Professional Knowledge and Skills | 4.70 | 4.60 | 5 | 5 | 1.93 | 1.69 | 29.57 | 28.31 |
| 2. Professional Roles | 4.83 | 4.86 | 5 | 6 | 1.41 | 1.43 | 24.61 | 24.58 |
| 3. Professional Attitude to Work | 4.93 | 4.95 | 5 | 5 | 2.03 | 1.13 | 28.92 | 21.50 |
| **Russian sample** | | | | | | | | |
| 1. Professional Knowledge and Skills | 4.61 | 4.74 | 5 | 5 | 1.39 | 1.73 | 25.59 | 27.76 |
| 2. Professional Roles | 4.77 | 4.98 | 5 | 6 | 1.15 | 1.43 | 22.46 | 24.01 |
| 3. Professional Attitude to Work | 4.8 | 4.95 | 5 | 6 | 0.96 | 1.41 | 20.45 | 24.03 |

By the Mann-Whitney U-test, in the TPI components chosen for this article no statistically significant differences were found either between the national samples or between the data of all urban and rural subgroups. However, a detailed analysis of the obtained data makes it possible to find out differences in the reflexive assessment of the certain aspects of professionalism, diversity in attitudes and motives of professional activity between national groups and rural/urban subgroups.

**Professional Knowledge and Skills**

A comparative analysis of the data of urban and non-urban schoolteachers of two national samples reveals discrepancies in the assessments of the statements concerning personal contribution of teacher to the development and updating of pedagogical methods and technologies. In the Latvian sample, there are very few teachers who make own professional achievements and ideas known to the pedagogical community. The corresponding statement "*I have elaborated innovative educational products that have been approbated, recognized by the professional community, or published in educational journals*" has mode 1 ("completely disagree"). Moreover, the answers of the Latvian respondents to this question ate independent of the territorial residence type: mean rates are 3.03 in the urban subgroup and 3.13 and in the rural one; *CoV* are 60.08 % and 58.08 %, respectively. At the same time, some rural and urban teachers have personal contributions to the improvement of teaching and education methods and would like to make it known to colleagues. The statement "*I have a contribution to the improvement of teaching and education methods, but have not been able to let it known to the pedagogical community so far*" has the mode indicator 3 and *CoV* = 38.46 % for rural schoolteachers, and mode 4, *CoV* = 44.28 % for urban teachers (the latter give somewhat more affirmative answers to this question than their rural colleagues).

In the subgroups of urban and rural schools of the Smolensk region, the indicators for these items vary significantly. Urban schoolteachers make their pedagogical contributions known to the professional community more often (mode 4, dispersion 2.39, *CoV* = 44.43 %) than their rural colleagues (mode 1, dispersion 3.22, *CoV* = 62.44 %). At the same time attention is drawn to the fact that, contrary to the Latvian sample, in the Smolensk region the desire to disseminate the own innovative experience is stronger for the rural teachers than for urban ones. It should be noted that in the Russian system for assessment and stimulation of schoolteacher professional activities this is not only a matter of a teacher's personal desire. The status of a teacher and his salary depend on the qualification category obtained in the attestation. According to the instruction developed by the Regional Department of Education, the following requirements are imposed on a teacher for assigning him the high category: "… 4.2. Personal contribution to the improvement of teaching and educational methods (evidence is posted on the Internet resource) … 4.4 Participation in the work of expert groups, jury of professional competitions. … 5.1. – 5.4. Dissemination of experience and practical results of professional activities in her/his educational institution, municipality, region, state" (Materialy po attestazii…, 2016). Theoretically, every rural teacher can do it, but in the modern

Russian society, the opportunities of professional growth of rural teachers are still markedly lower than those of urban teachers. This raises the problem of the professional equality in the Russian teacher community.

**Professional Roles**

The greatest difference between national samples is shown in the respondents' answers to the statements: "Studying students' personalities and acquaintance with their family circumstances are no less important than objective assessment of students' success in a subject" and "Teacher is responsible for the education and development of student's personality no less than her/his parents". The Latvian teachers to a lesser extent than the Smolensk colleagues consider the education/upbringing of students as their duty. They are less willing either to take the same responsibility for this as the students' parents (mode 4 versus 5 in the Russian sample), or delve into their personal and family circumstances (mode 5 versus 6). It is not clear yet, whether this difference is a result of different national systemic approaches and teaching guidelines, or manifestation of the Latvian national mentality feature of emphasized non-interference in the personal and family circumstances. At the same time, it should be noted that in the answers to the questions from the other structural components of TPI (in particular, the component "Philosophy of the Profession") Latvian teachers show more respect for the student's personality and democratic priorities of the educational process than their Russian colleagues. It can be supposed that for Latvian teachers, the priority of personality implies less pronounced educational/upbringing pressure on student (which is left to family if necessary).

The analysis of the data of urban and rural subgroups revealed an important difference between them. In general, the rural teachers of both countries have closer contacts with students, are more involved in the circumstances of their life, and give higher scores to the own professional role as educator (that is, the person, who not only teaches a subject, but cares for student's well-being and harmonious development as well) than the urban pedagogues. The rural teachers are more often ready to take the same responsibility as parents for this aspect of education (mode 6 versus 5 in the Russian rural and urban subgroups; 5 versus 4, relatively, in the Latvian sample). In traditional culture, whose features remained to a greater degree in countryside than in cities (due to rural people closer communication and preserved tradition of collective forms of problem solving), teacher is a respected authority in the field of education/upbringing. At the same time, the rural teachers, highly evaluating their pedagogical mission and taking the task of education of students, less often give high scores to the statement "*I believe it is right that a teacher simultaneously performs several professional roles*". In the Latvian sample, the mode of this item is 4 in rural and 5 in urban subgroup. In each Russian subgroup the mode is 5; however, taking into account the mean rates and *CoV*, the proportion of teachers' views on this matter seems very similar to the Latvian case. It appears that the rural teachers more than their urban colleagues doubt the possibility to effectively perform all the roles assigned to them by the educational system, first of all the roles of subject teacher and educator. Probably, this indicates that they feel a greater responsibility for the education of students.

The professional role "teacher as researcher" received the least support of the respondents. The statement "*I regularly undertake pedagogical research*" has minimal values of mode and arithmetic mean among all other items of the block. In the Russian rural subgroup, the mode of this statement is 3 ("rather disagree"), while in other three subgroups it is 4. Although the mode of this item in the Latvian rural group is the same as in the urban one, other indicators of this issue (mean rate, dispersion and *CoV*) show a similar situation. In the countryside, the roles of subject teacher, educator practitioner, assistant, consultant on the questions of personal development seem more important to the teacher than the roles of observer, theorist, and analyst of the pedagogical process.

**Professional Attitude to Work**

The values of mode and mean rates (giving an adequate representation of teachers' views since *CoV* are not high) show that for the survey participants, honesty and integrity in the performance of work duties is an obligatory quality of pedagogical professionalism; in both national samples the statement "*I honestly perform my professional duties*" has mode 6 ("completely agree"). Compared to the Russian colleagues, the Latvian schoolteachers are more inclined to consider their profession as a vocation: the statement "*The teacher's profession is my vocation*" has mode 6 in both Latvian subgroups, whereas in both Russian subgroups it is 5. At the same time, the correlation analysis shows that from the point of view of the Latvian teachers, pedagogical vocation is primarily connected with the ability to establish equal cooperation between teacher and student; for Smolensk teachers, pedagogical vocation is primarily connected with organizing the cooperation between school and student's family in the process of training and education. To study these differences in views of Latvian and Russian teachers an additional research is necessary.

The schoolteachers of both countries consider the subject-subject relationship between teacher and students ("*I try to make students positively, meaningfully and fruitfully included in the pedagogical process*") as well as methodological skills and creative approach to teaching ("*I systematically experiment with techniques / methods / technologies / approaches in my work*") as important elements of professionalism. At the same time, in all the subgroups of respondents, the mean rates and modes for the subject-subject relationship are higher than those for methodological experimenting: conscious activity of the students in the classroom seems to the teachers more important. The minimal rates for the statement on methodological creativity of teacher were received in the urban subgroup of the Russian sample (mode 4).

Professionals do not restrict their working hours to the time of lessons and preparing to them. They accept the fact that pedagogues have to work much after hours. The mode of the statement "*I am aware that in my profession the working day is non-standardized*" is 5 in both national samples. The maximum readiness to work after hours is shown by the subgroup of rural teachers of the Smolensk region (mode 6); in small communities of Russian countryside, teacher continues to be a teacher outside school. Communication and cooperation with parents of students in the process of education ("*I consider parents of students as colleagues in education students"*) are also the most accentuated in this subgroup (mode 6); probably this factor influences the lengthening of working hours considerably. In Russian countryside professional teacher is a volunteer assistant and consultant of parents in education of children. In the Latvian national sample there is no difference between the rural and urban subgroups for this item (in the both subgroups the mode is 5); the Latvian teachers (as well as the Russian urban teachers) believe that they should cooperate with parents of students, but at the same time they think that teachers, as well as parents, have their own roles and responsibility, which should not be confused.

Participation in students' life and interest to successes and difficulties of graduates are, in general, included in the teacher's understanding of the professional attitude to work: in the two national samples and all the four subgroups the mode of the statement "*I follow the achievements of my students after they finish school*" is 5.

## Conclusions

Compared to their urban colleagues, the rural teachers of both countries have closer contact with students; they are more involved in student's life and give more attention to the student's subjectivity in the pedagogical process. In both countries, very few schoolteachers do pedagogical research. The lack of research work is particularly noticeable among rural teachers.

From the point of view of the Latvian teachers, pedagogical vocation is primarily connected with the ability to establish equal cooperation between teacher and student; for Smolensk teachers, pedagogical vocation is primarily connected with organizing the cooperation between school and family in the process of training and education. The Latvian teachers to a lesser extent than the Smolensk colleagues consider the education/upbringing of students as their duty.

Participation in the life of students and interest to successes and difficulties of graduates are included in the modern teacher's understanding of the professionalism. These aspects of the profession are strongly emphasized in all subgroups.

In the Russian sample, the discrepancy between the answers of rural and urban teachers is greater than in the Latvian one. Russian rural teachers from the Smolensk region give markedly higher rates than their urban colleagues to the importance of teacher's role in the development of student's personality, in stimulating students' intellectual growth and creating a basis for their achievements (which is connected with unequal educational opportunities in the urban and rural social environments in Russia). They attach more significance to new theoretical knowledge and modern theories of education (which signals of shortcomings of the in-service teacher training system). The greater dispersion of rural teachers' answers is due to the more difficult working conditions and lower life standards in Russian countryside.

For rural teachers of the Smolensk region, the problem of unequal opportunities to promote personal pedagogical experience is topical. This inequality hinders the promotion of new ideas and makes it difficult to heighten their qualification category, which results in status and material constraints.

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# Students' Evaluations about Prosocial and Violent Behaviour and Attitudes

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**Abstract**: This cross-sectional study addressed to measure two aspects of students' evaluations across three school contexts: (1) frequency of prosocial and violent behaviour in peer and student-teacher relationships, and (2) attitudes toward prosocial and violent behaviour in peer and student-teacher relationships. Questionnaire data were drawn from study involving overall 514 students from Estonia: Students in juvenile correctional educational institutions (N=82), students with special needs in special schools (N=151), and students in mainstream schools (N=281), whereby the age of all subjects was 14-17 year. Results of the study indicated that: (1) Prosocial attitude-behaviour consistency tended to exists among students in mainstream school and in special schools, but among juvenile delinquents inconsistency between prosocial attitudes and actions at relationships level was revealed – positive attitude with lowest frequency of action in student-teacher relations compared with student-student relations; and (2) violence attitude-behaviour consistency tended to exists in mainstream school and in special schools, whereby among juvenile delinquents inconsistency between violence attitudes and behaviour exists in relationship level – most negative attitudes with highest frequency of behaviour in student-teacher relations compared with student-student relations. Prosocial/violence attitude-behaviour relations may vary from school setting to school setting and from relationships levels – student-teacher, student-student, giving directions for prevention of and intervention in school violence.

**Keywords**: prosocial behaviour, violent behaviour, attitudes, adolescents, different school settings, psychology.

## Introduction

Based on empirical evidence R. Veenstra (2006) concluded that research on the development of prosocial and antisocial (included violence) behaviour in childhood and adolescence has been rather independent branches of each other reflecting the advances of studies in which prosocial and antisocial behaviour examined concurrently, whereby existing studies (Krueger, Hicks, McGue, 2001) mix measures of behaviour with measures of attitudes in this area.

Prosocial behaviour is usually defined as behaviour intended to help others (Eisenberg, 1996) and involves sharing, cooperating, helping, feeling empathy, and caring for others (Radke-Yarrow, Zahn-Waxler, Chapman, 1983). Violent behaviour can be defined as physical force exerted to cause damage, abuse, or injury reflecting subtype of broad category of behaviour – antisocial behaviour, which is act that violates the rules and laws of society (Connor, 2002).

Violence in school is a serious problem in contemporary schools and has documented in the literature internationally (Smith, 2003). Strong correlations between positive attitudes towards violence and aggressive (verbal, physical and relational) behaviour exist among boys and girls in adolescence (Vernberg, Jacops, Hershberger, 1999). Research (Gellman, Delucia-Waack, 2006) among perpetrators of school violence and nonviolent control participants have demonstrated a positive relationship between adolescents' attitudes toward violence and the use of violence, whereby it was found that attitudes towards violence had partial mediator role in the relationship between media-peer effects and physical violence among adolescents (Avci, Gucray, 2013). At the other side, prosocial adolescents were more prone to endorse prosocial values and mores (Carlo et al., 2003; 2011; Johnston, Krettenauer, 2011; Padilla-Walker, Carlo, 2007); and more sophisticated levels of prosocial moral reasoning have been shown to predict higher levels of prosocial and lower levels of aggressive behaviour among adolescents (Carlo et al., 1996; Eisenberg et al., 1995; Wyatt, Carlo, 2002), whereby this is consistent with results among delinquents showing lower scores on moral reasoning than non-delinquents (Stams et al., 2006). Also, P. Boxer, M.S. Tisak and S.E. Goldstein revealed that normative beliefs about aggression were positively associated with aggressive behaviour in early and middle adolescents, whereby these beliefs were negatively associated with one specific type of prosocial behaviour – proactive prosocial (manipulative, self-interested, goal-directed) behaviour (Boxer, Tisak, Goldstein, 2004).

Although prosocial and antisocial (included delinquent) behaviours are independent behavioural tendencies stemming from different dispositions among adults (Krueger, Hicks, McGue, 2001), findings suggested that they were related to each other, especially in early adolescence (Veenstra et al., 2008) when antisocial behaviour is at its peak. High levels of prosocial behaviour were accompanied by low levels of antisocial behaviour, and vice versa. Moreover, prosocial preadolescents had the highest level of socioeconomic status, effortful control, intelligence, academic performance, and peer acceptance, and the lowest level of peer rejection, bullying, and victimization; and antisocial preadolescents had the reverse levels of these variables being seriously at risk of life-course persistent antisocial behaviour according to T.E. Moffitt's (Moffitt, 1993) categorization.

Longitudinal research suggests that (pre)adolescents who engage in high levels of prosocial behaviours were less likely to exhibit number of antisocial (Carlo et al., 2011; Kokko et al, 2006) and delinquent (Pulkkinen, Tremblay, 1992) behaviours. Correlative studies provide evidence that specific forms of prosocial behaviour were linked to aggressive behaviours in adolescence: Compliant (helping when requested) and altruistic (acting without expectation of self-reward) forms of prosocial behaviours showed the strongest negative links to early adolescents' delinquent and physical and verbal aggressive behaviours (Carlo et al., 2014); proactive prosocial (manipulative, self-interested, and goal-directed acting) behaviour correlated positively with aggression, and uncorrelated with other prosocial behaviour (i.e., reactive, altruistic) among early and middle adolescents (Boxer, Tisak, Goldstein, 2004); physical aggression correlated negatively with altruistic and compliant forms of prosocial behaviour among late adolescent college students, whereby sympathy fully mediated the relations between compliant prosocial behaviours and physical aggression, and partially mediated the relations between altruism and physical aggression (McGinley, Carlo, 2007). Also, correlative (Ma et al., 2000) studies have revealed that peer relationships among adolescents were associated negatively with their antisocial behaviours, and teacher-student relationship associated positively with prosocial behaviours.

Furthermore, there exist some cross-sectional studies provided evidence for a group of adolescents that combine and a group of adolescents that lack both prosocial and antisocial behaviour (Pakaslahti, Keltikangas-Jarvinen, 2001), whereby of adolescents who had used both prosocial and antisocial strategies were popular among peers (Hawley, 2003; Kornbluh, Neal, 2016). With regard to the classification of T.E. Moffitt (1993) these juveniles tend to be adolescence-limited antisocial and during their adolescence, they start to engage in antisocial acts but were able to refrain from such activities if the costs of such behaviour increase.

The adolescence-limited group of antisocial behaviour of juveniles was indistinguishable from the life-course persistent group (Nagin, Farrington, Moffitt, 1995; Moffitt et al., 2001) indicating that life-course persistent antisocial behaviour was characteristic for juvenile delinquents in educational correctional institutions and adolescence-limited antisocial behaviour emerge among mainstream and special schools' students (Koiv, 2006). Also, the social-organizational context in three types of schools was different – schools' climate across two dimensions (teacher support and school policies against violence) and schools' safety was most favourable in mainstream schools and last favourable in juvenile correctional institutions, whereby middle ratings reflected special school pupils' opinions in the area of school climate and safety (Koiv, 2014).

The aim of the present study was twofold: to compare (1) the variance of prosocial and violent behaviour in peer and student-teacher relationships, and (2) the variance of attitudes towards prosocial and violent behaviour in peer and student-teacher relationships in the three educational contexts/settings: mainstream schools, special schools and juvenile correctional institutions.

## Methodology

### *Research questions*

The current study aimed to address two research questions. Whether there is a variation in prosocial attitudes and prosocial behaviour across different school context (mainstream school, special school, correctional institution) and across different relationships levels (student-student, student-teacher)?

Whether there is a variation in violence attitudes and violent behaviour across different school context (mainstream school, special school, correctional institution) types and across different relationships levels (student-student, student-teacher)?

***Samples***

Data were drawn from study involving overall 514 14-17 years old (M = 15.22; SD = 0.88) middle school students from Estonia: students in two juvenile correctional institutions (N=82; boys: 65, girls: 27); students with special educational needs in three randomly selected special schools (N=151; boys: 82, girls: 69); and students in nine randomly selected mainstream schools (N=281, boys: 151, girls: 130).

***Instruments***

The first self-report instrument of the study was designed to measure the frequency of seven types of prosocial behaviour (cooperating, helping, inclusion, sharing, showing empathy, showing trustworthiness, supporting) and seven types of violent behaviour (insults, offensive remarks, physical attacks, ridiculing, shouting, threatening to hurt, and threatening with violence) in peer and student-teacher relations, viewing students as targets. Participants answered to each item describing prosocial behaviour using one of four Likert-type scale response ranging from 0 = never to 3 = very often. Average scores were calculated for the Frequency of Violent Behaviour scale and for the Frequency of Prosocial Behaviour scale, whereby higher scores indicated higher frequency of involvement. The Cronbach's alpha for the Frequency of Violent Behaviour scale was 0.90, and for the Frequency of Prosocial Behaviour scale was 0.89.

The second instrument of the study was a self-report measure for evaluation of attitudes towards seven types of prosocial behaviour (cooperating, helping, inclusion, sharing, showing empathy, showing trustworthiness, and supporting) and towards seven types of violence (insults, offensive remarks, physical attacks, ridiculing, shouting, threatening to hurt, and threatening with violence) in peer and student-teacher relations. Items were scored on a five-point Likert-type scale, ranging from 1 = strongly disagree to 5 = strongly agree, whereby a higher score indicates a more favourable attitude. The average scores for Attitudes about Violent Behaviour scale and for the Attitudes about Prosocial Behaviour were calculated. The mean responses of prosocial attitudes scores were 3.37 and for violent attitudes scores 2.63, which identified generally a neutral to a slightly above neutral attitude level. The Cronbach's alpha of the Attitudes about Violent Behaviour scale was 0.87 and 0.86 for the Attitudes about Prosocial Behaviour scale.

**Results and Discussion**

At first, the prevalence of violence and prosocial behaviour exhibited by the three groups of pupils in juvenile correctional educational institutions (training school), in special schools and in mainstream schools across two levels of relations in school setting – student-student and student-teacher, was calculated.

Using *t*-tests, differences between three study groups were significant comparing the frequency of violent behaviour in peer and student-teacher relations: The total scores of frequencies of violent behaviour were higher in juvenile correctional institutions compared with pupils' evaluations in special schools and mainstream schools. Research results indicated that the prevalence of prosocial behaviour was higher among mainstream and special school pupils compared with training school pupils' evaluations in peer relations and in student-teacher relations revealing statistically significant differences. Also, the results indicate that among juvenile delinquents the frequency of prosocial behaviour was lower (lowest in general) in student-teacher relations than in student-student relations; and the frequency of violent behaviour was higher (highest in general) in student-teacher relations than in student-student relations. Concerning with above mentioned results the opposite tendencies were revealed among other study-groups – relatively higher prevalence of violent behaviour in pupil-pupil relationships compared with in peer relationships. There were no other statistically significant differences between the groups (Table 1).

Secondly, there were clear tendencies in three groups of students concerning with the attitudes towards prosocial behaviour among student-student and student-teacher relationships - the higher ratings among mainstream and special school students compared with training school students (all statistically significant differences between comparison groups). Students' attitudes toward violent behaviour in student-student and student-teacher relationships were different in the three types of school - lower ratings of violence among training school students compared with special school and mainstream school students' evaluations in both types (student-student, student-teacher) relations.

Table 1

**Frequency of violent and prosocial behaviour among student-student and student-teacher relationships among pupils in three types of school (means, t-values)**

| Frequency of prosocial or violent behaviour | | Juvenile correctional institution (A) | Special schools (B) | Main-stream schools (C) | A vs. B *t*-value | A vs. C *t*-value | B vs. C *t*-value |
|---|---|---|---|---|---|---|---|
| Student-student relationships | Prosocial behaviour (D) | 1.16 | 1.55 | 1.59 | 4.01** | 4.04** | 0.04 |
| | Violent behaviour (E) | 1.62 | 1.32 | 1.21 | 2.99** | 2.78** | 0.12 |
| Student-teacher relationships | Prosocial behaviour (F) | 0.99 | 1.59 | 1.63 | 1.95* | 2.00* | 0.91 |
| | Violent behaviour (G) | 1.98 | 0.53 | 0.49 | 8.21** | 10.52** | 0.66 |
| | D vs. F *t*-value | 7.35** | 0.05 | 0.09 | | | |
| | E vs. G *t*-value | 2.13** | 5.67** | 4.09** | | | |

* - p<0.05; ** - p<0.01

Also, it was revealed that attitudes toward violence in two levels of relations among juvenile delinquents were different – lower (lowest in general) in student-teacher relationships compared with peer relationships, whereby polar tendencies emerge concerning with attitudes toward prosocial behaviour – higher (highest in general) in student-teacher relationships compared with student-student relationships. No other statistically significant differences between the samples were revealed (Table 2).

Table 2

**Students' attitudes toward violent and prosocial behaviour among student-student and teacher-student relationships in three types of school (means, t-values)**

| Attitudes toward prosocial or violent behaviour | | Juvenile correctional institution (A) | Special schools (B) | Main-stream schools (C) | A vs. B *t*-value | A vs. C *t*-value | B vs. C *t*-value |
|---|---|---|---|---|---|---|---|
| Student-student relationships | Prosocial behaviour (D) | 2.62 | 3.56 | 3.66 | 7.35** | 8.14** | 0.93 |
| | Violent behaviour (E) | 2.13 | 2.90 | 2.97 | 4.12** | 4.08** | 0.08 |
| Student-teacher relationships | Prosocial behaviour (F) | 3.01 | 3.62 | 3.75 | 6.49** | 6.52** | 0.79 |
| | Violent behaviour (G) | 1.71 | 3.02 | 3.05 | 4.91** | 4.35** | 0.07 |
| | D vs. F *t*-value | 3.55** | 0.12 | 0.08 | | | |
| | E vs. G *t*-value | 3.98 ** | 0.11 | 0.13 | | | |

** - p<0.01

Consequently, in peer and student-teacher relations in both school settings – mainstream and special schools, the frequency of prosocial behaviour was generally high and attitudes toward prosocial behaviour were positive, but in juvenile correctional institutions the frequency of prosocial behaviour in student-teacher relations was lower than in peer relations and attitudes toward prosocial behaviour were more positive in student-teacher relations than in peer relations. These first findings are generally parallel with previous studies among adolescents (Carlo et al., 2003; 2011; Johnston, Krettenauer, 2011; Padilla-Walker, Carlo, 2007) showing prosocial attitude-behaviour consistency, with specifying the school context – in mainstream and in special schools.

The overall prevalence of prosocial behaviour among juvenile delinquents was lower than among adolescents in other two educational settings, with lowest ratings revealed among student-teacher relationships compared with peer relations. The result is parallel with previous studies among public school non-delinquent adolescents showing that good relationships with peers were negatively associated with students antisocial (included violent) behaviours and their good relationships with teachers were positively associated with their prosocial behaviours (Ma et al., 2000). Among juvenile delinquents, the prosocial attitude-behaviour relations tended to be controversial in relationship level, reflecting less frequent behaviour with more positive attitudes in student-teacher relations compared with peer relations. The present findings have important implications for the development of interventions designed to reduce antisocial behaviours and simultaneously promote more constructive prosocial behaviours in juvenile correctional institutions to teach youth the benefits of engaging in prosocial behaviours in teacher-student relations with promoting prosocial attitudes.

Present research supported previous studies (Vernberg Jacops, Hershberger, 1999; Gellman, Delucia-Waack, 2006) among public school adolescent-age students that attitudes toward violence unacceptance follow with low levels of violence (especially in student-teacher relations) among students in two types of schools – in mainstream schools and in special schools. Opposite tendencies revealed among training school students in relations levels – juvenile delinquents' attitudes toward violence in student-teacher relations were most negative and their violent behaviour in student-teacher relations was most frequent. Previous studies (Simane-Vigante, Plotka, Blumenau, 2016) have revealed also some contradictions of criminal offenders' attitudes showing that convicted adults had higher preference towards violence than adults on probation. The present result about violent attitude-behaviour inconsistency among juvenile delinquents in student-teacher relation may evoke a speculation that unfavourable attitudes among juvenile delinquents toward the use of violence may be one factor that reflects the anti-violent psychological climate in the educational correctional institution. It can be assumed that when juvenile delinquents-maintained behaviours and attitudes those were inconsistent, they would be more prone to behaviour change. Previous studies (Schumacher, Slep, 2004) around dating aggression showed that a mismatch between attitudes and behaviour may be an important catalyst for behaviour change.

It is important to note that there will be different violence preventive and intervention strategies based on the group membership in different educational settings: Violence attitude-behaviour consistency in the mainstream school and special school gives a review for attitude change with concurrent behaviour change; and in juvenile correctional institutions attitudes may facilitate behaviour that is consistent with these attitudes.

There are some limitations to the present findings. First, the cross-sectional study design limits the ability to infer causal relations and more rigorous research is needed to better infer causal directions. Second, the constructs in the present study were assessed using self-report measures and future research using multiple methods is desirable to replicate the findings. Third, although the relatively large samples were recruited across three different school settings, the findings may not be generalizable to the broader samples of adolescents in other countries.

## Conclusions

The focus of the study was to provide support for the prosocial/violence attitude-behaviour consistency or inconsistency across three different school settings in two levels of relations. Key results of the study: (1) Prosocial attitude-behaviour consistency (positive attitude with high frequency of action) and violent attitude consistency (negative attitude with low frequency of action) in mainstream and special school settings; and (2) prosocial attitude-behaviour inconsistency (positive attitude with low frequency of action) and violent attitude-behaviour inconsistency (negative attitude with high frequency of action) in student-teacher relations among juvenile delinquents in correctional institutions, are giving new directions for prevention and intervention of school violence in different school settings.

The present findings may suggest that the development and support of prosocial education programs as possibilities of preventing violence may be especially helpful for juvenile delinquents in correctional institution. Specifically, when working with juvenile delinquents, the interventions may focus on more preventive measures of students' future violent behaviour with engaging in prosocial behaviours in teacher-student relations through the evoking discrepancy between adolescents' violent behaviour and attitudes as a predictor of behaviour change in area of prosocial behaviour. In contrast, interventions and prosocial education for adolescents in mainstream and special schools may focus mainly on changing youth' attitudes (towards more unaccepting) both in peer and teacher-pupils' relationships and through this promote prosocial competencies of pupils.

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# Pedagogical Training in the Preparation of Prospective Teachers of Professional Economic Subjects

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**Abstract**: The paper deals with the pedagogical training the researchers consider to be necessary in the undergraduate preparation of prospective teachers. It has its irreplaceable place in the curriculum of universities which have been preparing prospective teachers of vocational subjects. The undergraduate teachers' education consists of four components: general background, pedagogical-psychological component, subject-matter and pedagogical training. There is a trend in all faculties educating prospective teachers that the subject-matter is far more important than the other three components. The researchers present the concept of qualitative and quantitative research. The aim of the qualitative research was to identify the weaknesses of the prospective teachers' performance. The research method of moderated discussion was used and 32 prospective teachers from the faculty schools were the respondents. The researchers found that the most common problems for the prospective teachers when teaching were to manage class discipline, to have the ability to motivate students, and the lack of adequacy of the topic when lecturing. The aim of quantitative research was to determine the quality of the pedagogical training at the faculty training schools. To meet the research aim three research hypotheses were set. Forty – seven students of the master's study programme Teaching of Economic Subjects at the University of Economics in Prague took part in the research. Through the form of the questionnaire survey, students' attitudes were assessed on various evaluated aspects of pedagogical training. The course of pedagogical training was evaluated by students positively (1.80); the material equipment of training schools (2.51) and the time range of pedagogical training (2.06) were assessed as a weaker side. The research hypotheses were confirmed. On the basis of the results of the research, the researchers propose possible measures to improve pedagogical training. The researchers are of the opinion that it is appropriate to include various forms of training in the preparation of prospective teachers to bring theory into line with training, but it is important to remember that no simulations will replace the direct experience in real situations, in training schools.

**Keywords**: university education, pedagogical training, prospective teacher, pedagogical competencies, self-reflection.

## Introduction

The pedagogical training participates in the quality of performing the teaching profession. Pedagogical training during tertiary education cannot be understood only as a training itself, its content, organization, methods and management, but also as a relationship between theory and training in prospective teachers' education. Such an approach is important not only for the design of training in the system of working with prospective teachers, but also for the whole concept of working with prospective teachers. Therefore, students are required to master not only the basic principles of the chosen field of study but also the pedagogical-psychological ones to build the system of activities in relation to the content of the studied fields and to be able to theoretically synthesize theories, which have already proved to be efficient, and experience in real teaching situations (Kozina, Erjavsek, Kostanjevec, 2015). Applying academic knowledge, competencies, skills must be realized in a specific environment that is according to the researchers the real environment of a secondary school. J.A. Whitcomb (2004) and J.J. Loughran (2006) consider the real environment to be extremely important and irreplaceable by any other form of preparation. The competence model also includes competencies that cannot be acquired and developed in a different way than in a real authentic environment. For example, application of didactic method, communication skills, creation of own professional image, management of teaching activities, self-regulation, etc.

Training as a creative activity determines the character of the students' preparation, allows them to clarify the main approaches to teaching, to gain experience of personal relation to the profession. The role of a teacher training is part of preparing prospective teachers for a future profession. From this point of view, its position in the study programmes as well as its position from the social aspect should be appropriate and should create a substantial part of the study programme. The situation about pedagogical training, which professionally prepares the prospective teacher to solve everyday situations in school practice, is different, worse. The situation differs from faculty to faculty, although in many faculties there is an attempt to make organizing pedagogical training professional. The fact that there is no minimum number of hours, terms, i.e. the length of training is determined by the criteria for each study period, causes the differences in preparing prospective teachers. It is important to admit that it is questionable worldwide what form, content, types of pedagogical training should be implemented as so-called "optimal". The researchers cannot say with a certainty what organizational, content, methodological and other qualities the training of students should have to fulfil all profile goals in the preparation of prospective teachers, i.e. there are no standards whereby passing of pedagogical training would be considered.

At present, universities that provide teacher training programmes determine the conditions of pedagogical training themselves. This has a relatively negative impact on teachers who are not, as some surveys show, sufficiently prepared to deal with difficult situations and pedagogical problems that teachers have to deal with at school (Kriz, 2014).

The researchers agree with the opinion (Gadusova, 2007) that the key factors influencing the success of the practical training of the students is the balance of the partner's understanding of four actors: general methodologist, field methodologist, prospective teachers' trainer and prospective teacher; the quality of communication between the participants in the process of professional teaching training and consistent leadership of students in the process of developing teaching competencies. It comes out that the practical training of students in the process of professional teachers' training requires a close connection at several levels:

- at the level of didactic method of teaching and field didactic method - cooperation of teachers of both disciplines at a specific faculty (especially the content and methodological connection of these disciplines),
- at the level of training methodologists of subjects and teacher trainers - coordinated leadership of the prospective teachers during their pedagogical training,
- at the level of the prospective teacher - teacher trainer, student - field methodologist - interconnection of the theoretical and practical preparation of the student (prospective teacher) in the process of professional pedagogical training.

The meaning of pedagogical training according to B. Kosova (2002) is fulfilled when the methodologists of the faculty as well as the teacher trainers lead the student (prospective teacher) to develop:

- communicating with all participants in the pedagogical process in gaining experience in clear, understandable way of communication with the individual and the group, making positive interpersonal relationships,
- diagnostic capabilities to recognize the individual peculiarities of their students and their specific educational needs, the students' social relationships in the classroom, to feel the problems of the students and to understand them,
- psychodidactic competences based on the didactic transformation of the subject in the view of the peculiarities of students, the ability to effectively help children in learning, the ability to use appropriate strategies and methods for their meaningful learning,
- managerial competencies consisting of quality planning of students' learning process and the creation of learning programmes and tasks, good organizing of independent and cooperative learning of students,
- the ability to self-reflect their professional skills and personal qualities, etc.

In case of model prospective teachers' performances, both the prospective teacher and the teacher from the school evaluate the performance, i.e., whether it was good or not. It should be noted that when doing the evaluation of the performance it is often not about the analysis of the performance and experience of the teacher, but that the analysis is based only on a descriptive assessment of their work, which can hardly help improve the work of other teachers. Therefore, in order to analyse the performance well, it is necessary for the prospective teachers to identify in particular what didactic principle they want to demonstrate in their performance why there is a causal link between the methods and the results of their work, what mode of realization is the best based on the experience in their working conditions, and what they see is the contribution of the effort to the educational role. In this case, the teacher from the school does not deal with unnecessary details of the lesson, but evaluates the basic methodological idea of the lesson and the essence of the experience used. This is more important for improving than evaluating the training itself without mentioning a theoretical background, as prospective teachers can critically evaluate whether and how the experience gained could be used in working conditions.

**Pedagogical Training of Prospective Teachers at the University of Economics in Prague**

As mentioned above, the practical part of the academic preparation for the teaching profession is the practical training that is determined by the level of pedagogical training. Its importance in the preparation of prospective teachers cannot be questioned.

In the master's degree programme Teaching of Economic Subjects pedagogical training is implemented in two separate subjects: Didactics of Economics with pedagogical training and Didactics of Accounting with pedagogical training. The subjects are included in the study plan in the 2nd year in the summer term. Their time allocation is 2/2. Lectures and part of the seminars take place at the faculty, part of the seminars is implemented in the form of pedagogical training at faculty schools. The Department of Economic Teaching Methodology has a total of 9 faculty training schools. Students (prospective teachers) have a total of 10 performances during the pedagogical training, 5 in the subject Economics and 5 in the subject Accounting. Preparations for the lesson and the performances themselves are evaluated by the assigned teacher trainers. At least one performance (from each subject) is attended by the methodologist or a teacher from the Department of Economic Teaching Methodology. The assessment of the teacher trainer consists of a maximum of 6 points for the performance. Assessment and comments on the performance are recorded by the teacher trainers in the evaluation sheets that are available before the pedagogical training begins. The final assessment is done by the methodologist/ a teacher from the Department of Economic Teaching Methodology and the assessment is passed on the teacher of subject of didactics of economics with pedagogical training and the methodologist of accounting with pedagogical training. The assessment of the pedagogical training is included in the overall assessment of the subject. As an important part of pedagogical training considered by the researchers is self-evaluation of the student. In terms of improving the student's work, self-reflection is very important. If the researchers are to prepare a reflexive professional, it is important to develop a reflexive competence during the training.

**Methodology**

In this area quantitative and qualitative research was carried out. Respondents from the research were teacher trainers from faculty training schools and students of master's degree of Teaching of Economic Subjects at the University of Economics in Prague.

**A) Qualitative research**

**Aim:** Identify the weaknesses of performances attended by prospective teachers.

**Respondents of research:** 32 teachers of economic subjects who provide pedagogical training at faculty training schools.

**Research method:** interview (guided discussion).

**The main results of interview:**
Teacher trainers agree that the most problematic areas for prospective teachers are the following ones:

- managing the discipline in the classroom,
- the ability to motivate - to excite the students about the curriculum,
- inadequate estimation of the adequacy of lecturing,
- the first performances are similar to seminars at universities,
- speed of lecturing,
- an effort to say as much as possible (breaking of the "less is more" principle),
- problems with classroom management (style of leadership and organization of students' activities),
- problems with the writing structure on the board,

- not keeping the required performance structure (absence of the final phase in the form of a summary and verification of the understanding of new curricula), and so on.

These findings correspond to the analysis of international pedagogical research databases by S. Veenman (Veenman, 1984; Prucha, 2013), with the most frequent problems of professional start-up of prospective teachers. The results of the analysis are shown in Table 1.

Table 1

**Problems of the professional start-up of teachers**

| Order | Problem | Frequency of occurrence |
|---|---|---|
| 1. | Manage the discipline in the classroom | 85 |
| 2. | Motivate students | 50 |
| 3. | Adapt to the individual peculiarities of the students | 46 |
| 4. | Evaluate students' results | 38 |
| 5. | Develop relations with parents | 36 |
| 6. | Inappropriate tools and materials | 32 |
| 7. | Organize the student's work in the classroom | 30 |
| 8. | Solving the problem of individual students | 30 |
| 9. | The burden of teaching is too heavy | 29 |
| 10. | Relations with colleagues | 27 |
| **The least frequent problems of the professional start of teachers** | | |
| 22. | Lack of free time | 11 |
| 23. | Insufficient help when starting teaching career | 10 |
| 24. | Too many students in classes | 9 |

Source: Problems of the professional start-up of teachers (Veenman, 1984; Prucha, 2013)

F is the frequency of occurrence of the "problem" in the total number of research analyses (N = 100, so F indicates the occurrence in percent of N).

It is clear from the above analysis that it is advisable to continuously analyse the course of pedagogical training, to focus on assessment of pedagogical training by trainees and subsequently to try to eliminate the most frequent pedagogical problems of trainees through complex preparation within the subject which is a seminar on pedagogical training that precedes the pedagogical training itself. In the seminar, the methodologists should focus primarily on solving case studies focused on possible pedagogical, psychological and didactic problems that trainees can encounter during the pedagogical training itself.

## Recommendations

The results of the discussion were taken as a consensus of the views and educational needs of all the parts involved, and were projected together with further experience from the whole course of the research into the following **main conclusions and recommendations:**

- obligatory students' observations - to use them as obligatory before starting their own pedagogical performances; previously the observations were only recommended to students, some students used that option, some not, which had a subsequent negative reflection on the level of their performances in the classroom at the faculty training schools,
- in the field of preparation of prospective teachers to strengthen the teaching of school legislation and management of education; there appeared opinions on the existence of separate subjects in which the subject matter would be taught or strengthened the relevant thematic units within the subject Pedagogy,
- to consider the creation of a separate subject Controlled Pedagogical Training (continuous for 2 weeks),
- to implement periodic seminars for teacher trainers and headmasters of faculty training schools so that mutual awareness, a proven exchange platform and sharing of opinions and experience are sustainable,

- to require conducing of a pedagogical diary from the prospective teachers and documenting their systematic preparation during the whole time of pedagogical training,
- within seminars on the subjects of Didactics of Economics with pedagogical training and Didactics of Accounting with pedagogical training to include examples of good practice, e.g. videos of the performances of experienced teachers and prospective teachers of previous years and their comprehensive analysis.

**B) Quantitative research**

**Aim:** Identify the quality of pedagogical training.

**Research Hypotheses:**

**H1:** The researchers assume that students will evaluate the quality of organizing the pedagogical training positively.

**H2:** The researchers assume that students will positively evaluate the quality of methodical materials prepared by the methodologists of the Department of Economic Teaching Methodology (DETM).

**H3:** The researchers assume that the overall assessment of the quality of pedagogical training will be assessed by students on the scale 1 to 5 at least at level 3.

**Research Respondents:** 47 students of the master' study programme Teaching of Economic Subjects at the University of Economics in Prague.

**Research Method:** questionnaire survey.

**The main results of questionnaire survey:**

The students had a scale of 1 - excellent, very good, very satisfied; 2 - very good, I like it, I'm happy; 3 - good, sometimes I like it, sometimes I do not like it; 4 - weak, I do not like it, I'm dissatisfied; 5 - insufficient, I do not like it at all, I am very dissatisfied; 0 - I do not know how to express, I do not know how to judge; *to evaluate the quality of selected areas of pedagogical training.* The results are presented in Table 2.

Table 2

**Assessment of Pedagogical Training**

| Area of evaluation of pedagogical training | Average value |
|---|---|
| Organization of pedagogical training | 1.68 |
| Level of methodical materials | 1.95 |
| Cooperation with a teacher trainer | 1.40 |
| Cooperation with the methodologist from DETM | 1.33 |
| Social climate at the training school | 1.74 |
| Material equipment at a training school | 2.51 |
| Time range of pedagogical training | 2.06 |
| Assessment of students in pedagogical training | 1.76 |
| **Overall evaluation of pedagogical training** | **1.80** |

Source: Own research

**Discussion**

From the results presented in Table 1, Figure 1 and Figure 2 it is clear that students of the master's study programme Teaching of Economic Subjects evaluated the course of pedagogical training positively (1.80), the material equipment of training schools was considered as a weakness (2.51) - specifically equipment with projection technology, interactive whiteboards, multimedia learning aids, and so on. Another weak aspect is the time range of the pedagogical training (2.06) - students are forced to harmonize the performances at a training school with their study schedule at the university, which can cause problems. Students recommended existing training schools and teacher trainers for the pedagogical training. Based on the results obtained, the researchers can state that the hypotheses of H1, H2 and H3 have been confirmed.

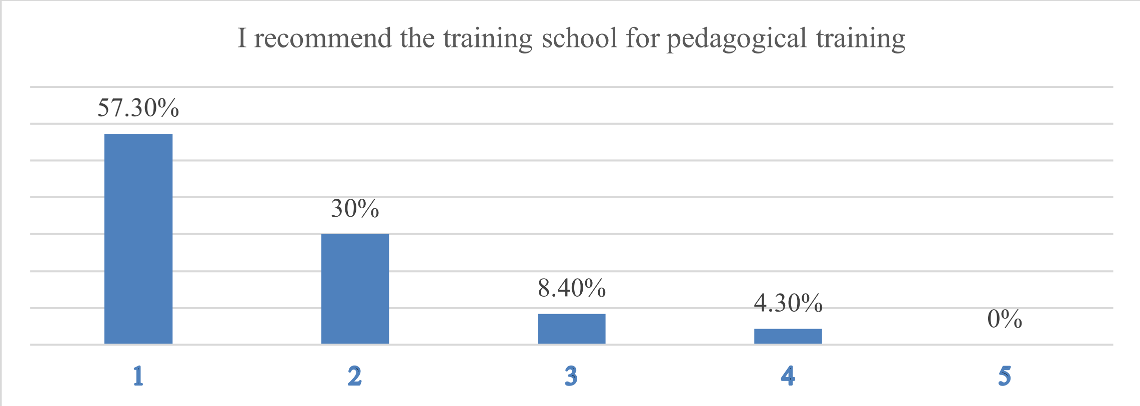


Figure 1. Students' Opinion on the Training School

There are opinions that students/prospective teachers at universities and colleges should acquire theoretical knowledge from the profile and related fields as part of their study, and practical experience should be acquired only in real life after leaving the school (Sykes, Bird, Kennedy, 2010).

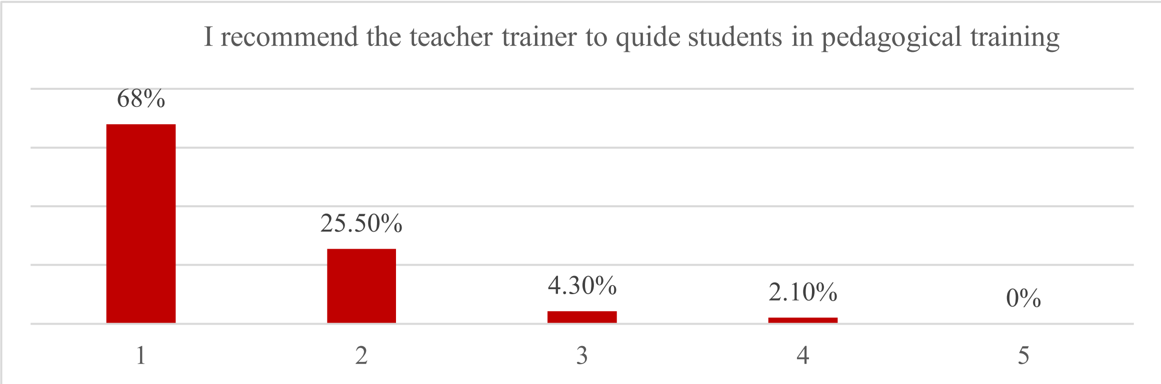


Figure 2. Students' Opinion on the Teacher Trainer

**Likert scale:** 1 - definitely yes; 2 - rather yes; 3 - I cannot judge; 4 - rather not; 5 – definitely not

Many American schools focusing on the training of prospective teachers underwent a successful transformation that had focused on standards, curriculum innovation and creating of stronger training. The greatest progress was recorded in the field of training, i. e. linking of theory and practice. The teacher certification system focused on verbal skills, knowledge content and lowered emphasis on teaching skills, with considering the weak contact with schools where teachers would work in the future as a weakness. Teachers require training in teaching and professional skills to be professionally prepared for their work. L. Darling-Hammond (2010) emphasizes that linking theory and practice is not possible without the active participation and collaboration of the university and the type of school which prospective teachers are prepared for. During their studies or pedagogical training, they can solve different educational problems, communicate with parents, school partners, come into contact with various student stereotypes, etc. The Scandinavian countries (Finland, Sweden, Norway and the Netherlands) have 1 year of pedagogical training in partner schools as part of their pedagogical training. On the other hand, the author points to the advanced Singapore system, where teacher education is provided by The National Institute of Education. Studies focus primarily on the development of key competencies for the 21st century i.e. they develop critical thinking, skills in curriculum, technology and economics. The government supports and puts great emphasis on the professional help of the teaching staff. G. Sykes, T. Bird and M. Kennedy (2010) see the disparity between general university education and practice. This phenomenon causes insufficient preparation of "novices", i.e., starting teachers. According to them, novice teachers should have the knowledge of the field, they should be competent and want to be constantly educated and the initial training should be acquired at the appropriate school. The authors highlight the possibilities of cooperation between universities and schools in the field of early-stage teachers.

Ball D.L. and Forzani F.M. (2009) admit the difficulty of including real pedagogical training in the US prospective teachers study programmes, but they see the possibility of creating a practice-focused curriculum.

## Conclusions

Under the influence of constantly changing pedagogical training, the variety of pedagogical situations that may arise during the course of teaching and innovation in economic fields, the process of increasing teachers' pedagogical competencies is being permanent. Pedagogical training is an inseparable part of the comprehensive preparation of students in the teaching profession. The content of pedagogical training integrates all the components of university education of the prospective teachers - engineers. It provides students with the opportunity to verify the acquired theoretical pedagogical-psychological as well as professional subject knowledge in practice and to acquire the basic practical skills necessary for the performance of the teaching profession. The results of qualitative research have shown that the most common problems for the prospective teachers when teaching were to manage class discipline, to have the ability to motivate students, and the lack of adequacy of the topic when lecturing. The results of quantitative research have shown that the course of pedagogical training was evaluated by students positively but the material equipment of training schools and the time range of pedagogical training were assessed as a weaker side. The researchers are inclined to believe that it is appropriate to include different forms of training in the preparation of prospective teachers, bringing together theory and practice, but it is important to remember that no simulations will replace the direct experience in real practice, i.e. in training schools. This view is supported by long-term experience not only in their country but also abroad.

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# The Improvement of Eco-school Students' Environmental Awareness in the Context of Education for Sustainable Development

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**Abstract**: Nowadays the humankind strives to reach higher and higher standards of living, disregarding the consumption of natural resources in their comfort and failing to think about what they will leave behind for the future generations. As the person's quality of life depends on the environment in which he lives, it is important to change his environmental awareness in the context of sustainable development. The younger is the person, the easier it is to develop environment-friendly behaviour in him. Eco-school is one of the ways of "greening" students' thinking. The aim of the study has been to find out how students' environmental awareness is developed in Biology lessons in Grade 7, basing on education for sustainability goals, objectives and cross-cutting sustainable development key competencies. A study has been performed in eco-school A in 2018 involving 38 students in it. During the study the year topic of the eco-school "Waste" was integrated in 11 Biology lessons using diverse teaching/learning methods; students were surveyed and they also did a test. The obtained data were processed using SPSS programme. The results showed that students' environmental awareness had improved: the level of knowledge and skills had increased; the choice of an environment-friendly behaviour had changed a little. However, the acquisition of one topic in one school subject is not sufficient to make students' environmental awareness change considerably in all cognitive, socio-emotional and behavioural domains.

**Keywords**: eco-school education, environmental awareness, education for sustainable development, Waste, biology.

## Introduction

Nowadays the greatest part of the society is informed about different problems of the global environment – melting of glaciers, global warming, diminution of different habitats and extinction of species, rapid increase of human population, waste accumulation, shortage of food and fresh water and other environmental problems. The mankind in general strives for reaching higher living standards consuming more and more the natural resources and this has resulted in serious environmental problems that lead to a global catastrophe. Thus, it is necessary "to preserve the environment and improve it qualitatively not only for the present but also for the future generations" (Nagra, 2010, 153). This means that the life quality of any man depends upon the quality of the environment, therefore it is important for everyone to participate in activities in order to decrease the people's harmful impact on the nature. However, not always human actions are able to counterbalance people's negative impact on the nature because people do not fully comprehend the consequences of their action. As M. Barth and M. Rieckman point out "the fundamental reorientations and transformations in terms of sustainable development require a far-reaching change of thinking and acting in individuals and society as a whole" (Barth, Rieckman, 2016, 100). During the last two decades the improvement of environmental awareness on all levels of the society has become one of the key social aims. Young people more frequently face the principal problem of the society's development – to balance the economic growth and the environmental sustainability (Rychen, Salganik, 2003).

The school system provides the largest organized base for environmental education and action. With children in "the plastic age, school offers an effective instrument for imbedding in them the desirable environmental ethics" (Nagra, 2010, 154). It is the most effective to form students' environmental awareness in early years and it is important to direct their thinking and habits to the environment-friendly thinking. One of the ways, how the world handles the problems of sustainable development (SD) is the formation of eco-schools on the initiative of schools themselves. Eco-school can be considered a model which ensures schools to develop a whole-school approach to environmental education. The philosophy of an eco-school is to provide schools with tools and infrastructure to foster sustainability in their own environment and their own community, including students, teachers, parents (Eames, Cowie, Bolstad, 2008). It is important to pay attention to the relationship between pedagogical and environmentally correct architectonic projects of eco-schools. Thus, it is possible to use in practice different learning strategies in the environment that is adequate and appropriate for the students' age. Regarding the primary school level, children should acquire the experience "to know plants' and animals' needs, their habitats, how to reduce, reuse and recycle materials, how to keep ecosystems linked to forests and water" (Gadotti, 2010, 207).

Eco-schools in Latvia engage in gathering information about the problems in nature and educating children about them choosing the theme of the year annually in order to explore topical problems in the surrounding locality. The depth and diversity of integrating the eco-school's topic of the year depends on each teacher's willingness to participate and change the students' opinion and habits.

## The nature of an eco-school

The International environmental education foundation or *Foundation for environmental education* in 1992 responding to solutions for sustainable development of education expressed in the United Nations (UN) conference that took place in Rio de Janeiro, developed the concept of Eco-schools (United Nations Conference, 1992). In 1994, Eco-schools started functioning in four European countries – United Kingdom, Greece, Germany and Denmark. In 2018, the movement of Eco-schools involved 51 000 schools from 67 countries (Eco-school, 2014). The Environmental education foundation of Latvia has been managing the programme of Eco-schools in Latvia starting from 1998. At present 200 educational institutions from preschools to higher education institutions participate in the programme of Eco-schools in Latvia (Eko-skolu programma, 2012).

In order to organize successfully their work, schools' function according to the Seven Steps Framework: Form an Eco Committee; Carry out an Environmental Review; Action Plan; Monitor and Evaluate; Curriculum Work; Inform and Involve; Produce an Eco Code (Eco-school, 2014). Every year the Eco-school works around a particular topic thoroughly focusing on it all through the year and trying to improve the results of the environment assessment and include this topic in the teaching/learning content. All in all, ten topics are implemented in Latvia – Energy, Waste, Food, Climate changes, School environment and vicinity, Water, Forest, Transport, Biological diversity and healthy lifestyle (Eko-skolu programma, 2012).

The Eco-school movement is very popular not only in Latvia but also in other countries. For instance, in Great Britain approximately 70 % of schools have joined this programme (Tidy, 2013). The work of Eco-schools is being explored and the majority of studies has shown that Eco-schools are successfully functioning schools that improve both students' knowledge and attitude to the environment (Cincera, Krajhanzl, 2013; Eames, Cowie, Bolstad, 2008; Gadotti, 2010; Tidy, 2013; Taurina, 2015, 70; Spinola, 2015).

It is defined that in Latvia, when developing the teaching/learning content of the school, it should include topical environmental themes. One of such topics is waste. The content analysis of the standard of Biology as a school subject (Regulations Regarding…, 2014) shows that the topic of waste has been superficially included in the content, and little corresponds to the aim~~s~~ to change the students' thinking and also do not corresponds to competencies specified by Education for Sustainable Development 2030. The standard identifies five topics that are related to pollution and its impact on living organisms. The topic "Waste" included in the Eco-school programme envisaged four aims:

- to popularize such a choice of consumption and lifestyle that diminishes the production of waste to minimum;
- to reduce, reuse and recycle the waste produced by school as much as possible;
- to strengthen children and students' understanding about harmful consequences caused by leaving waste in nature;
- to implement activities to prevent littering in the vicinity of the Eco-school and other territories.

Only two aims correspond partly to the requirements set in the standard of biology as the school subject: diminishing of waste and reusing them, forming students' understanding about the harmful consequences caused by leaving waste in nature. This means that Eco-schools have to re-plan their teaching/learning content to include the topic of the year in their annual teaching plans to reach all four aims.

## Environmental awareness in the context of sustainable development

General comprehensive schools of Latvia have been implementing the normative environmental education and partly also education for sustainable development since 1996 (Kakse, 2009). The aim of environmental education is the formation of environmental awareness and environmentally friendly and active behaviour. Environmental awareness helps to form positive attitudes about environmental issues, to be well aware of the environment and its related issues (Nagra, 2010) as well as to understand the negative role of human actions on the environment and promotes environmentally responsible behaviors (Karahan, Roehrig, 2015).

The concept of "sustainable development" was introduced in 1987 in the report Our Common Future by the World Commission on Environment and Development (Brundtland, 1987), defining sustainable development as the "meeting the needs of society without compromising the ability of future generations to meet their own needs". Education for sustainable development (ESD) is the 'older brother' of environmental education (Barth, Rieckman, 2016), and its aim is both to make people more responsible for future developments and to raise their awareness of problems related to sustainable development in all economic, social, environmental and cultural issues of future lives (Hoffmann, 2014; Sterling et al., 2017). Sustainability is understood as "a responsible action of individuals and societies towards a better future for all, locally and globally" (Bokova, 2015, 20) and education is "the key to the global integrated framework of sustainable development goals" (ibid, 5). The concept of sustainability has "an excellent educational component because the preservation of the environment depends on ecological awareness, which, in its turn, depends on education" (Gadotti, 2010, 205).

Problems of sustainable development should already be included in the teaching/learning process of the school (UNESCO, 2017a). The UN decade "Education for sustainable development" the aim of which was to integrate the principles, values and practical actions of sustainable development in education in all its aspects was implemented during the time period from 2002 till 2014 (Michelsen, Wells, 2017). The implementation of education for sustainable development is based on the approach of the constructivism theory – students themselves construct their knowledge and skills. The teacher is a guide in this process; the teacher helps, supports and shows the way how the student him/herself can acquire knowledge. The process, which has a clear attainable outcome, is important. Students in such constructively designed lessons develop their sustainable development skills as well as gain higher motivation to learn. It is advisable to make lessons differentiated and suitable for different students, offering equal education possibilities for all, which is one of the UN aims.

UNESCO (2017b) advises to include such critical issues in the curricula as climate changes, biological diversity, diminishing the threats of catastrophes, sustainable consumption and production. The teaching/learning environment should be interactive, the process - student centred. There is a well-considered learning environment both physical and virtual that encourages students to act for ensuring sustainability. It is envisaged to teach students the skills of "green workplaces" that will motivate them to take on a sustainable lifestyle. Besides the teaching/learning process should foresee a possibility for students to be – "global citizens" who can participate and take an active role solving locally and globally the problems of the world. As mentioned by T. Ichinose, this ensures "the fulfilment of ESD three essential aspects of holism: connecting the environmental, social, and economic dimensions of SD issues; integrating their past, present and future implications, and focusing on their local, regional, and global nature" (Ichinose, 2017, 37).

The intended learning outcome of such a teaching/learning process is the acquisition of learning and key competencies. UNESCO has defined 17 Sustainable Development Goals (SDG). For each SDG, learning objectives are described in the cognitive, socio-emotional and behavioural domains and 8 Key competencies for sustainability (Figure 1) (Rieckman, 2017).

Thus, ESD has been promoting "knowledge, skills, values and attitudes that empower learners to make informed decisions and take responsible actions for environmental integrity, economic viability and a just society" (Rieckman, 2018, 37), which also defines the formation of environmental awareness.

The aim of the study is to find out how students' environmental awareness (knowledge, skills and attitudes/behaviour) is developed in lessons of Biology in Grade 7 basing on ESD goals, objectives and cross-cutting competencies.

## Methodology

The research question was identified, namely, how does students' environmental awareness improve when integrating the year topic of the Eco-school "Waste" in Biology lessons in Grade7.

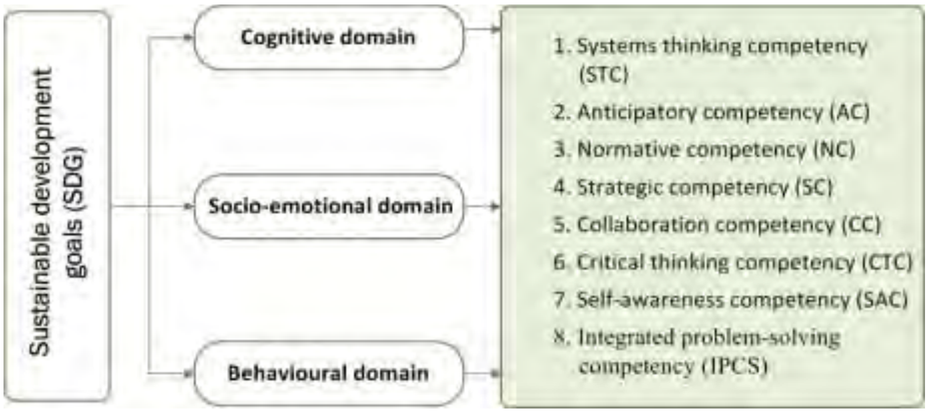


Figure 1. Approach of sustainable development competencies for attaining sustainable development goals.

The study has been performed to find out how students' environmental awareness develops if diverse teaching/learning methods based on ESD goals, objectives and cross-cutting SD key competencies are used in the lessons. The study was organized in school A and 38 students participated in it. The study was organized in three stages: Preparation, Implementation and Assessment (Figure 2).

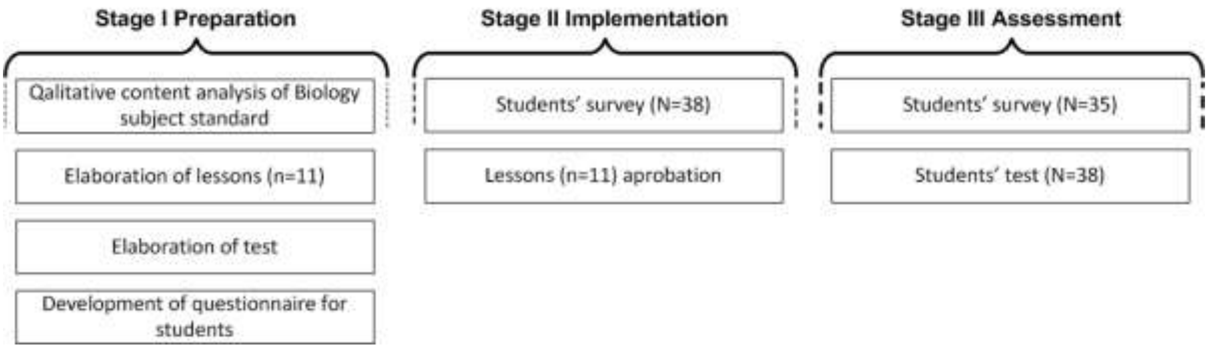


Figure 2. Stages of the present study.

**During Stage I Preparation,** 11 lessons were fully designed, a test was prepared and a questionnaire for students was developed.

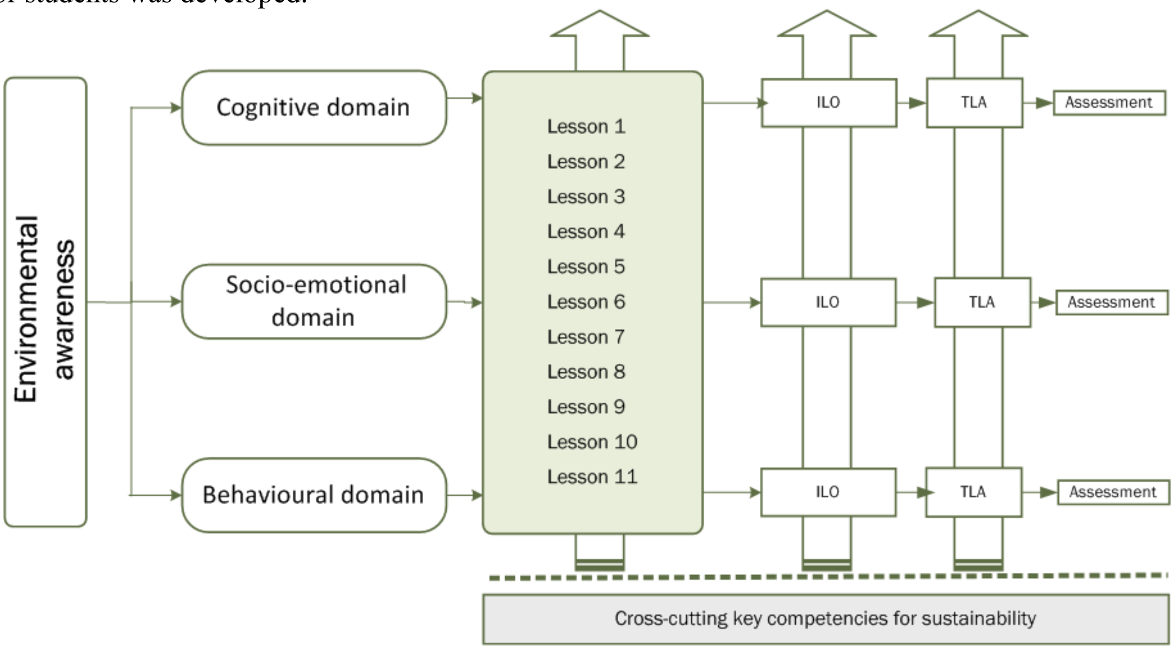


Figure 3. The competency approach for sustainable development in the lesson design.

Lessons were designed based on the competency approach for sustainable development (Figure 3). Each topic of the lesson envisaged to improve students' environmental awareness (Table 1), using diverse teaching learning activities (TLA) to reach specific learning objectives in the cognitive, socio-emotional and behavioural domains, defining intended learning outcomes (ILO) in constructive alignment approach (Biggs, Tang, 2011) and basing on cross-cutting key competencies for SD.

Table 1

**Teaching learning activities implemented in lessons**

| Lessons | Teaching learning activities | SD competencies |
|---|---|---|
| Lesson 1. Theoretical exploration of ecosystems | Project making | CC, STC |
| Lesson 2. Diversity of ecosystems | Gallery method | CC |
| Lesson 3. Diversity of ecosystems | Gallery method | CC |
| Lesson 4. Virtual laboratory work | Virtual research work | STC |
| Lesson 5. Threat to ecosystems– invasive species and waste | Problem solving: Four corners method and Fish-bone method | IPSC, CC, SAC |
| Lesson 6. A court session "Invasive plant – Sosnovskis' (Siberian) hogweed" | Role play | NC |
| Lesson 7. Protection of plants | Work with sources of information, producing infographics | CC, STC |
| Lesson 8. Protection of plants | Work with the text, planning the event | SC, CC |
| Lesson 9. Man-made ecosystems | Work with the text, creative work | STC |
| Lesson 10. Models of ecosystems and the society | Planning of the future ecosystem | AC, IPSC |
| Lesson 11. Summary on ecosystems | Doing tasks in work stations | STC |

In order to find out students' opinions about the improvement of students' knowledge (cognitive domain), skills, attitudes (socio-emotional domain) and behaviour (behaviour domain) in the context of ESD, when integrating the Eco-school's topic of the year, a questionnaire was developed; it was used in surveying students before the acquisition of the topic "Ecosystems" and after the conducted 11 lessons. The questionnaire included open (6) and closed (5) questions. Open questions aimed at finding out students' knowledge and skills. Closed questions on the 3-point Likert scale (1-disagree, 3 – agree) were directed towards learning students' attitude/behaviour.

At this stage a test "The diversity of plants in ecosystems and its preservation" was also prepared; it included two higher cognitive level items on the topic "Waste". Students had to use the problem-solving approach in one of the items, namely, the pollution of the ecosystem with waste, and in the other – to model the future school 2030 as an ecosystem basing on the principles "*from cradle to cradle*" and "*zero waste*".

**Stage II Implementation** included surveying students before the acquisition of the topic "Ecosystems" and after the conducted 11 Biology lessons.

**Stage III Assessment.** A repeated survey was organized and a test was written after the topic had been acquired.

## Results and Discussions

In order to find out how students' environmental awareness is developed in Biology lessons basing on ESD goals, objectives and cross-cutting key competencies, students' responses to the questions included in the questionnaire and their results in the test have been analysed. Cronbach's alpha for the socio-emotional domain and behaviour domain items were 0.754. Kolmogorov-Smirnov's test helped to identify that the sample did not respond to a normal distribution. Mann Whitney U-test, Chi-square test did not show statistically significant differences between students' responses before and after the pedagogical intervention therefore data of descriptive statistics will be further analysed.

Table 2

**Results obtained in open questions: characterising of students' knowledge, skills and attitudes**

| Category (total units of meaning) | Subcategories | Percent of meaning (Before) | Percent of meaning (After) | Students' answers |
|---|---|---|---|---|
| Cognitive domain: Knowledge (38) | What is waste? | 77 | 94 | Things that people do not need anymore, that people leave behind. |
| | | 21 | 6 | Pollution. |
| | What kinds of waste do you know? | 76 | 71 | Waste produced by households. |
| | | 7 | 8 | Industrial waste. |
| | | 5 | 1 | Special waste. |
| | What global environmental problems related to waste have you heard of? | 21 | 23 | There are environment problems (pollution of the nature). |
| | | 21 | 23 | Global warming takes place. |
| | | 16 | 2 | Have not heard of any problems. |
| | | 8 | 18 | Animals die or suffer due to waste in the nature. |
| | What environmental problems related to waste in Latvia have you heard of? | 45 | 8 | Have not heard of any problems. |
| | | 18 | 33 | Nature (forests and waters) is littered. |
| | | 3 | 15 | Animals are endangered because of waste. |
| | | 0 | 20 | Recreation and public places are littered. |
| Practical Skills (38) | How is waste sorted in your family/household? | 20 | 15 | Do not sort waste. |
| | | 17 | 15 | Sort waste paper. |
| | | 14 | 18 | Sort glass. |
| | | 20 | 17 | Sort plastic materials. |
| Socio-emotional domain: Attitudes (38) | What do you do in your everyday life to decrease the formation of waste? | 31 | 13 | Do nothing. |
| | | 31 | 30 | Do not pollute the nature – put waste in waste bins, not litter around. |
| | | 28 | 25 | Sort waste. |
| | | 0 | 13 | Avoid taking plastic bags in the shops, use plastic bags repeatedly. |

Students' knowledge about waste is mainly connected with the real-life experience. The majority of them consider that waste is what people have produced and no longer use, and relate the concept "waste" mainly to the domestic waste.

Relatively many students before starting the acquisition of the topic have not heard anything about different environmental problems either in Latvia or in the world – problems in the world 16 % and in Latvia 45 %. After studying the topic students were able to mention more environmental problems both in Latvia and in the world, as well as the number of students who had not heard about problems with the waste in the world had decreased – 2 %, and Latvia – 8 %.

The habits of sorting the waste had not changed particularly after the acquisition of the topic; however, it should be pointed out that students' everyday activities had changed after the acquisition of the topic –

there were fewer students who did nothing at all (the number decreased from 31 % to 13 %), and 13 % of students started to refrain from taking plastic bags in the shops and use regularly the cotton bags.

Table 3

**Results obtained in closed questions: characterising of students' opinions assessing their actions**

| Items concerning socio-emotional and behavioural domain / Likert scale units | Before (%) | | | After (%) | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 1 | 2 | 3 |
| How important is it to sort waste? | 0 | 42 | 58 | 0 | 40 | 60 |
| How do you evaluate your knowledge about sorting waste? | 3 | 74 | 24 | 0 | 66 | 34 |
| How much do waste problems worry you? | 14 | 51 | 35 | 6 | 69 | 26 |
| How ready are you to change your habits in order to lessen waste problems? | 8 | 60 | 32 | 3 | 60 | 37 |
| How important is each person's participation in decreasing the amount of waste? | 6 | 44 | 50 | 0 | 49 | 52 |

Students' answers in items of socio-emotional and behavioural domain, after the acquisition of the topic show that the number of radically negative answers (1 - disagree) has decreased. The number of positive answers (3 – agree) has not increased notably; however, it could be explained by the fact that students probably have become more critical towards themselves. Still, the majority of students are aware of the importance of sorting waste (60 %), besides at least a half of students consider that each person's participation in diminishing the amount of waste is important.

**Results of the test**

Thirty-eight students write the test after studying the topic. The mean statistical indicators of the test results are asymmetrical with a negative offset because the mode (*Mo* = 7) is bigger than the mean arithmetic (*M* = 6.3) and median (*Mdn* = 6), which means that more students have received the mark that is lower than the value of the mode.

Each item of the test has been statistically analysed and the obtained data are summarized in Table 4. Five items included questions of average difficulty level (0.48–0.64), and three items had been relatively easy (0.67 %–0.78 %). None of the items had been too easy (p > 0.85). The resolution had been calculated from students' eight highest results and eight lowest results. The resolution for three items had been low, four had an acceptable level of resolution and one – high resolution.

Table 4

**Evaluation of test items**

| Number of the item | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |
|---|---|---|---|---|---|---|---|---|
| Maximum number of points to be received | 5 | 11 | 8 | 3 | 6 | 6 | 6 | 5 |
| Average number of points received | 2.78 | 7.08 | 3.82 | 2.35 | 4.39 | 3.14 | 3.41 | 3.33 |
| Mean percentage performance (%) | 56 | 64 | 48 | 78 | 73 | 52 | 57 | 67 |
| Level of difficulty (p) | 0.56 | 0.64 | 0.48 | 0.78 | 0.73 | 0.52 | 0.57 | 0.67 |
| Resolution (D) | +0.25 | +0.44 | +0.14 | +0.21 | +0.43 | +0.66 | +0.47 | +0.45 |

Two items out of eight included in the test were related to the topic of waste, namely, the fourth and eighth. Seventy-eight percent of students had done the fourth item very well; however, from the point of view of the difficulty level, it was the easiest item in the test (p = 0.78), and its resolution had been rather low (+0.21). Thus, it shows that students in the lesson on the problem solving about waste in ecosystems have gained good knowledge.

The eighth item was similar to the item from Lesson 10 about the models of ecosystems and their impact on the society (Table 1). This, too, was the third easiest item of the test according to students' results ($p = 0.67$), its resolution is average ($D = +0.45$). Students have coped with this item successfully, and this allows concluding indirectly that implementing the lesson about the modelling of the future school the majority of students have reached the aim of the lesson– modelling of the School 2030 as an ecosystem applying the principles "*from cradle to cradle*" and "*zero waste*".

**Conclusions**

The integration of the topic "Waste" in the acquisition of Biology in Grade 7 is a big challenge and the eco-school is an appropriate environment for its implementation. It requires from the teacher "stepping out" from the frame of the standard of Biology as a school subject and teacher's initiative in lesson designing including diverse interactive teaching/learning methods in order to reach the ESD specific learning objectives in knowledge, socio-emotional and behavioural domains and defining intended learning outcomes, basing on cross-cutting sustainable development key competencies. Students' high assessment in solving items related to the topic of waste serves as evidence of the knowledge acquisition. The results of the survey, too, show that the level of students' knowledge has increased: the results of students' questionnairing before studying the topic were lower than after the approbation of the lessons. This means that their knowledge about the environmental problems is increasing. It is more difficult to judge about the improvement of their skills and attitudes. The above said means that the formation of the environmental awareness is a long-term process that is connected with the change of students' attitude and behaviour Students' environmental awareness cannot improve if there are no external conditions that would promote it. These are teachers at schools who can facilitate the improvement of the awareness developing strategies for teaching and learning processes towards the improvement of ESD learning; however, it is not sufficient with one topic and one school subject for the students to change significantly environmental awareness.

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# Role of School Principals in High Achievement of Students

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**Abstract**: The role of the principal in a school is critical because a principal is not only an administrator, but also a manager, initiator of various processes and, ideally, also a school leader who furthers various processes in the school and facilitates high achievement among the students. It is therefore important to study the role of the principal and how the principal can facilitate student achievement. The aim of the research study is to carry out a comparative analysis of data from several countries to find out the factors associated with the activities of the principal (directions of professional activity, factors created by the school culture and environment) that facilitate high achievement among students. Data from a survey conducted among school principals within the IEA PIRLS 2016 study have been used for the analysis. IEA PIRLS (*Progress in International Reading Literacy Study*) is a large international comparative study of the reading literacy of grade 4 students. 50 countries, including Latvia, participated in it in 2016. In the article, the data for Latvia are compared with several geographically, culturally and historically close countries, such as Denmark, Germany, Poland, Lithuania, Russia, Finland and Sweden. The results of the research study suggest that the principal has a significant role in the facilitation of the students' achievement, but the association is indirect. The principal furthers various processes in the school, aids the teachers in their professional activity, and builds an environment in the school which facilitates achievement among the students.

**Keywords**: school principals, high student achievement, PIRLS, reading literacy, school education.

## Introduction

The head of an educational establishment (the principal) is the main administrator and manager of a school. As research studies conducted in various countries (Dhuey, Smith, 2014; O'Malley, Long, King, 2015) suggest, the experience of the principal is indirectly associated with the performance of the teachers and students. Furthermore, the greater autonomy of schools and the higher responsibility of the principals would be necessary. A new Cabinet regulation on the national standard for basic education has recently been drafted in Latvia and includes provisions for greater autonomy of schools and higher levels of responsibility for the principals, e.g., "an educational establishment shall build a learning environment which is physically and emotionally secure, it shall facilitate the student's acquisition of social and emotional skills and learning, and it shall be tailored to the diverse learning and development needs of every student", "an educational establishment shall, as early as possible, initially ascertain the basic skills and the learning needs of the student and monitor the growth of each student [..], by giving each student wider opportunities for full involvement in the process of learning" (MK noteikumu projekts…, 2018). This suggests that a school principal should build a school environment in which the aims set with regard to the achievement of the students are attained, by taking care not only of a successful course and organisation of the process of learning, but also of individual approach to each student in consideration of their individual skills and needs. Although principals further various processes in the school, they should be ready for new challenges because the approach to the content of learning will change in Latvia in 2020. Consequently, it is important to understand the current situation and improve the understanding of what is currently working successfully in schools and what is to be improved. Principals as the main manager at school are responsible for managing the major administrative tasks. The most important competences of principals for performing the administrative work are management competence, competence of strategic thinking, communication skills, methodological competence and intellectual competence (Andersone, 2013). Nevertheless, administrative work is one part of principals' work. Principals have the most complex roles in education.

The aim of the research study is to carry out a comparative analysis of data from several countries to find out the factors associated with the activities of the principal (directions of professional activity, factors created by the school culture and environment) that facilitate high achievement among students.

## Methodology

Data from the IEA (*International Association for the Evaluation of Educational Achievement*) PIRLS study (the *Progress in International Reading Literacy Study*) conducted in 2016 have been used in the research study. The results of a survey conducted among the principals of schools in Latvia have been used as the source data, and they are associated with the description of the school, the readiness of the students for learning to read, the experience and education of the principals as well as the expectations of the principals regarding the performance of the students.

The target population of the PIRLS study is students of the 4th grade. Students, their parents, teachers, and also the principals were the respondents in the survey. 150 schools from Latvia participated in the IEA PIRLS 2016 study. Each school principal had to complete a questionnaire containing various questions related to the school and the principal himself/herself. The principals were asked for a description of the school and about the learning times, resources and technologies, the attitude of the school to learning achievement, discipline and security/safety in the school, the readiness of the students for learning to read, reading at school, the experience and education of the principals, and national questions were also asked, such as what support systems are available in the school, what expectations the principals have with regard to the performance of the students and the teachers, and also questions about students with special needs.

The data analysis was performed using the statistical software IBM SPSS 22 and IEA IDB Analyzer programmes. The research methods used in the study are literature analysis and secondary data analysis and analysis of data obtained in IEA PIRLS 20116 study. Descriptive statistics (frequency, means, standard errors and percentages) and correlation analysis was performed. For replication purposes or further analysis, the PIRLS databases are freely available on the website of the IEA's TIMSS and PIRLS International Study Centre.

## Results and Discussion

The questionnaire for schools in the Progress in International Reading Literacy Study (PIRLS) contains various questions for school principals regarding the schools managed by them as well as about the principals themselves. The questionnaire includes questions regarding the experience of the principal in their official capacity and the acquired education. The principals of schools in Latvia have an average of 16 years of experience in the position of the head of an educational establishment, and this is above the average of 10 years for the countries participating in the study. School principals in Lithuania also have an average of 16 years in the position of a school principal. School principals in Latvia and Lithuania have the highest average length of service as heads of schools, but the school principals in Germany and Sweden have the shortest lengths of service (an average of 9 years) among the countries of comparison (Table 1).

Comparatively in all of the countries participating in the PIRLS, 14 % of the students go to schools whose principals have more than 20 years of experience in the capacity of the head of an educational establishment, 31 % of the students have principals whose length of service exceeds 10 years, but is not above 20 years. The principals of 27 % of the students, in their turn, have more than 5, but less than 10 years of work experience, but the principals of 28 % of the students have a comparatively small working experience (less than 5 years). There are comparatively less students in Latvia (17 %) who have principals with a smaller length of service (less than 5 years), 14 % of the students have principals with more than 5, but less than 10 years of working experience. In line with the average for the countries participating in the PIRLS, Latvia also has 31 % of the students who go to schools with principals whose work experience in the capacity of the school principal is more than 10, but less than 20 years. Since, out of all the countries participating in the PIRLS 2016 study, the school principals in Latvia (and also Lithuania) had the greatest length of service, 38 % of the students in Latvia go to schools with principals whose work experience in this official position is 20 or more years.

Based on the analysis of the results of the study, it can be acknowledged that the achievement of the students have no direct correlation with the work experience (length of service) of the principals. This is also proven by other studies where the obtained data suggest that the experience of the principals has no close correlation with the achievement of the students (Brockmeier, Starr, Green, Pate, Leech, 2013).

Table 1

**Work experience of school principals** (Mullis et al., 2016)

| Country | Percent of students by principals' years of experience as a principal | | | | Average years of experience as a principal | Average achievement of the students on the national scale |
|---|---|---|---|---|---|---|
| | 20 years or more | At least 10, but not more than 20 | At least 5, but not more than 10 | Less than 5 years | | |
| Denmark | 10 (2.5) | 37 (3.5) | 24 (3.1) | 30 (3.6) | 10 (0.5) | 547 (2.1) |
| Finland | 20 (3.6) | 33 (4.0) | 24 (3.8) | 23 (3.2) | 12 (0.7) | 566 (1.8) |
| Germany | 12 (2.4) | 29 (3.8) | 24 (3.0) | 35 (3.5) | 9 (0.6) | 537 (3.2) |
| **Latvia** | **38 (4.0)** | **31 (3.6)** | **14 (3.0)** | **17 (3.2)** | **16 0.8** | **558 1.7** |
| Lithuania | 41 (3.7) | 34 (3.6) | 10 (2.3) | 15 (2.7) | 16 (0.7) | 548 (2.6) |
| Poland | 21 (3.7) | 36 (3.5) | 22 (3.5) | 20 (3.9) | 13 (0.7) | 565 (2.1) |
| Russian Federation | 15 (2.4) | 32 (3.3) | 26 (2.9) | 26 (3.5) | 11 (0.6) | 581 (2.2) |
| Sweden | 10 (3.2) | 28 (4.0) | 32 (4.4) | 30 (3.6) | 9 (0.9) | 555 (2.4) |
| International average | 14 (0.4) | 31 (0.5) | 27 (0.5) | 28 (0.5) | 10 (0.1) | 500 |
| Standard errors appear in parentheses. | | | | | | |

Even if the experience of the principal has a correlation with the student achievement, it is very small (Dhuey, Smith, 2014). This does not confirm the view that a more experienced principal facilitates the achievement of the students and a less experienced principal may lower it. For example, school principals in Latvian and Lithuania have an average of 16 years of working experience, but the average reading literacy achievement of grade 4 students in Latvia had the score of 558 points in the PIRLS 2016 study, whereas the score for Lithuania was 548 points (statistically significantly lower than for Latvia). In Russia, the average length of service of the school principals was 11 years, but the average reading literacy achievement of their grade 4 students had the internationally highest score of 581 points. The average length of service of the school principals in Germany and Sweden was 9 years, but the achievement of the students in these countries did not differ. Respectively, the average reading literacy achievement of the Swedish students had the score of 555 points, but Germany had a considerably lower score of 537 points.

The correlation between the length of service of the Latvian school principals and the reading literacy achievement of their grade 4 students in the school managed by them is shown in Table 2, depending on the type of school. It can be seen that the principals of upper and lower secondary schools in Latvia have a higher average length of service in their official position in the school currently managed by them, and a higher length of service of the principal correlates with higher achievement of the students. Although statistically significant, this correlation is weak. The heads of the Latvian primary schools, in their turn, have been holding the office for shorter periods, and the differences in the time spent in the position of a school principal are not as great for the heads of the primary schools as for the principals of the other schools.

Table 2

**Correlation between length of service of principals and achievement of students depending on type of school in Latvia**

| Type of school | Principal's length of service in the current school (years) | Standard deviation | Correlation with achievement |
|---|---|---|---|
| Upper secondary schools | 14.5 | 9.4 | 0.24* |
| Lower secondary schools | 15.0 | 10.1 | 0.16* |
| Primary schools | 9.6 | 5.0 | -0.24 |
| * Significant correlation | | | |

Ninety-two percent of the students in Latvia go to schools managed by principals holding a master's or doctorate degree, whereas 8 % of the students go to an educational establishment managed by a principal with a baccalaureate or an equal degree only. Compared to other countries, Latvia is one of the countries with a comparatively high percentage of students whose school principals have a master's or a doctorate degree

(Table 3). In Latvia, the level of correlation between the achievement of the students and the level of education of the school principal is 0.26 (Pearson's correlation coefficient), and it is statistically significant.

Table 3

**Formal education of school principals** (Mullis et al., 2016)

| Country | Percent of students by principal education level | | | Current requirements | | Average student reading achievement |
|---|---|---|---|---|---|---|
| | Completed master's or doctorate degree | Completed bachelor's degree or equivalent | Did not complete bachelor's degree | Teaching experience | Completion of specialized school leadership training program | |
| Denmark | 18 (2.8) | 73 (3.5) | 9 (2.3) | No | No | 547 (2.1) |
| Finland | 89 (2.3) | 10 (2.2) | 1 (0.5) | Yes | Yes | 566 (1.8) |
| Germany | 90 (1.3) | 1 (0.8) | 9 (1.6) | Yes | No | 537 (3.2) |
| **Latvia** | **92 (2.0)** | **8 (2.0)** | **0 (0.0)** | Yes | No | **558 1.7** |
| Lithuania | 61 (4.0) | 39 (4.0) | 0 (0.0) | Yes | No | 548 (2.6) |
| Poland | 99 (0.7) | 1 (0.7) | 0 (0.0) | - | - | 565 (2.1) |
| Russian Federation | 90 (2.2) | 10 (2.2) | 0 (0.0) | Yes | Yes | 581 (2.2) |
| Sweden | 29 (4.1) | 66 (4.1) | 4 (1.7) | No | Yes | 555 (2.4) |
| International average | 48 (0.4) | 45 (0.4) | 7 (0.2) | | | 500 |
| Standard errors appear in parentheses. | | | | | | |

The education of the heads of the Latvian schools by the types of schools can be seen in Table 4. An absolute majority of the heads of the primary schools in Latvia have a master's degree, approximately 2 % of the school principals in Latvia hold a doctorate degree, and, compared to other types of schools, the principals of the lower secondary schools more often have a baccalaureate degree.

Table 4

**Formal education of heads of Latvian schools (by types of schools) and corresponding average achievement of students**

| Acquired education | Upper secondary schools | | Lower secondary schools | | Primary schools | |
|---|---|---|---|---|---|---|
| | Percent of principals | Average student achievement | Percent of principals | Average student achievement | Percent of principals | Average student achievement |
| Baccalaureate | 8.9 | 556 | 30.9 | 522 | 3.7 | - |
| Master's | 89.2 | 556 | 66.3 | 535 | 96.3 | 550 |
| Doctorate | 2.0 | 570 | 2.8 | 562 | - | - |

The researchers indicate that the principal has an indirect influence on the student achievement (Soehner, Ryan, 2015). Furthermore, there are research studies which confirm that the principal has significant influence on the student's results in mathematics and reading (Dhuey, Smith, 2014). The principal may indirectly influence the achievement of the students by supporting the work of the teachers. A study conducted in Germany revealed that the involvement of the principal is a trigger for school innovations. If there is more involvement from the principal, the teachers become more creative (Koch, Binnewies, Dormann, 2015). The Swedish researcher Leo Ulf (2015), in his turn, points out an issue that principals try to get involved in the process of learning and be a part of it, but there is not always enough time for it, and observing the lessons of the teachers is not systematic. Principals should be closer to the teaching and learning process, and the internal organisation of the school should be developed in order to facilitate learning (Ulf, 2015).

In the survey conducted within the PIRLS 2016 study, the principals were also asked questions like "Does your school provide a place where students can work on their schoolwork before or after school?" and "Is someone available to assist them with their schoolwork?" 93 % of the school principals in Latvia specified that their school provided a place where the students can do their homework before or after the lessons, and, moreover, 94 % of the principals specified that the school also had a person who helps the students with their homework (Table 5). The analysis of the responses of the principals to the above questions leads to a conclusion that the students have opportunities for doing their homework before or after their lessons. Thus, the school provides a place where the students can do it. This might be explained by the extended school day groups where there are teachers who help the students after the lessons to do their homework as well as carry out other activities. It should be noted that most of the students in Latvia go to schools in which the principals provide a place for doing their homework and a person who helps the students to do it. It can be seen that the reading achievement level is higher among the grade 4 students of the schools with no place or person who helps to do homework. Apparently, no such service is offered in cases when it is not necessary.

However, the situation is not similar in all countries (Table 5). For most of the countries selected for the comparison, the average reading literacy achievement of the grade 4 students is higher in the schools where the students have no access to a person who would help them in doing their homework. The situation is also similar in Poland where the achievement of the students is higher in the schools for which the principals have specified that there was neither a place in the school where a student could do their homework before or after the lessons not a person to help the student with doing it. Compared to the other nearest neighbouring countries of Latvia, such results are not unambiguous. In Russia and Finland, the average achievement of the students is higher in the schools for which the principals have specified that there is a place in the school where the students can do their homework before or after their lessons. In Germany, the student achievement does not change depending on such opportunity. Conversely, in Poland, Lithuania, Latvia, Russia and Sweden, the students have higher average scores in the schools for which the principals have specified that the school has no person who helps the students with their homework. Only in Denmark, the average achievement of the students is higher in the schools where there is a person who helps them do their homework. Nevertheless, it cannot be stated that the average achievement of the students is statistically significantly different in these groups in all the countries.

Table 5

**Average achievement of students depending on school support measures available to them for doing homework**

| Country | Does your school provide a place where students can work on their schoolwork before or after school? | | | | Is someone available to assist them with their schoolwork? | | | |
|---|---|---|---|---|---|---|---|---|
| | Yes | No | Students average achievement | | Yes | No | Students average achievement | |
| | | | Yes | No | | | Yes | No |
| Denmark | 60% (4.07) | 40% (4.07) | 548 | 545 | 71% (5.63) | 29% (5.63) | 552 | 541 |
| Germany | 72% (4.07) | 28% (4.07) | 536 | 536 | 98% (1.20) | 2% (1.20) | 536 | 539 |
| Poland | 89% (3.48) | 11% (3.48) | 564 | 571 | 97% (2.14) | 3% (2.14) | 564 | 582 |
| Lithuania | 77% (4.7) | 23% (4.7) | 550 | 545 | 95% (2.61) | 5% (2.61) | 548 | 561 |
| **Latvia** | **93% (1.35)** | **7% (1.35)** | **556** | **567** | **94% (2.55)** | **9% (2.55)** | **554** | **568** |
| Russian Federation | 46% (5.49) | 54% (5.49) | 589 | 573 | 94% (4.07) | 6% (4.07) | 588 | 598 |
| Finland | 60% (5.97) | 40% (5.97) | 568 | 561 | 78% (5.88) | 22% (5.88) | 568 | 568 |
| Sweden | 69% (5.63) | 31% (5.63) | 556 | 553 | 98% (1.33) | 2% (1.33) | 555 | 559 |
| Standard errors appear in parentheses. | | | | | | | | |

As already stated before, a principal has an indirect influence on the learning achievement of students. Research studies suggest that the work of a principal influences the results of students in mathematics and reading (Dhuey, Smith, 2014) as well as has a significant role in the diversification or change of the approaches in the acquisition of reading literacy in the school (Puzio, Newcomer, Goff, 2015). M. Purvins, who has analysed the factors which influence the learning achievement in the schools of general education in Latvia, states that several hundreds of factors that influence the achievement of students can be found in the theoretical sources, but there is no consensus among the researchers regarding the extent of such influences and whether the factors have positive or negative influences on the achievement of the students. M. Purvins highlights three factors as the most significant: cases of missing school, number of students in the school and the classroom, age of starting education (Purvins, 2017). When viewing the influence of the school on the achievement of the students, the preparedness of the students upon starting their 1st year at schooling should also be taken into account.

With the help of school principals, the percentage of students able to complete certain tasks associated with reading literacy (ability to recognise most of the letters of the alphabet, read some words or sentences, read a story, write letters of the alphabet or some words) at the start of their 1st year at school was determined in the PIRLS 2016 study. More than a half of the Latvian students have the above skills upon starting their 1st year at school. This is related with the skills the child is taught in the family and the skills children acquire in a pre-school educational establishment. In Lithuania, for example, only 8 % of students start their 1st year in a school where more than 75 % of the students have the said early skills (Table 6). In Latvia, schools often collaborate with the nearby pre-school educational establishments and thus facilitate the attraction of grade 1 students. It is important to have a closer collaboration between teachers of grade 1 and pre-school teachers. Moreover, not only to assure a more successful adaptation of the grade 1 students in the school, but also to improve the preparedness of the future students for school, and also to make sure that, upon starting their school years, students have acquired the skills the school expects from them. The key organiser in the facilitation of this collaboration is the principal who promotes and organises these collaboration opportunities.

Table 6

**Schools where students enter the primary grades with literacy skills** (Mullis et al., 2016)

| Country | Schools where more than 75% enter with skills | | Schools where 25-75% enter with skills | | Schools where less than 25% enter with skills | |
|---|---|---|---|---|---|---|
| | Percent of students | Average achievement | Percent of students | Average achievement | Percent of students | Average achievement |
| **Latvia** | **53 (4.7)** | **560 (2.8)** | **44 (4.6)** | **557 (2.9)** | **3 (1.3)** | **525 (12.5)** |
| Denmark | 36 (4.1) | 553 (3.6) | 59 (4.1) | 546 (2.9) | 5 (1.6) | 530 (9.0) |
| Sweden | 23 (3.8) | 569 (5.1) | 72 (4.1) | 553 (2.6) | 5 (1.8) | 519 (8.5) |
| Poland | 14 (3.3) | 558 (6.1) | 56 (4.9) | 565 (2.9) | 30 (4.2) | 567 (5.1) |
| Finland | 11 (2.7) | 576 (5.3) | 87 (3.0) | 564 (2.1) | 2 (1.2) | - - |
| Russian Federation | 10 (2.1) | 599 (6.9) | 63 (2.9) | 588 (2.5) | 27 (2.6) | 556 (5.1) |
| Lithuania | 8 (2.1) | 555 (6.0) | 66 (3.6) | 552 (3.4) | 26 (3.5) | 536 (4.8) |
| Germany | 0 (0.0) | - - | 29 (3.2) | 552 (3.9) | 71 (3.2) | 530 (4.9) |
| International average | 22 (0.4) | 516 (1.6) | 47 (0.5) | 512 (0.8) | 31 (0.4) | 491 (1.0) |
| Standard errors appear in parentheses. | | | | | | |

The influence of the work of school principals on the achievement of the students also manifests as, for instance, initiation, organisation and/or maintenance of various support systems in their school. Within the PIRLS 2016 study survey, the Latvian principals answered a question regarding the additional support systems the schools have for the students, teachers and the parents of the students (Figure 1). A majority of the principals indicated that there were additional lessons available for the students for the improvement of their reading literacy as well as a support system for the parents and the teachers.

Support systems are available in schools with both high and low achievement in Latvia. The introduction and implementation of support systems in the schools does not suggest higher reading literacy results among the students, but is to be evaluated positively because it shows that the schools are interested in improving the reading literacy of the students and in providing the necessary support to the parents and the teachers.

The previously analysed data also confirm the conclusions drawn in other research studies that the association between the principal and the achievement of the students is indirect. The principal furthers positive changes in the school, and this improves the achievement of the students. Furthermore, if there are high expectations from the management in the school, the students try to fulfil such expectations (Cotton, 2013).

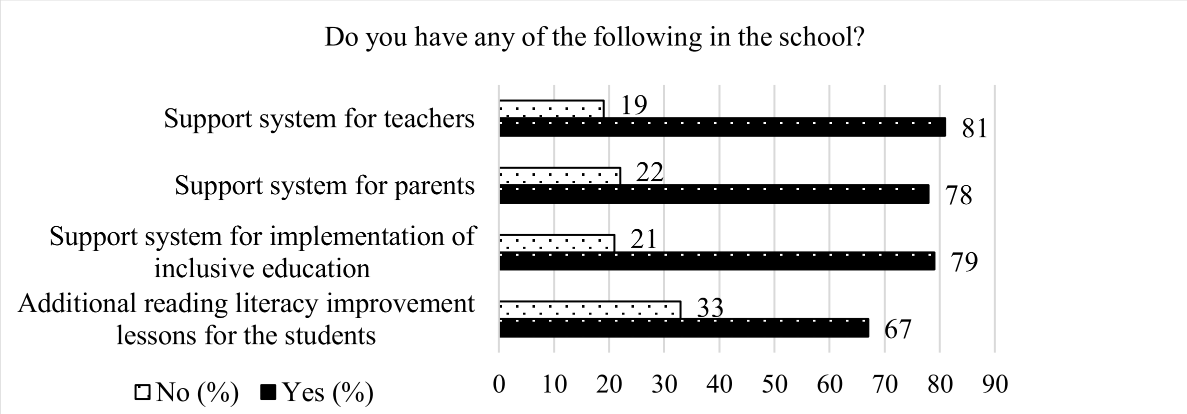


Figure 1. Support systems for teachers, students and parents in the school.

When taking a look at to what extent the Latvian school principals agree with various statements regarding the student achievement, it can be seen that 44 % of the principals have specified that they agree entirely and 54 % of the principals have specified that they rather agree with the statement that they expect high achievement from the students of their schools (Table 7).

Table 7

**Expectations of Latvian school principals with regard to the achievement of the students of their schools and the corresponding average achievement of the students**

| Statements | How much do you agree with each of these statements? | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Agree a lot | | Agree a little | | Disagree a little | | Disagree a lot | |
| | Percent of princi-pals | Student achieve-ment | Percent of princi-pals | Student achieve-ment | Percent of princi-pals | Student achieve-ment | Percent of princi-pals | Student achieve-ment |
| I expect high achievement from the students | 44 (5.60) | 550 | 54 (5.60) | 539 | 2 (0.79) | 543 | 0 (0.32) | 531 |
| I expect from the parents of the students that they will help the students gain high achievement | 43 (4.13) | 551 | 49 (4.74) | 541 | 6 (2.96) | 538 | 2 (1.57) | 499 |
| Teachers know that high student achievement is expected from them | 54 (6.16) | 545 | 41 (6.55) | 545 | 4 (2.44) | 526 | 0 (0.32) | 531 |
| High student achievement is a key target of the school | 39 (5.41) | 551 | 53 (5.97) | 540 | 7 (2.68) | 541 | 0 (0.32) | 531 |
| Standard errors appear in parentheses. | | | | | | | | |

The absolute majority of the principals in schools with both low and high achievement in Latvia agree with the statements regarding the achievement of the students provided in Table 7. Although there is a low percentage of the principals who have not agreed with these statements, it is still an indicator that the principals have not set high student achievement as a priority, but conditions are created in the school to favour them.

## Conclusions

Based on the analysis of the role of the principals in high student achievement, it has to be emphasised that the role of the principal is significant in the facilitation of high student achievement, but the association of the principal with the achievement of the students is, however, indirect. The principal manages various processes in the school, favours circumstances which assure a successful learning process for the students, facilitate the professional activity of the teachers, and, consequently, improve the achievement of the students as well. As concluded in the research study, the experience of the principals has a weak association with the achievement of the students. In a school of an experienced principal, students do not always have higher achievement compared to a school with a less experienced principal, and, furthermore, a less experienced principal does not necessarily mean that the achievement of the students will drop.

Another significant indicator is the previous preparedness of the students when starting their 1st year at school. A task of school principal is to create conditions to improve reading literacy among the students who have started their schooling without it and also support the teacher and facilitate their professional activity. The principal is, therefore, responsible not only for the assurance of the learning process, but also for focused support in the process of teaching and the activities of the teachers by building a support system or creating conditions that improve the student achievement.

The school environment built by the principal together with the teachers is also a substantial factor. For example, giving an opportunity for the students to do their homework at school by providing a place where the students can do it. However, there are no grounds for claiming that, in Latvia, the achievement of students is positively influenced by whether there is a suitable place for doing homework or any support staff who could help the students does it. However, it should be taken into account that it is a good practice and that principals should provide such an opportunity in the future as well.

It is essential that the management of the school expects high achievement from the students because this facilitates and improves the achievement of the students. The higher the expectations of the principal and the teachers, the more the students try to meet them. Therefore, school principals should build an environment and culture in their schools where all (the management, the teachers and the parents) have high expectations with regard to the achievement of the students.

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# A Reflection of the Quality of Education in the Use of Teaching Aids and the Importance of Lifelong Learning

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**Abstract**: Teaching aids have become a standard part of the educational process and their appropriate integration into education provides countless opportunities for both teachers and students, from activation of students, their better motivation to learn, more illustrative explanation of the curriculum through demonstrations, and many others. The aim of the paper is to analyse the way of using selected groups of teaching aids (namely products of nature, models, visual teaching aids and literary teaching aids) based on previous experience of graduates of secondary schools, university students at the time of the exploratory survey. The authors focused on a study of statements revealing the perception of the learners of the ability of their teachers to integrate teaching aids into their lessons. In particular, the attention was focused on the examples of bad practices or mistakes connected with the didactic aspects of the teachers of secondary schools. The target group consists of 196 undergraduates of Bachelor's degree of the Institute of Education and Communication of the Czech University of Life Sciences Prague specializing in Teacher Training who have successfully completed the course focused on the effective use of educational resources in the educational process. A questionnaire was used as tools of the survey during the academic years 2015-2016 and 2016-2017. The qualitative survey gives a look at the resulting categories of mistakes affecting the quality of education that some teachers make during their lessons when integrating teaching aids. The authors emphasize the need to be aware of such deficiencies and, in the context of the subject under investigation they underline the importance of lifelong learning.

**Keywords**: quality of education, teaching aids, demonstration, lifelong learning, secondary education.

## Introduction

The quality of education is influenced by many factors. One of the key factors is the didactic aspect of the educational process, in this respect related to educational activities of teachers (Strategy for Education ..., 2014). Teacher education is multidisciplinary and the fundamentals of so-called professional competencies are acquired by future teachers as a part of their undergraduate studies at universities (Nemejc, 2017). This ensures that teachers have extensive subject knowledge, a good knowledge of pedagogy, the skills and competencies required to guide and support learners, and an understanding of the social and cultural dimension of education. However, to keep up with the changes, new trends and demands of today's modern society, lifelong learning and career development of teachers are key priorities. In other words, the teaching profession should be seen as a continuum, which includes initial teacher education, induction and continuing professional development (Common European Principles ..., 2009; Petty, 2014).

In the context, the authors focus specifically on *the quality of teaching and learning in terms of the didactic aspect of education through the use of teaching aids* at the level of secondary education.

There are a lot of categories of didactic material means contributing, on condition of their proper use, to more effective achieving of educational goals, to presentation and demonstration of the curriculum in different ways, to activation of students, to motivation to learn, to rationalization and intensification of the work of teachers, and many others (Nemejc, Smekalova, Slavik, 2017). As a part of didactic material means, in particular teaching aids are defined as means mediating or imitating the reality, helping to enhance the illustration (demonstration) and facilitating teaching and learning (Prucha, Walterova, Mares, 2009). A common feature of teaching aids is primarily their illustrative function (so called principle of demonstration), consisting in the fact that teaching aids affect the senses and so students get more specific and comprehensive ideas of what they are learning (Ross, Ford, Bruce, 2007). All this is connected also with other functions of teaching aids that include the following properties: they are the source of the didactic information, they have an immediate link to the curriculum and especially to learning objectives, they contribute to easier memorization of the curriculum, they motivate the students and arouse their interest in the subject matter, they fulfil the role of feedback - inform the students about how they understand the subject matter and specify the learning process, they support the self-study since students can study on their own and out-of-school on the basis of observations, their own experience from the lessons, and the like. Students, through the use of material didactic means, form their imagination and are more effective in preparing to move from the theoretical level into the practical, real life, as they can not only hear teachers' explanations and interpretations but they are supported by the integration of appropriate didactic means in teaching and learning (Dostal, 2008; Petty, 2014). In this respect, teachers should be able to demonstrate and analyse presented teaching aids, to highlight their most essential features and to summarize it all in the whole which is emphasized by G. Petty (2014) claiming that formal definitions, abstract explanations and descriptions are not enough for most students and the more ways information is presented to students, the better they understand it.

In the case of classification, teaching aids come in different forms that differ slightly from one author to another one. K. Nemejc, L. Smekalova and M. Slavik (2017) use the following categorisation:

- *original objects and real phenomena, including products of nature* (e.g. devices and tools, equipment, works of art, samples of materials, plants and animals, rocks, herbaria, taxidermies, processes);
- *models* (showing either an object or some principle, static models or dynamic models);
- *visual teaching aids* (e.g. photos, wall paintings, drawings on the blackboard, maps, overhead projector transparencies);
- *auditory teaching aids* (e.g. musical recordings - singing, recordings of musical instruments, concerts, sound recordings of natural phenomena, spoken recordings - listening exercises, dictations, narration, radio broadcasting);
- *audio-visual teaching aids* (TV broadcasting, educational movies and videos, computer animations, internet videos);
- *literary teaching aids* (both printed and digital textbooks, workbooks and sheets, professional literature, periodicals);
- *electronic teaching aids* and *internet services* (computer software with an educational potential, educational applications, presentation slides, e-learning, m-learning).

In addition to the above-mentioned desirable aspects of the use of teaching aids, however, there are also extremes, such as too many teaching aids included in the teaching unit (rather distracting than supporting the learning process), few illustrative materials and teaching aids, their chaotic integration into teaching, and so on. It is therefore necessary to be able to choose the appropriate kind of teaching aids for the educational process and to apply adequate methodological principles in the use of individual groups of teaching aids, such as the principle of demonstration (visualisation) of the subject matter, the feedback principle, the principle of connection of theory and practice, the principle of individual approach to students.

Various authors worldwide are constantly discussing the issue of the use of teaching aids in the educational process. S.M. Prathoshni, V.V. Priya, and R. Gayathri (2018) confirm, based on their survey on the effect of teaching aids on the student's academic performance that many students believe that teaching aids are very useful for learning as teaching aids provide students with realistic experience, which gains their attention and helps in understanding of the concept. E. Priyambodo and S. Wulaningrum (2017) give evidence in the same line, and that all their respondents agree that the teaching learning process using the teaching aids could improve their learning motivations and similarly they point out that the use of teaching aids can increase attention, and students focus more on the learning process. V. Dislere stressed the importance of the use of teaching aids in teacher education and specifies teaching aids' location in the didactic and methodology structure (Dislere, 2012, 203-206). Active teaching/learning methods during lessons were analysed by I. Kepaliene with colleagues (Kepaliene, Zygaitiene, Jakovleva, 2016, 81).

On the other hand, research results can also be found in the scientific literature following the above-mentioned extremes associated with the use of teaching aids. For example, it has been proven by I.L. Rivero, A.L. Padron and E.Z. Izaguirrethat (2012) that teachers from their research declared an occasional use of teaching aids in the teaching and learning process, indicating that teaching aids were not integrated as a didactic component. From the above stated it is obvious that teachers play a crucial role in supporting the learning experience of their learners (Common European Principles ..., 2009), therefore, lifelong learning of teachers should be considered as a standard to ensure their continuing professional development and the provision of effective education of their students, even in the case of the integration of teaching and learning activities and resources which relate to learners' real life goals (Petty, 2014).

In the Czech school environment, the issue of teaching aids has been described only to a small extent (Jancarikova, Jancarik, 2017) and it has not been explored sufficiently. To find out insights into the above outlined, the aim of the paper is to analyse the way of using selected categories of teaching aids by the teachers based on previous experience of graduates of secondary vocational schools and grammar schools, in particular in the context of the quality of implementation of education.

**Methodology**

The aim of the paper was *to analyse the way of using selected categories of teaching aids (namely products of nature, models, visual teaching aids, literary teaching aids) in the context of the quality of education* based on previous experience and subjective views of graduates of secondary schools (secondary vocational schools and grammar schools) who were university students at the time of the exploratory survey. Simply said, the researchers focus on perceptions of learners on the competence of educators to work with teaching aids.

Thus, the survey was focused on a study of free statements of the respondents to *open-ended questionnaire items* about how their secondary school teachers used particular groups of teaching aids during the lessons and where, according to them, in the context of these aids their teachers probably made mistakes, if any. In other words, what must be avoided in the future to ensure the quality of education?

The exploratory survey reflects the following question as perceived by students: *What mistakes do teachers make most commonly in their lessons, if any, when using the selected categories of teaching aids?* In particular, the survey aims to find out whether and what kind of mistakes and bad practices the respondents recorded in the lessons of their teachers at secondary schools in connection with selected categories of teaching aids. Such formulated subjective statements of the students were quantified and listed as *categories of examples of common teachers' mistakes and bad practices*. The survey is of the nature of a qualitative research for its specific issues that require respondents' own detailed statements.

The target group consisted of undergraduates of Bachelor's degree of the Institute of Education and Communication of the Czech University of Life Sciences Prague (IEC CULS Prague) specializing in Teacher Training who have successfully completed the course focused on the effective use of didactic means (both material - teaching aids, educational technologies, and interdisciplinary liked also with non-material means - i.e. methods and forms of teaching) in the educational process, and so having a clear idea and experience with the effective use of material didactic means during lessons and in teaching outside the school environment.

*An anonymous online questionnaire* was chosen as the most relevant tool of the data collection. Namely, the following items of the questionnaire related to their own opinions and experience were given to the respondents:

1. *Products of nature:* Write down your opinion(s) on what mistakes (if any) did your secondary school teachers make most commonly in the context of these teaching aids used during their lessons.
2. *Models:* Write down your opinion(s) on what mistakes (if any) did your secondary school teachers make most commonly in the context of these teaching aids used during their lessons.
3. *Visual teaching aids:* Write down your opinion(s) on what mistakes (if any) did your secondary school teachers make most commonly in the context of these teaching aids used during their lessons.
4. *Literary teaching aids:* Write down your opinion(s) on what mistakes (if any) did your secondary school teachers make most commonly in the context of these teaching aids used during their lessons.

The four selected open-ended questions and a closed-ended item (tracking the background of the respondent - graduate of a secondary vocational school or a grammar school) were created and distributed to the respondents at the IEC CULS Prague at the end of selected courses of the academic years 2015-2016 and 2016-2017.

The total amount of respondents was 196 undergraduates, of which 120 were graduates of secondary vocational schools and 76 were those of grammar schools. Due to the personal contact of the researchers with the target groups, the response rate reached 100 %. The data were analyzed and processed using descriptive statistics, focusing on the kind of secondary school the respondents graduated from, but regardless of their gender and age. Summarization of the empirical data enabled an insight into the investigated issue and subsequently to interpret the findings detected.

**Results and Discussion**

A total of 196 Bachelor students specializing in Teacher Training at the Institute of Education and Communication participated in the questionnaire survey. Specifically, they were 120 graduates of secondary vocational schools and 76 graduates of grammar schools. The respondents were asked to fill in four particular open-ended questions finding their opinion(s) on what mistakes (if any) did their secondary school teachers make most commonly in the context of the four selected groups of teaching aids (i.e. products of nature, models, visual teaching aids, literary teaching aids) used during their lessons. As each of the four questions was an open-ended item, the number of respondents' statements to each category of teaching aids was unlimited. Similarly, if the respondents did not notice any mistakes (thus bad practices) in their secondary school lessons, there was no need to write down any comment and the space to answer remained blank. It means that the number of statements does not match the number of respondents (the number of statements may be lower when the respondents have concluded that they had not noticed mistakes during the lesson of their four-year secondary school studies, or on the other hand higher, if they had several comments to bad practices of their teachers within a particular category of teaching aids).

For the four selected categories of teaching aids that were under our exploration a total of 764 statements were collected through the questionnaire survey (467 from graduates of secondary vocational schools, 297 from graduates of grammar schools), with the following frequencies:

Products of nature: 117 statements (graduates of secondary vocational schools), 81 statements (graduates of grammar schools), 198 in total,

Models: 113 statements (graduates of secondary vocational schools), 72 statements (graduates of grammar schools), 185 in total,

Visual teaching aids: 123 statements (graduates of secondary vocational schools), 70 statements (graduates of grammar schools), 193 in total.

Literary teaching aids: 114 statements (graduates of secondary vocational schools), 74 statements (graduates of grammar schools), 188 in total.

To explain the data shown in Table 1 to Table 4 below the statements of the respondents for all four groups of teaching aids were quantified and allowed to create appropriate categories of the most common mistakes (bad practices) of teachers in integration of the selected groups of teaching aids. Based on analysis of all individual statements, the main categories were listed under the criterion that at least six respondents' statements appear in one of the two kinds of secondary schools. Resulting from this criterion, for statements that occurred sporadically a category *"other statements (categories not specified)"* was created for each group of teaching aids concerned in the exploratory survey. The percentage distribution of the statements was calculated proportionally in each of the categories of respondents' answers, namely individually for graduates of secondary vocational schools, those of grammar schools, as well as the sum of all the statements (concerning teachers of both secondary vocational schools and grammar schools) in each of the categories. Finally, *25 % of the most represented categories and 25 % of the least represented categories are highlighted in the results* of Table 1 to Table 4.

**Students' perceptions of the use of products of nature in the educational process by their secondary school teachers**

Concerning the first item of the questionnaire dealing with the evaluation of the use of the products of nature, the following statements of the undergraduates specializing in Teacher Training were investigated.

*Products of nature (meant real things): Write down your opinion(s) on what mistakes (if any) did your secondary school teachers make most commonly in the context of these teaching aids used during their lessons.*

Of the total number of 196 respondents (120 secondary vocational schools, 76 grammar schools), there were 117 statements of graduates of secondary vocational schools and 81 statements of graduates of grammar schools, 198 in total. In accordance with the above given criterion, eight particular categories and one category for the other non-specified statements were created. The overview of these categories and the percentage distribution of students' statements (i.e. of the most common mistakes/ bad practices of teachers when using such teaching aids in the educational process) in relation to the type of the secondary school they graduated from are provided in Table 1.

Table 1

**Products of nature: the most common mistakes (bad practices) of teachers in their integration in the educational process**

| **Statements concerning teachers of SVS** count (%) | **Statements concerning teachers of GS** count (%) | **Categories of the most common mistakes (bad practices)** | **Sum of the statements concerning teachers of SVS + GS** count (%) |
|---|---|---|---|
| 39 (33.33) | 23 (28.40) | Sending the teaching aid around the classroom distorts students' attention from the teacher's talk | 62 (31.31) |
| 16 (13.67) | 16 (19.75) | Using poor quality teaching aids (e.g. worn, torn, incomplete, without important recognition characters, ...) | 32 (16.16) |
| 12 (10.26) | 14 (17.28) | Imperfect knowledge of the teaching aid (unpreparedness of the teacher, inadequate description, etc.) | 26 (13.13) |
| 17 (14.53) | 6 (7.41) | The teaching aid, where appropriate, is not available in large quantities | 23 (11.62) |
| 7 (5.98) | 8 (9.88) | Poor visibility of the teaching aid (e.g. a small specimen) | 15 (7.58) |
| 10 (8.55) | 4 (4.94) | A low rate of the use of such teaching aids | 14 (7.06) |
| 6 (5.13) | 5 (6.17) | No option to explore the teaching aid closer (without activation of students) | 11 (5.56) |
| 6 (5.13) | 1 (1.23) | Too fast teacher's pace when using the teaching aid | 7 (3.54) |
| 4 (3.42) | 4 (4.94) | Other statements (categories not specified) | 8 (4.04) |
| **117 (100.00)** | **81 (100.00)** | | **198 (100.00)** |

Note: SVS - secondary vocational schools; GS - grammar schools

From the didactic point of view, it is desirable that teacher talk be illustrated with a visual presentation where possible. Nevertheless, Table 1 represented by the results of the undergraduates clearly displayed that both the respondents of secondary vocational and grammar schools pointed to certain methodical mistakes of their teachers.

It is therefore possible to answer the question of the survey: *What mistakes do teachers make most commonly in their lessons, if any, when using the products of nature?*

Overall, most of the statements concerned *"distracting students' attention when circulating teaching aids around the classroom during teacher's talk"* (a total of 31.31 % of the statements) and the experience with *"using poor quality teaching aids"* (16.16 % of the statements). In addition, especially graduates of secondary vocational schools pointed out that *"the teaching aid, where appropriate, is not available in large quantities"* (14.53 % cases). It means, based on students' subjective views these are the most serious mistakes in teachers' approach and it is desirable to consider and avoid such bad practices in order to provide a quality and effective teaching and learning environment, optimally through self-reflection of teachers, feedback from their students, colleagues, through lifelong learning, and so on.

**Students' perceptions of the use of models in the educational process by their secondary school teachers**

The item evaluated the use of models as perceived by teacher candidates based on their subjective view and experience.

*Models: Write down your opinion(s) on what mistakes (if any) did your secondary school teachers make most commonly in the context of these teaching aids used during their lessons.*

Out of 196 respondents, a total of 185 statements were recorded and divided into eight particular categories. The criterion to create a specific category from at least six respondents' statements was respected. A category for the other non-specified statements was created, too. The list of the categories and the percentage distribution of students' statements (the most common mistakes of teachers when integrating models) in relation to the type of the secondary school they graduated from are displayed in Table 2. The analysis of students' statements showed that also in case of the use of models the respondents noticed various teachers' mistakes of different range during their four-year secondary school studies contributing to poorer quality of the educational process.

Table 2

**Models: the most common mistakes (bad practices) of teachers in their integration in the educational process**

| **Statements concerning teachers of SVS** count (%) | **Statements concerning teachers of GS** count (%) | **Categories of the most common mistakes (bad practices)** | **Sum of the statements concerning teachers of SVS + GS** count (%) |
|---|---|---|---|
| 22 (19.48) | 13 (18.06) | No option to explore the model closer (without activation of students) | 35 (18.92) |
| 23 (20.36) | 12 (16.67) | Inaccurate or chaotic description of the teaching aid | 35 (18.92) |
| 20 (17.70) | 8 (11.11) | Poor visibility of the teaching aid (e.g. for students from the backside) | 28 (15.14) |
| 12 (10.62) | 7 (9.72) | A low rate of the use of such a teaching aid | 19 (10.27) |
| 7 (6.19) | 7 (9.72) | Too fast teacher's pace when using the teaching aid | 14 (7.57) |
| 3 (2.65) | 9 (12.50) | Using poor quality teaching aids (e.g. damaged, incomplete, non-functional) | 12 (6.48) |
| 10 (8.85) | 2 (2.78) | Imperfect knowledge of the teaching aid - the aspect of handling the aid (e.g. inability to take the model to pieces) | 12 (6.48) |
| 5 (4.42) | 6 (8.33) | Integration of the teaching aid without any explanation or description (just referring to it) | 11 (5.95) |
| 11 (9.73) | 8 (11.11) | Other statements (categories not specified) | 19 (10.27) |
| **113 (100.00)** | **72 (100.00)** | | **185 (100.00)** |

Note: SVS - secondary vocational schools; GS - grammar schools

The question of the survey *"What mistakes do teachers make most commonly in their lessons when using models, as perceived by students?"* can be answered.

In terms of the frequency of the statements, these findings can be considered as essential for both secondary vocational and grammar schools. The quality of education can be negatively affected by the facts that there is *"no option to explore the model closer"* which means there is no relevant activation of the students (a total of 18.92 % of the statements) as well as teachers' *"inaccurate or chaotic description of the teaching aid"* (18.92 % of the statements). Statements listed in other categories appeared to a much lesser extent, however it is essential to prevent from such examples of teachers' inability to use this group of teaching aids effectively, such as *"a low rate of the use of such a teaching aid"*, *"too fast teacher's pace when using the teaching aid"*, *"using poor quality teaching aids"*, i.e. damaged, incomplete, or non-functional models, and *"imperfect knowledge of the teaching aid"* from the point of view of handling the model.

**Students' perceptions of the use of visual teaching aids in the educational process by their secondary school teachers**

As regards the analysis of the evaluation of the use of visual teaching aids (i.e. in our survey mainly posters and other wall educational pictures) by the teachers of secondary vocational schools and grammar schools as perceived by their graduates, contemporary university students, the following was found (Table 3). The research question was as follows:

*Visual teaching aids: Write down your opinion(s) on what mistakes (if any) did your secondary school teachers make most commonly in the context of these teaching aids used during their lessons.*

Table 3

**Visual teaching aids: the most common mistakes (bad practices) of teachers in their integration in the educational process**

| **Statements concerning teachers of SVS** count (%) | **Statements concerning teachers of GS** count (%) | **Categories of the most common mistakes (bad practices)** | **Sum of the statements concerning teachers of SVS + GS** count (%) |
|---|---|---|---|
| 21 (17.06) | 13 (18.56) | Using poor quality teaching aids (e.g. torn, faded, worn with use) | 34 (17.62) |
| 19 (15.45) | 10 (14.29) | Poor visibility of the teaching aid (e.g. inappropriate placement) | 29 (15.03) |
| 14 (11.38) | 10 (14.29) | Inaccurate or chaotic description of the teaching aid | 24 (12.43) |
| 15 (12.20) | 9 (12.86) | Outdated or not topical teaching aid (outdated information, diagrams, ...) | 24 (12.43) |
| 14 (11.38) | 3 (4.29) | A low rate of the use of such teaching aids (e.g. a class decoration only) | 17 (8.81) |
| 9 (7.32) | 7 (10.00) | Integration of the teaching aid without any explanation or description (just referring to it) | 16 (8.29) |
| 10 (8.13) | 4 (5.71) | The teaching aid does not have a direct connection with the topic (inappropriate timing) | 14 (7.25) |
| 6 (4.88) | 0 (0.00) | Inappropriate presentation of the teaching aid (blocking students' view, improper demonstration, ...) | 6 (3.11) |
| 15 (12.20) | 14 (20.00) | Other statements (categories not specified) | 29 (15.03) |
| **123 (100.00)** | **70 (100.00)** | | **193 (100.00)** |

Note: SVS - secondary vocational schools; GS - grammar schools

Of the total number of 196 respondents (120 secondary vocational schools, 76 grammar schools), 123 statements were provided by graduates of secondary vocational schools, 70 statements by graduates of grammar schools, i.e. 193 statements in total. Based on the above given criterion, eight specific categories and one category for the other non-specified statements were created dealing with the most common mistakes/ bad practices of teachers when using such teaching aids in the educational process.

Evidently, the following categories became apparent as represented by the highest frequency of the statements, both concerning the didactic approach of secondary vocational school and grammar school teachers. The answer to the survey question *"What mistakes does teachers make most commonly in their lessons when using visual teaching aids, as perceived by students?"* comes below.

Bad practices, suppose that unintentional, lowering the quality of education by the teachers' incompetence when integrating visual teaching aids are mainly as seen by the respondents: *"the use poor quality teaching aids"* (a total of 17.62 %), *"poor visibility of the teaching aid"* connected e.g. with its inappropriate placement (15.03% of the statements) or *"inaccurate or chaotic description of the teaching aid"*.

The remaining particular categories included also a certain amount of students' observations related to a didactically improper use of visual teaching aids, but these were of a much lesser extent. They related e.g. to *"outdated or not topical teaching aids"*, *"a low rate of the use of such teaching aids"* or to *"integration of the teaching aid without any explanation or description"*. Without discussions, such performance of some teachers has no benefit for the students. As G. Petty (2014) pointed out it is advisable to use such kind of teaching aids, but it is necessary to justify didactically whether the whole class can read the visual teaching aid, whether it is simple enough for the message to be clear, and/or whether it is attractive for the target group of the students.

**Students' perceptions of the use of literary teaching aids in the educational process by their secondary school teachers**

As for the last item of the questionnaire dealing with the evaluation of the use of literary teaching aids, the following viewpoints of the respondents were detected:

*Literary teaching aids: Write down your opinion(s) on what mistakes (if any) did your secondary school teachers make most commonly in the context of these teaching aids used during their lessons.*

Table 4

**Literary teaching aids: the most common mistakes (bad practices) of teachers in their integration in the educational process**

| **Statements concerning teachers of SVS** count (%) | **Statements concerning teachers of GS** count (%) | **Categories of the most common mistakes (bad practices)** | **Sum of the statements concerning teachers of SVS + GS** count (%) |
|---|---|---|---|
| 19 (16.67) | 9 (12.16) | A frequent rate of the use of such teaching aids (e.g. lessons based on reading texts) | 28 (14.89) |
| 14 (12.28) | 13 (17.56) | Using text teaching aids for self-study only (without explanation, teacher's talk, feedback) | 27 (14.37) |
| 18 (15.79) | 8 (10.81) | Outdated or not topical teaching aid (literature, texts, ...) | 26 (13.83) |
| 14 (12.28) | 9 (12.16) | Inappropriately chosen teaching aids (content, format, errors in the text) | 23 (12.23) |
| 10 (8.77) | 8 (10.81) | Imperfect knowledge of the teaching aid (unpreparedness of the teacher, unfamiliarity with the text) | 18 (9.57) |
| 10 (8.77) | 4 (5.41) | A low rate of the use of such teaching aids | 14 (7.45) |
| 9 (7.89) | 4 (5.41) | Inappropriate integration of the teaching aid during the lesson (e.g. demonstration only to students in the front places, etc.) | 13 (6.91) |
| 4 (3.51) | 6 (8.11) | Literary teaching aids are required, but during the year they are used minimally | 10 (5.32) |
| 16 (14.04) | 13 (17.57) | Other statements (categories not specified) | 29 (15.43) |
| **114 (100.00)** | **74 (100.00)** | | **188 (100.00)** |

Note: SVS - secondary vocational schools; GS - grammar schools

Of the total number of 196 respondents (120 secondary vocational schools, 76 grammar schools), there were 114 statements of graduates of secondary vocational schools and 74 statements of graduates of grammar schools, 188 in total. Altogether, eight particular categories and a category for the other non-specified statements were created. The overview of the results is provided in Table 4.

The findings clearly showed that also here the respondents recorded certain teachers' failings of different range connected with the inefficient use of literary teaching aids in the lessons during their four-year secondary schools studies, again both at secondary vocational schools and grammar schools.

It is therefore possible to answer the last question of the survey: *What mistakes do teachers make most commonly in their lessons when using literary teaching aids, as perceived by students?*

Generally, most of the statements denoting the negative didactic effects in teaching and learning concerned *"a frequent rate of the use of such teaching aids"* connected for example by lessons based plainly on reading texts (14.89 %), *"using text teaching aids for self-study only"* without explanation, teacher's talk, feedback, … (14.37 %), *"use of outdated or not topical teaching aids"* (13.83 %) or *"inappropriately chosen teaching aids"* in the sense of the content, format, errors in the text (12.23 %). In this regard, it is recommended rather than ineffective way of using the literary teaching aids, to understand a concept different presentations and practical learning can be done for easier understanding of that concept (Prathoshni, Priya, Gayathri, 2018). In addition, it is necessary to be for the teachers to be aware of other possible aspects affecting the effectiveness of the educational process and the performance of the teacher itself. For example, the students can easily recognize the unpreparedness of the teacher for the lesson or their unfamiliarity with the text.

## Conclusions

The exploratory survey reflected the following research question: What mistakes do teachers make most commonly in their lessons when using selected groups of teaching aids? If any, as perceived by their students which were university students at the time of the exploratory survey.

Undoubtedly, in the subject of interest of the researchers, there many teachers who are fully competent in terms of the didactic aspect of their performance in the process of education. Nevertheless, the findings of the authors clearly show that the respondents (of both secondary vocational schools and grammar schools) perceived various examples of bad practices, or certain didactical mistakes, when integrating products of nature, models, visual teaching aids and literary teaching aids in their lessons. As a result, in terms of the quality of education it means that such an integration of teaching aids may be counterproductive as students could easily lose their attention, they are not activated by the teacher, there is no interaction between the teacher and the students, and finally there is no reason to make the lesson diverse in this way.

As the results reveal that, there are some teachers who are unable to integrate these teaching aids effectively it is desirable for the teachers to be aware of such possible deficiencies, which may have a negative impact on the quality of the educational process. In this regard, the authors underline the significance of the self-reflection of teachers, sharing of experience and information with their colleagues, the learning by continuous feedback from their students and they point to the important role of lifelong learning. In the case of lifelong learning, the continuous process of the development of knowledge, intellectual abilities, competencies and practical skills for example through informal individual activities (retraining courses) or informally in the form of self-education from everyday activities (activities at work, leisure time, and so on) cannot be neglected.

The authors believe that the results could be useful for educational policy makers, for institutions preparing teachers for their future career and for teachers themselves, although, they are aware that the issue of the evaluation of the effective integration of didactic means in the educational process requires much more attention and therefore more extensive studies are planned in the future.

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# The Use of Information and Communication Technologies of Pedagogical Specialities Students in the Study Process

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**Abstract**: Information and Communication Technologies (ICT) are important for teachers because it needs to be effectively integrated ICT into the formal classroom teaching and learning conditions, so integration of ICT in teacher education is of great significance. The aim of the study was to compare the use and impact of the use of ICT on the study process of full-time (FT) and part-time (PT) pedagogical specialities students. The electronic survey of the 1st course pedagogical specialities FT and PT students from the University of Latvia was carried out. Altogether 118 students were questioned. The results of the research showed that the majority of surveyed pedagogical specialities students use ICT for study purposes 1-2 or 2-4 h during day. Different FT students use ICT more differently in comparison with PT students. FT students more often than PT students use ICT for different activities connected with study process but PT students in comparison with FT students more often use ICT for searching information to do home works. The majority of surveyed students evaluate their knowledge and skills in the using of ICT as good. The majority of students agree or rather agree that the use of ICT gives positive impact on different stages of the study process. The use of ICT helps better involvement in the study process, makes students more independent during study process, gives them possibilities to get more new information and better communicate during study process, the use of ICT makes studies more exciting and gives positive impact on the acquisition of the study content. More FT students (67 %) in comparison with PT students (31 %) agree that the use of ICT gives ability for better understanding of different processes and more FT students (45 %) in comparison with PT students (8 %) fully evaluate positive impact of the use of ICT on the acquisition of the study content. Students agree or rather agree to the negative impact of the use of ICT on the lifestyle. The results of the research suggest that the majority of pedagogical specialities students understand the necessity of acquiring ICT during study process.

**Keywords**: university education, students, ICT, positive impact, negative impact.

## Introduction

The actual European Union Digital Agenda suggests to exploit in a better way the massive potential offered by information and communication technologies (ICT), with the view to promote innovation, economic growth and progress. For the university students, ICT is playing an important role, enabling them to acquire the necessary competences and skills required in their studies and/or for the nowadays digital world, targeting also on helping them to be easily inserted in the labour market after finishing their studies (Gorghiu, Gorghiu, Pascale, 2018). Teachers today are being forced to rethink the meaning of the terms ‘literacy’ and ‘literacy education’. Traditional printed text as a primary means of communication, learning and information storage and transfer is rapidly being superseded. Technology is therefore shifting the ways in which people learn and communicate (Nettelbeck, 2005). Students see information and communication technologies (ICT) as a potential new way of fostering excellence and innovation, as well as an opportunity to challenge existing classroom practices. ICT plays a critical role in enhancing the teaching and learning processes of the distance education programmes (Owusu-Ansah, 2018).

Students’ attitudes to computers in school are affected by their experience at home (Cullingford, Haq, 2009). If the students have had a great deal of experience, and use ICT at home, then they should be curious about what might be made new for them in the more erudite world of school. They might be aware of the great potential for computers in the teaching of a range of subjects or have had experience, not only through the World Wide Web, but also through television, of the rich presentations of historical facts, scientific wonders and well-illustrated accounts of other subjects. If they are innocent of such technology at home, they might arrive with either great hope or greater apprehension. The prior knowledge and awareness of using ICT by students is important (Cullingford, Haq, 2009). There are significant differences between schools in terms of students' ICT usage, both for entertainment and school-related tasks. The only school-related factor that seems to be important for students' ICT usage is the student's involvement in ICT-related tasks at school (Gumus, 2013).

Didactic usability of the ICT is suggested by L. Dauvarte and V. Dislere in Home economics and technologies lessons for preparing video material and creation of presentations; for implementation of practical workshops: creation of different compositions, drawing, designing patterns for clothing, test-building in e-environment. The most important thing in any learning process about didactic usability of ICT is to prepare teachers to understand their teacher's role and learn to respect the learners' autonomy, authenticity, learning styles and motivation (Dauvarte, Dislere, 2015). Recently, the use of ICT in career counselling as an additional consultancy technique at school has become popular. ICT-based e-guidance is fast developing both in schools and for adults (Racene, Dislere, 2014).

Different investigations have shown that the use of ICT positively affects students' academic achievements (Nwosu et al., 2018; Ishtiaq et al., 2017) and improve students' learning motivation (Becta ICT Research, 2003). However, the efficiency of ICT usage to a large extent depends on how well educators and students can use modern technologies (Mamani, Cipi, 2013). Surveys of students suggest that students consistently prefer their instructors to use ICT in their teaching, including lectures as well as individual and group work in class (Fichten et al., 2015). There are some technologies that students say work well for them but not many professors use in their teaching, such as online tests/quizzes, podcasts, and clickers. However, there are technologies that both students and professors agree did not facilitate learning, such as digital text books, blogs and chat rooms (Fichten et al., 2018). Highlights of the student surveys indicate that there are no significant differences between nationalities and genders in their attitude to the use of ICT in study process (King et al, 2017). The findings show that there is no significant difference in the attitude of bachelor education students towards ICT with regard to discipline, course of study, gender, locality, and aided colleges of education but bachelor education students are better than college students in their attitude towards ICT (Sekar, Lawrence, 2015). Students ICT availability at school is positively associated with student academic success, whereas student ICT availability at home is negatively associated with student academic success (Hu et al, 2018).

Teacher education consists of sets of events and activities, which are deliberately intended to help candidates to acquire the skills, dispositions, knowledge, habits, attitudes values, norms, which enable them to enter the occupation of teaching (Sekar, Lawrence, 2015). ICT exemplified by the internet and interactive multimedia are obviously of great significance for teachers. It needs to be effectively integrated ICT into the formal classroom teaching and learning conditions. The integration of ICT in teaching in general and teacher education in particular is the need of the day. Its adequate recognition and fulfilment of relevant needs is crucial for integration and effective utilization of quality education programmes (Sekar, Lawrence, 2015).

The aim of the study was to compare the use and impact of the use of ICT on the study process of full-time and part-time pedagogical specialities students.

## Methodology

The electronic survey of the 1st course pedagogical specialities full-time (FT) and part-time (PT) students from the University of Latvia was carried out. Altogether 118 students were questioned (52 FT students and 66 PT students). The survey was worked out in order to clarify the time, which pedagogical specialities students spend using ICT for purposes connected with study process and not connected with study process, the use of ICT by students for different activities connected with study process, the self-assessment of students' knowledge and skills in the using of ICT and evaluation of students' attitude to positive and negative impact of the use of ICT on the study process. The answers of FT and PT students were compared.

SPSS statistical data processing program was used for statistical analysis. Mann–Whitney U test was used for data analysis.

The research question was: how much students use ICT and what is the attitude of students to the use of ICT during study process?

## Results and Discussion

The results of investigation showed that the majority of surveyed pedagogical specialities students use ICT for study purposes 1-2 or 2-4 hours (h) during day (Figure 1). Thirty nine percent of part time (PT) students use ICT 1-2 h during day and 46 % of them use ICT 2-4 h during day. Different full time (FT) students use ICT more differently in comparison with PT students. Twenty-two percent of surveyed FT students use ICT less than 1 h during day, 45 % of them use ICT 1-2 h during day, 11 % of students use ICT 2-4 h during day but 22 % of FT students use ICT for study purposes more than 4 h during day.

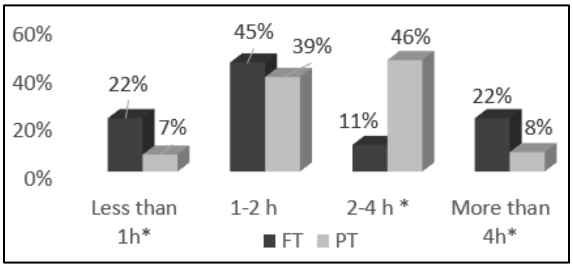


Figure 1. The use of ICT by students for study purposes (in % from the number of respondents) (* p<0,05).

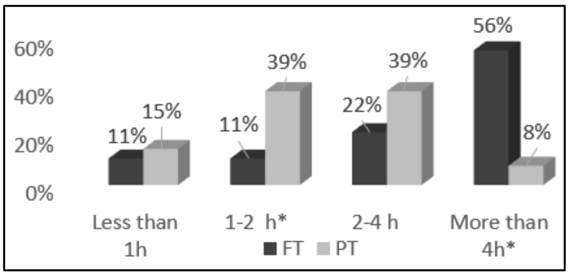


Figure 2. The use of ICT by students not connected with study purposes (in % from the number of respondents) (* p<0,05).

FT students use ICT more than PT students for purposes not connected with study process (Figure 2). 56 % of FT students use ICT for purposes not connected with studies more than 4 h during day but the majority of part time students until 4 h during day (39 % of PT students use 1-2 h during day and 39 % 2-4 h during day).

FT students more often use ICT for different activities connected with study process (Table 1). The majority of FT students (67 %) use ICT to accomplish home works almost every day but the majority of PT students (62 %) use ICT to accomplish home works some times during week.

Table 1

**The use of ICT by students for different activities connected with studies (in % from the number of respondents) (* p<0,05)**

| Activities | Answer | Groups of students | |
|---|---|---|---|
| | | FT students | PT students |
| Accomplish home works | Never | 0 | 0 |
| | Some times during month * | 0 | 23 |
| | Some times during week * | 33 | 62 |
| | Almost every day * | 67 | 15 |
| Searching information for doing home works | Never | 0 | 0 |
| | Some times during month | 11 | 15 |
| | Some times during week * | 56 | 31 |
| | Almost every day | 33 | 54 |
| Contact with people for carrying out home works | Never | 0 | 15 |
| | Some times during month * | 10 | 31 |
| | Some times during week * | 45 | 23 |
| | Almost every day | 45 | 31 |
| Make calculations for doing home works | Never | 22 | 31 |
| | Some times during month | 11 | 15 |
| | Some times during week | 45 | 39 |
| | Almost every day | 22 | 15 |
| Keep up study e-environment | Never | 0 | 8 |
| | Some times during month * | 0 | 15 |
| | Some times during week * | 0 | 23 |
| | Almost every day * | 100 | 54 |

FT students also more often contact with people for carrying out home works, make calculations for doing home works and keep up study e-environment (100 % of FT students almost every day keep up study e-environment but only 54 % of PT students do the same). The majority of PT students (54 %) almost every day search information for doing home works but the majority of FT students (56 %) search information for doing home works some times during week. Thirty three percent of FT students search information for doing home works almost every day.

The majority of students evaluate their knowledge and skills in the using of ICT for finding information as good (67 % of FT students and 54 % of PT students). More full-time students (45 %) in comparison with part-time students (23 %) evaluate their knowledge and skills in the using of ICT for communication as excellent (Table 2).

Table 2

**Self-evaluation of knowledge and skills for using of ICT by students (in % from the number of respondents) (* p<0,05)**

| Kind of using of ICT | Knowledge and skills | Groups of students | |
|---|---|---|---|
| | | FT students | PT students |
| Use of Microsoft Office | No knowledge and skills | 0 | 0 |
| | Bad | 0 | 0 |
| | Medium | 33 | 31 |
| | Good | 56 | 54 |
| | Excellent | 11 | 15 |
| Create multimedia presentations (audio, video, text) | No knowledge and skills | 11 | 8 |
| | Bad * | 11 | 31 |
| | Medium * | 11 | 23 |
| | Good * | 67 | 31 |
| | Excellent | 0 | 8 |
| Evaluate the credibility of the found information | No knowledge and skills | 0 | 8 |
| | Bad | 0 | 8 |
| | Medium | 45 | 30 |
| | Good | 45 | 54 |
| | Excellent | 10 | 0 |
| Use of ICT for finding information | No knowledge and skills | 0 | 0 |
| | Bad | 0 | 0 |
| | Medium * | 11 | 46 |
| | Good | 67 | 54 |
| | Excellent * | 22 | 0 |
| Use of ICT for communication | No knowledge and skills | 0 | 0 |
| | Bad | 0 | 0 |
| | Medium * | 22 | 8 |
| | Good * | 33 | 69 |
| | Excellent * | 45 | 23 |

The majority of surveyed students agree or rather agree that the use of ICT gives positive impact on the different stages of the study process (Table 3).

All FT students (100 %) and the majority of PT students (85 %) agree or rather agree that the use of ICT promotes better involvement of students in the study process. The majority of students (77 % of FT students and 56% of PT students) fully agree that the use of ICT makes students more independent during study process. The majority of students rather agree (44 % of FT students and 54 % of PT students) or agree (44 % of FT students and 31 % of PT students) that the use of ICT gives ability for better acquiring of new information. The majority of students rather agree or agree that the use of ICT promotes better communication during study process (89 % of FT students and 85 % of PT students), and makes the learning process more exciting (81 % of FT students and 76 % of PT students). More FT students (67 %) in comparison with PT students (31 %) fully agree that the use of ICT promotes better understanding of different processes but more PT students (23 %), in comparison with FT students (8 %) rather do not agree to this consumption. It seems that FT students in comparison with PT students little higher evaluate the role of ICT in different stages of study process.

Table 3

**The positive impact of the use of ICT by students on the different stages of the study processes (in % from the number of respondents) (* p<0,05)**

| Activities | Answer | Groups of students | |
|---|---|---|---|
| | | FT students | PT students |
| Better involvement in the study process | Do not agree | 0 | 0 |
| | Rather do not agree | 0 | 15 |
| | Rather agree | 45 | 39 |
| | Agree | 55 | 46 |
| More independent during study process | Do not agree | 0 | 5 |
| | Rather do not agree | 0 | 0 |
| | Rather agree | 23 | 39 |
| | Agree | 77 | 56 |
| Better acquiring of new information | Do not agree | 12 | 0 |
| | Rather do not agree | 0 | 15 |
| | Rather agree | 44 | 54 |
| | Agree | 44 | 31 |
| Better communication during study process | Do not agree | 11 | 0 |
| | Rather do not agree | 0 | 15 |
| | Rather agree | 33 | 39 |
| | Agree | 56 | 46 |
| Makes the learning process more exciting | Do not agree | 11 | 8 |
| | Rather do not agree | 8 | 16 |
| | Rather agree | 22 | 31 |
| | Agree | 59 | 45 |
| Better understanding of different processes | Do not agree | 3 | 8 |
| | Rather do not agree * | 8 | 23 |
| | Rather agree | 22 | 38 |
| | Agree * | 67 | 31 |
| Positive impact to the acquisition of the study content | Do not agree | 0 | 8 |
| | Rather do not agree | 7 | 8 |
| | Rather agree | 48 | 76 |
| | Agree * | 45 | 8 |

The majority of the surveyed students evaluate the positive impact of the use of ICT on the acquisition of the study content. Ninety-three percent of FT students and eighty-four percent of PT students rather or fully evaluate positive impact of the use of ICT on the acquisition of the study content. More FT students (45 %) in comparison with PT students (8 %) fully evaluate positive impact of the use of ICT on the acquisition of the study content. The results of the research suggest that the majority of pedagogical specialities students understand the necessity of acquiring ICT during study process.

A part of students also sees the negative impact of the use of ICT on the lifestyle or mutual relations (Table 4). Thirty-seven percent of FT students and forty-six percent of PT students agree that the use of ICT leads to the formation of addictions. The majority of students (66 % of FT students and 70 % of PT students) also agree that the use of ICT promotes sedentary lifestyle. There are different opinions of students about impact of the use of ICT on mutual relations of students.

Table 4

**The negative impact of the use of ICT by students on the lifestyle or mutual relations (in % from the number of respondents) (* p<0,05)**

| Activities | Answer | Groups of students | |
|---|---|---|---|
| | | FT students | PT students |
| Leads to the formation of addictions | Do not agree * | 21 | 8 |
| | Rather do not agree | 21 | 15 |
| | Rather agree | 21 | 31 |
| | Agree | 37 | 46 |
| Promotes sedentary lifestyle | Do not agree | 12 | 0 |
| | Rather do not agree | 0 | 7 |
| | Rather agree | 22 | 23 |
| | Agree | 66 | 70 |
| Worsen mutual relations | Do not agree | 20 | 15 |
| | Rather do not agree | 26 | 31 |
| | Rather agree | 30 | 23 |
| | Agree | 24 | 31 |

## Conclusions

- The majority of surveyed pedagogical specialities students use ICT for study purposes 1-2 or 2-4 h during day. Different FT students use ICT more differently in comparison with PT students. FT students use ICT more than PT students for purposes not connected with study process. Many FT students (56 %) use ICT for purposes not connected with studies more than 4 h during day.
- FT students more often than PT students use ICT for different activities connected with study process: accomplish home works, contact with people for carrying out home works, make calculations for doing home works and keep up study e-environment. PT students in comparison with FT students more often use ICT for searching information to do home works.
- The majority of surveyed students evaluate their knowledge and skills in the using of ICT as good. More FT students (67 %) in comparison with PT students (31 %) are good in creating multimedia presentations.
- The majority of surveyed students agree or rather agree that the use of ICT gives positive impact on the different stages of study process. The use of ICT helps better involvement in the study process, makes students more independent during study process, gives them possibilities for better acquiring new information and better communication during study process, the use of ICT makes studies more exciting. More FT students (67 %) in comparison with PT students (37 %) agree that the use of ICT gives ability for better understanding of different processes. The majority of the surveyed students evaluate the positive impact of the use of ICT on the acquisition of the study content. More FT students (45 %) in comparison with PT students (8 %) fully evaluate positive impact of the use of ICT on the acquisition of the study content.
- The majority of surveyed students agree or rather agree to the negative impact of the use of ICT on the lifestyle: it leads to the formation of addictions, promotes sedentary lifestyle, and a part of students admit that the use of ICT worsen mutual relations.

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# Modern Educational Domain: Cross-cultural Issues in Teaching Foreign Languages

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**Abstract**: the topicality of the research stems from diverse linguistic and cultural fusion due to increasingly growing number of people who are able to speak two or more languages globally. The research goal is to reveal the level of cross-cultural competence of the university teaching staff and, correspondingly, elaborate a new proposal of a selection procedure for the applicants on the teaching positions simultaneously stating that being natural bilingual or multilingual teacher can be far more beneficial within modern educational domain. To visualize possible prospects and advantages of cross-cultural flexibility of natural bilingual and multilingual teachers within modern educational domain a special study was carried out. The research incorporated two clusters of the participants: the students (210) and the teaching staff (50) at Plekhanov Russian University of Economics. To achieve the aim of the study, the researchers' team used a set of methods: 1) theoretical analysis to verify practical findings; 2) monitoring of the courses attendance to check a level of students' engagement; 3) word association test to track a difference between various patterns of teachers' cross-cultural flexibility; 4) elaboration of a new selection procedure stages for the teaching staff (foreign language positions). The authors of the research paper put forward a hypothesis that natural bilingual or multilingual teachers are far more prone to demonstrate cross-cultural flexibility in a classroom, as they are highly disposed to demonstrate shiftability, adaptability, responsiveness and sensitivity within the interaction framework implying cultural and linguistic diversity of the students. The results obtained demonstrated a high students' perceptiveness to a teacher's ability to orientate in a new cultural environment, to facilitate a teacher-student or student-student communication by easily adapting to a different culture; diversification of values, beliefs, norms and standards. The researchers elaborated a new proposal of a selection procedure for the applicants on the teaching positions (foreign languages) at the University, which resulted in its final form at the assessment and evaluative stage of the study and has been successfully implemented so far in HR university practices. This proposal comprises a sequence of obligatory stages and exposes a preference towards natural bilingual or multilingual teachers with convincing degree of cross-cultural flexibility.

**Keywords:** cross-cultural flexibility in classroom, bilingualism, multilingualism, university education.

## Introduction

The historic mission of education is multifaceted and implies three main milestones such as training, upbringing and development of an individual. Essentially the role of education comes to personal evolution from transmission of ethical and cultural values to preparedness for performing various social roles. It should be noted that the mission of education differs dramatically from how it was delivered two decades ago. Nowadays it reflects concepts adjusted to the uttermost to the present-day cross-cultural educational landscape which centres around two liaisons: an agent (a teacher) and a beneficiary (a student).

Their interaction and integration into the educational domain play the core role in the learning process modelling. This article focuses on the teacher, his impact on training, upbringing and development of an individual (student) within the environment in which classroom represents a body with coexisting cultures, values and beliefs.

There have been a lot of debates among educators on the teacher's role, profile and influence on the effectiveness of the learning process (Barry, 2010; Markova, 1996; Navickiene, Urneziene, 2017; Zimnyaya, 2000). It should be highlighted that A.K. Markova (1996) made an attempt to represent features of a teacher which are divided into objective and subjective ones. Objective features include educational background and field-specific knowledge. Subjective features embrace knowhow skills, personal experience and ability to convey and transmit possessed knowledge. Personal features implicate charisma, psychological peculiarities and moral attitudes to those involved in the educational process.

A.K. Markova (1996) defined a teacher as a subject of educational activity identifying three interdependent components such as teaching activities, pedagogical communication and personality. In the framework of the model “activities-communication-personality” several authors highlighted a set of pedagogical abilities determining the efficiency of learning process: goal-setting, critical thinking, self-analysis, sensitivity, professional focus (Barry, 2010; Creasy, 2015; Danilane, Lubkina, Lubkins, 2007; Pridane, 2018, 322).

Despite the fact there have been conducted a lot of research studies dedicated to the role and influence of a teacher (Kniel, 2009; Lasauskiene, Bagdonaviciute, 2018; Markova, 1996; Zimnyaya, 2000) nevertheless we should acknowledge that more attention should be paid to the cultural component. Today the majority of universities are striving for large international students’ intake as it increases the indexes of universities’ ranking in different systems such as QS World University, Round University Rankings, etc. Unfortunately, in many cases the institutions of higher education haven’t worked out yet any mechanisms to mediate between host and invited or joined parties. Among the main arising issues encountered by arriving students are challenges directly connected with cultural adaptation and attempt to find balance between dominant (host party’s) culture and submissive (their own) culture. On the one hand, international students have to blend into a new habitat, on the other hand, they display strong willingness to preserve their authenticity and not to be exposed to any kind of cultural transformation or what is even worse cultural isolation.

Cross-cultural education scholars all argued that pedagogy must be «culturally responsive» (Gay, 2000, 2001; Guido, 2017; Ladson-Billings, 1995a, 1995b; Nilsson, Kong, Hubert, 2016) and «culturally inclusive» (Baptiste, Key, 1996; Key, 1996; Designing Culturally Inclusive…, 2018) addressing globalizing world challenges and hence teachers have to demonstrate a disposition to become culturally responsive (Samuels, 2018), to develop relevant abilities which are to be gained not abstractly or uncoupled from cross-cultural communication but through active engagement into it.

It’s beyond dispute that being culturally flexible or responsive is not merely a matter of implementing relevant teaching techniques and methods but «it is primarily a matter of tailoring instruction to incorporate assumed traits or customs of particular cultural groups» (Villegas, Lucas, 2002, 27).

All these tenets entitle the authors to add to the list of pedagogical abilities the new one “cross-cultural flexibility” which is to serve to mitigate cultural differences and bridge cultural gaps (Figure 1).

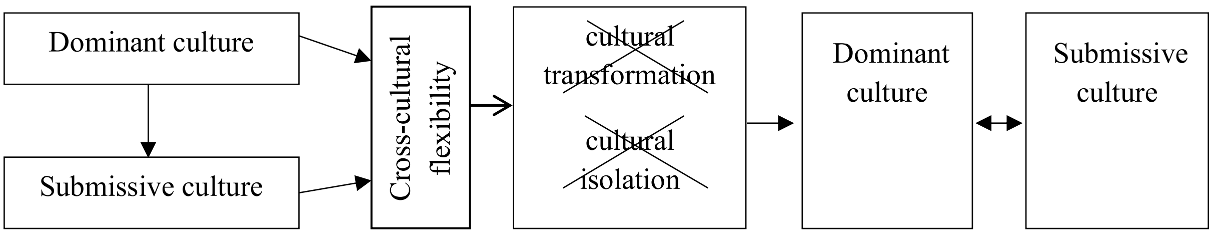


Figure 1. Cultures’ correlation in a classroom.

The authors determine cross-cultural flexibility as a teacher’s ability:

- «to orientate in a new cultural environment, to facilitate a teacher-student or student-student communication by easily adapting to a different culture» (Rezepova et al., 2018, 114);
- «to orientate in a new cross-cultural environment, to select appropriate teaching techniques and methods to provide effective cross-cultural communication through group learning and peer tutoring; to eliminate any outpouring of cultural transformation and isolation» (Gordeeva, Stepanenko, Torosyan, 2018, 766).

Cross-cultural flexibility represents an assembly of abilities of a teacher to respond correspondently to the beneficiaries’ high aspirations and requirements in terms of cultural interblending and interfusion. All these abilities are unpacked below which is illustrated in Figure 2.

To facilitate the adaptation of international students with diverse racial, ethnic, cultural and language background an educator is to demonstrate abovementioned abilities to successfully manage cross-cultural classroom. All these abilities pieced together give a revealing insight into the teacher’s cross-cultural competence which is defined as the acquisition of culture-specific knacks needed «to (a) function effectively within a new cultural context and/or (b) interact effectively with people from different cultural backgrounds» (Wilson, Ward, Fischer, 2013, 900).

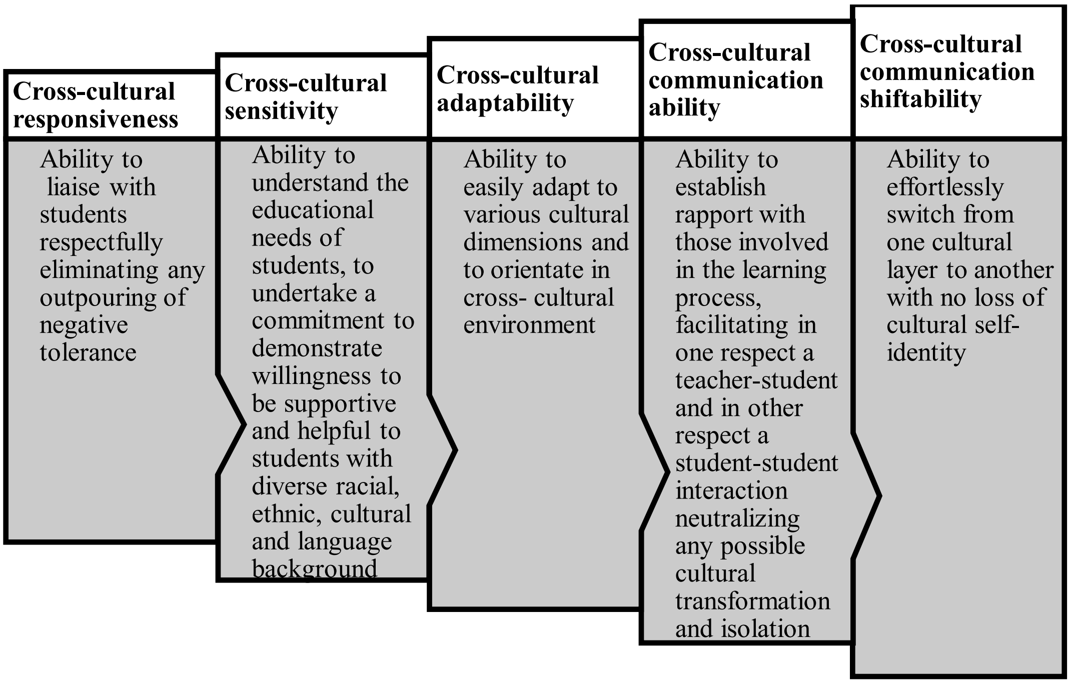


Figure 2. Assembly of abilities.

*All these specify the aim of the study* which is to reveal the level of cross-cultural competence of the university teaching staff and, correspondingly, put forward a new proposal of a selection procedure for the applicants on the teaching positions.

## Methodology

Modern university students tend towards self-centred positioning and claim to be able to extract all subject-matter information, there is a crucial need to pose a challenge to get them interested. This very fact highlights an irrefutable issue on a new frame of teacher's competencies that should meet and even exceed divergent needs of the university youth fostering them to imply their background knowledge and skills in a beneficial way.

*The authors of the research paper put forward a hypothesis* that natural bilingual or multilingual teachers are far more prone to demonstrate cross-cultural flexibility in a classroom in comparison to artificial bilingual or multilingual ones, as these teachers are highly disposed to demonstrate shiftability, adaptability, responsiveness and sensitivity within the interaction framework implying cultural and linguistic diversity of the students.

***Participants.*** The research involved two clusters of the participants. The firs cluster was represented by the students (210 students in general: 105 first year students and 105 third year students at C1 English level at Plekhanov Russian University of Economics). The second cluster was represented by the teaching staff (50 teachers) of Chair of Foreign Languages #2 and Chair of Foreign Languages #3 at Plekhanov Russian University of Economics.

The students' cluster outline: 106 students recognized themselves as being artificial bilinguals (with consecutive acquisition of a foreign language), 66 students recognized themselves as being natural bilinguals but artificial multilinguals (with simultaneous acquisition of first two languages and consecutive acquisition of a foreign language), and 38 students recognized themselves as being natural multilinguals (with simultaneous acquisition of first three languages and consecutive acquisition of a foreign language).

The teachers' cluster outline: 25 teachers identified themselves as being artificial bilinguals or multilinguals (with consecutive acquisition of a foreign language), 15 teachers identified themselves as being natural bilinguals but artificial multilinguals (with simultaneous acquisition of first two languages and consecutive acquisition of a foreign language), and 10 teachers identified themselves as being natural multilinguals (with simultaneous acquisition of first three languages and consecutive acquisition of a foreign language).

The participants were thoroughly informed about the purpose of the research and voluntarily took part in it.

***Methods.*** To achieve the aim of the study, the researchers' team used a fusion of methods:

1) theoretical analysis to back up practical findings;
2) monitoring of the courses attendance to check a level of students' engagement;
3) word association test to track a difference between various patterns of teachers' cross-cultural flexibility;
4) elaboration of a new selection procedure stages.

***Procedure.*** The research incorporates three stages: preliminary stage, observation stage, and assessment and evaluative stage. At the preliminary stage the research team was reflecting on the composition of the study participants, its methods and subsequent stages.

The observation stage lasted from November 1, 2017 to November 1, 2018. During this pivotal stage the researchers' role was to offer the students to attend five extracurricular courses in English. The courses structure was compiled in the way to interlace meta-subject areas to boost students' soft skills and their involvement into the process.

Five courses were conducted by 25 teachers (5 teachers for each course), who are artificial bilinguals or multilinguals. The same five courses were conducted by the 25 teachers (5 teachers for each course), who are natural bilinguals or artificial multilinguals. Each course lasted 2 months and they were centered around extensive issues:

*Course 1: Working Abroad: Challenges and Benefits*
*Course 2: Multicultural Business Environment*
*Course 3: International Businesses: Advantages and Disadvantages*
*Course 4: Multilinguism as a Must for Doing Business*
*Course 5: Shifts in Business Vocabulary*

A research participant had to visit all the five courses having an option to move after a course completion from the cluster of teachers who are artificial bilinguals or multilinguals to the cluster of teachers who are natural bilinguals or multilinguals. Assessment and evaluative stage coincided with the last month of the observation stage and focused on the causal study in attempts to prove a cause-and-effect relationship of the initial hypothesis and empirical results.

## Results and Discussion

The nature of cross-cultural flexibility prescribes certain educational principles to be followed in order to successfully handle a cross-cultural classroom.

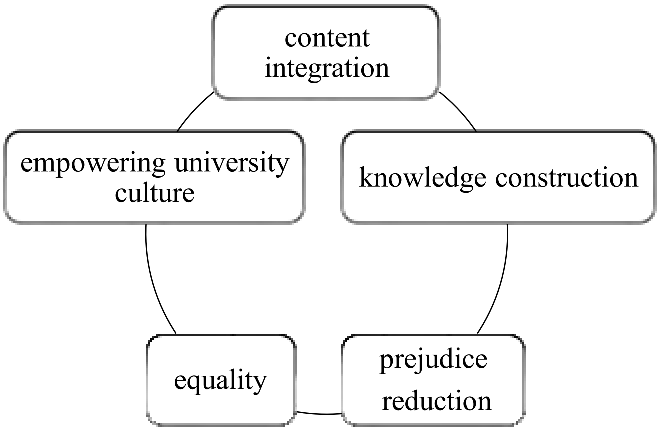


Figure 3. Core educational principles as the basis of cross-cultural flexibility.

These principles can be characterized in the following way (Figure 3):

- content integration suggests culturally relevant information and patterns conveyance and transmission;
- knowledge construction implies learning material cast and delivery avoiding any personal biases and judgements;

- prejudice reduction involves instilling tolerance for cultural diversity;
- equality embraces equal opportunities for everyone disregarding their race, ethnicity, culture and language;
- empowering university culture implicates full compliance with the guidelines of equality and diversity (Banks, Banks, 2004; Banks et al., 2001; Key, 1996).

Undoubtedly, cross-cultural flexibility is a kind of ability enabling a teacher to absorb new cultural contexts which are alien to their mindset, to adjust their own teaching methods, techniques to the given cross-cultural environment. To manage to create an atmosphere in which students with various cultural background could feel secured once their differences are accepted or even shared it is vital to veer off the beaten track and bring new educational patterns into cross-cultural classroom. Traditional educators operate within the boundaries of one culture mentality which heavily impacts the system of beliefs, values and frame of reference. However, cross-cultural community requires rethinking of the existing educational paradigm and introducing the one better tailored to the culturally diverse student cohorts.

To effectively manage cross-cultural classroom, it is essential to identify major differences between traditional classroom and cross-cultural one. Here are the main seven parameters which seem to be critical for learning process guidance (Table 1).

Table 1

**Traditional classroom versus cross-cultural one**

| Parameters | Traditional | Cross-cultural |
|---|---|---|
| Culture involvement magnitude | Low | High |
| Competition | Individual | Inter-group |
| Class climate | Controlled | Collaborative |
| Teacher's engagement degree in the educational process | High | Low |
| Teacher's role | Teacher tells | Teacher guides |
| Learning material differentiation | Age and ability customized | Age/ability and culture customized |
| Study mode | Individual | Group |

These beneficial peculiarities of a cross-cultural classroom are profoundly underpinned by an analysis of the courses attendees' distribution (Figure 4). If at the very beginning of the courses they were equally subdivided into two pools (105 and 105 correspondingly), then immediately after the first course completion there is a hard evidence towards interaction within the cluster guided by natural bilingual and multilingual teachers.

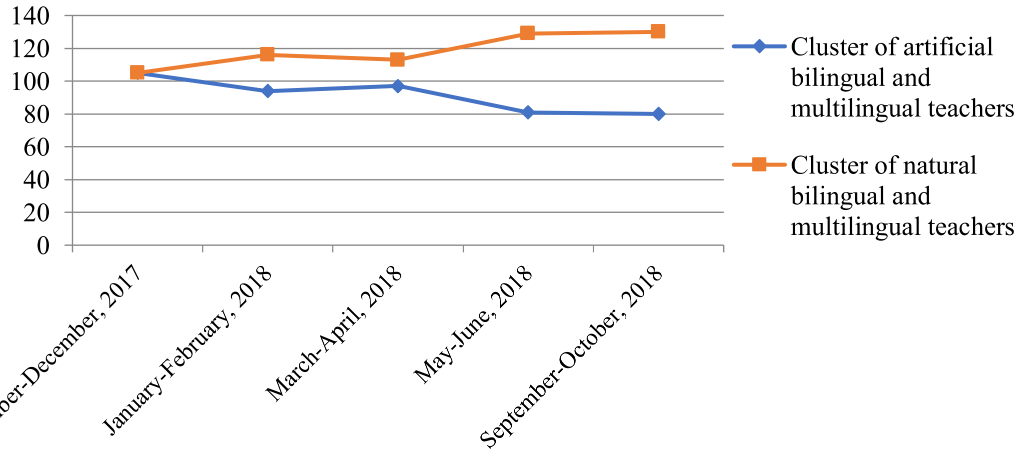


Figure 4. A Distribution of the Courses Attendees.

Such an evident preference might be explained by a teacher's ability to orientate in a new cultural environment, to facilitate a teacher-student or student-student communication by easily adapting to a different culture; diversification of values, beliefs, norms and standards which is a strategy applied by a teacher to selectively use those values, beliefs, norms and standards which are appropriate for the given communicative situation. Reflecting on the results of the association word test on cross-cultural flexibility of the teaching staff it is feasible to obtain an abundant proof of the researchers' hypothesis which implies in the fact that natural bilingual or multilingual teachers are far more prone to demonstrate cross-cultural flexibility in a classroom in comparison to artificial bilingual or multilingual ones.

Sufficiency pattern (Figure 5) clearly demonstrates that the core elements of the concept signal about teacher proficiency in "bridging languages" while making implications in case of being asked to exemplify some phenomena in different languages, ability to demonstrate divergent and creative thinking via sensitively cultured techniques and methods, running classes in the conditions of cross-cultural communication environment effectively. Insufficiency Pattern (Figure 6) displays a shift of the core elements to peripheral ones which means that either the teacher's assignments didn't appropriately meet challenging students' expectations or the teacher was not quite good at selecting and adapting resources in a learning process, mismanaging to master lesson content in accordance with students' expectations.

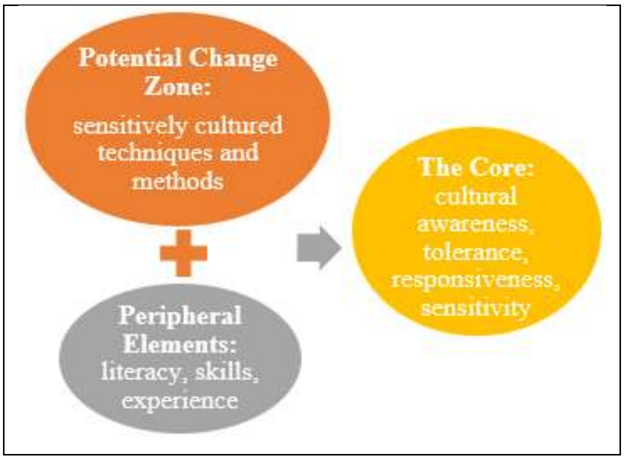


Figure 5. The elements forming the core and the periphery of associations about cross-cultural flexibility of a teacher (Sufficiency Pattern).

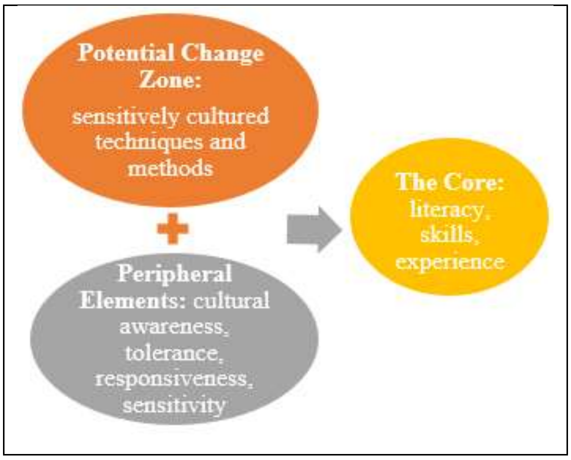


Figure 6. The elements forming the core and the periphery of associations about cross-cultural flexibility of a teacher (Insufficiency Pattern).

Throughout the observation stage of the study the researchers had been elaborating a new proposal of a selection procedure for the applicants on the teaching positions (foreign languages) at Plekhanov Russian University of Economics which resulted in its final form at the assessment and evaluative stage of the study and has been successfully implemented so far (Figure 7). This proposal comprises a sequence of obligatory stages and exposes a preference towards natural bilingual or multilingual teachers with convincing degree of cross-cultural flexibility.

**HEADHUNTING**
Teaching staff
↓
**SELECTION**
Assessment → Contract
↓
**IDENTIFICATION OF CROSS CULTURAL BENEFITS**
Teaching staff
↓
**ADVANTAGEOUS USE OF THE TEACHERS CROSS CULTURAL BENEFITS**
Students
↓
**OUTCOME MONITORING**
The head of the Chair

Figure 7. Selection Procedure for the Applicants.

## Conclusions

In the article the authors considered some issues related to cross-cultural education specifically teachers' profile in terms of intrinsic characteristics which contribute to effective cross-cultural classroom management.

Modern educational domain necessitates an educational paradigm shift which will be sensitive to cultural issues and challenges imposed by the present-day realia. Evidently, the role of a teacher can hardly be overestimated as a teacher is to demonstrate abilities to organize the learning process providing fair educational opportunities for all students disregarding their race, ethnic affiliation, culture and language. This means not to be merely blind to cultural differences but to foster tolerance and resilience with high cross-cultural involvement magnitude among all participants of the educational process. Thus, classroom environment becomes more tolerant and collaborative phasing out individual competition replacing it by inter-group one. There is also a focus shift from individual study mode to group one providing culturally relevant learning material.

Cross-cultural classrooms for now have only highly contributing benefits that effectively lower uncertainty avoidance - the degree of desire to avoid situations that may create a perceived threat for reasons of uncertainty or ambiguity; and increase intra-group collectivism - the degree of individual loyalty to small, including informal, groups. Such classrooms and type of interaction facilitate success of the group in generating new ideas, promote clarity of empowering tasks in the framework of the project implementation, sustain timeliness of tasks implementation in the course of the project, and enhance quality analysis of the information used.

Undeniably, an agent's (teacher's) implication shrinks to being supportive bringing to the front the importance of cross-cultural competence which creates additional benefits for teachers in terms of employability. A new proposal of a selection procedure for the applicants on the teaching positions (foreign languages) at Plekhanov Russian University of Economics has been devised. It incorporates a set of compulsory stages and proves validity of the authors' hypothesis regarding a certain preference towards natural bilingual or multilingual teachers with far more credible degree of cross-cultural flexibility in the classroom.

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# Marketing in Higher Education in the Agenda of Increasing International Enrolment

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**Abstract**: Today, there is a growing need to develop and use new effective marketing strategies in the higher education in the agenda of recruiting diverse student population and attracting best talents at domestic and international level. This is closely associated with building a reputable university brand. Modern higher education institutions have to commit more attention, time and resources to support marketing efforts aimed at establishing, maintaining and enhancing relationships with prospective students. In Latvia, recruitment strategies of universities increasingly address international students, as Latvian universities are now competing for them in the global education market. The competition for overseas students is growing worldwide. In some countries (and Latvia is not an exception), sustained growth in international student recruitment is vital for compensating for a decline in the number of domestic students. The aim of the paper is to investigate the main factors that overseas students consider important when choosing Latvia as a study destination. The paper is based on 1) the analysis of research papers and documents on marketing in higher education; 2) a survey conducted in two higher education institutions of Latvia – Riga Technical University (RTU) and Transport and Telecommunication Institute (TSI). The results of the study show that understanding the needs of potential overseas students is vital for education managers responsible for their recruitment, as Latvian universities are now competing for international students in the global education market.

**Keywords**: university brand, overseas students, marketing strategy, student recruitment.

## Introduction

According to M. Vaira (2004), modern higher education institutions are "socially, politically and economically" responsible for both their "products" and processes, taking into account the economy and labour market dynamics and needs. Today, provision of highly skilful labour force for the international market, as well as adaptation of the best international standards and expertise, can be done only in the context of modernization of higher education and its integration in the "global educational space" (Zhanguzhinova et al., 2018).

Contemporary universities are involved in various transformations including the creation of knowledge economy nodes and original new businesses, broadening into technologically-related businesses, etc.; the demands imposed on a modern university also lay serious demands on institutional management (Universities and innovation, 2006). The quest of quality, access and prestige is somewhat imbedded in institutional policies (Fairweather, Blalock, 2015). Such concerns as "managing brand image" and "collecting market intelligence" have become common practice for higher education institutions (Moogan, 2011).

University management has to develop effective marketing strategies, which are necessary to build a reputable university brand based on high quality of educational services delivered by faculty members. Marketing programmes are designed so that they will help a) increase awareness of the quality, scope and impact of research and education; b) accomplish the university's overall target enrolment for a diverse and talented student population in the extremely competitive modern environment.

The competition for overseas students is growing worldwide, as sustained increase in international student recruitment is crucial for compensating for a drop in the number of domestic students in different countries. In Latvia, recruitment strategies of universities increasingly address international students, as Latvian universities are now competing for them in the global education market. Though the total number of foreign students in Latvia is not large, it is increasing every year; Latvia has signed agreements with some countries aimed at strengthening cooperation in the educational area; Latvian higher education institutions (HEIs) also have bilateral cooperation agreements with HEIs abroad (Berzina, 2012).

Understanding the needs of potential students is vital for education managers responsible for their recruitment. The aim of the paper is to investigate the main factors that overseas students consider important when choosing Latvia as a study destination.

## Methodology

The aim of the paper is to investigate the main factors that overseas students consider important when choosing Latvia as a study destination. The paper is based on 1) the analysis of research papers and documents on marketing in higher education; 2) a survey conducted in two higher education institutions of Latvia – Riga Technical University (RTU) and Transport and Telecommunication Institute (TSI). The research population involves 105 students of the following programmes: Transport and Logistics, Economics and Management and Engineering. An original questionnaire was developed by the authors taking into account the results of the research performed by J. Cubillo (Cubillo, Sanchez, Cervino, 2006), as well as the authors' experience. The questionnaire was designed around the factors that, to some extent, would contribute to the student decision-making process about studying abroad: choice of a study programme, country's image, university's image, advice from family members and friends, some marketing issues and problems related to the recruitment process, etc. The questionnaire includes nine multiple-choice questions. The obtained data were then processed using SPSS software package.

## Results and Discussion

### 1. Literature review

Today, the process of internationalization of higher education is accelerating, which is associated with increased cross-border education and intensified student mobility (OECD, 2009). In this context, the so-called "export philosophy" in this area is being materialised through the growth of "a business-oriented transnational higher education" (Asaad et al., 2013). When universities offer qualifications that meet student needs and expectations, they provide the data necessary for students to make informed decisions about their choices; the tools involved in the process are basic elements of the marketing strategy used by higher education institutions to increase enrolment (Ivy, 2008).

As said by J. Cubillo (Cubillo, Sanchez, Cervino, 2006), it is vital for marketers to know the factors that have impact on the intention of prospective students and to understand the nature of the relationship among the factors. Nowadays, there is a necessity to create and apply novel full-fledged marketing strategies in the higher education area aimed at recruiting diverse student population and increasing student enrolment at both national and international level. This is closely associated with the need to improve quality and innovation in the context of preparing graduates for the modern labour market (Europe 2020, 2010), as quality higher education is key to creating the European Higher Education Area (Bologna Declaration, 1999; Berlin Communique, 2003; The Role of…, 2003; London Communique, 2007; The European Higher…, 2012, Report to the European Commission…, 2013; Standards and Guidelines…, 2015). There is growing need to improve quality, effectiveness and responsiveness in all the strategic higher education activities including education and research (Vaira, 2004). According to the Hanover Research Report, a few noteworthy trends are now dominating within the higher education marketing, which are associated with increasing student recruitment and enrolment in the agenda of creating and implementing effective marketing strategies (Hanover research, 2014):

- more attention is paid to branding and marketing functions;
- the most effective marketing strategies for universities are event-based;
- recruitment strategies focus on international students;
- novel methods of online and technology-based course delivery are used.

Today, the labour markets requirements, educational environment, students' demands, and the university's reputation are the prominent factors amongst others that influence a strategy of teaching improvement in the context of quality enhancement (Henard, Roseveare, 2012). As the rise of the "export philosophy" in higher education area has "materialised through the expansion of a business-oriented transnational higher education" (Asaad et al., 2013), marketers should devote more attention, time and resources to supporting marketing efforts for establishing, maintaining and enhancing relationships with potential overseas students. Effective export market research analysis and subsequent planning necessitates relevant information generation and dissemination within the HEI (Asaad et al., 2013). In this context, universities pay increasing attention to the opinions of foreign students for obtaining their feedback on their learning experience, and discovering their reasons for selecting a particular university (study programme).

**2. Analysis of the empirical study results**

The research findings are presented in Table 1, Table 2 and Table 3.

Table 1

**The research findings: Questions 1-3**

| Answer | Engineering % | Management/ Economics % | Transport and Logistics % | Grand Total % |
|---|---|---|---|---|
| **Question 1: Why were you interested in this particular programme?** | | | | |
| for career advancement | 32,43 | 56,41 | 34,48 | 41,90 |
| for personal growth | 35,14 | 17,95 | 13,79 | 22,86 |
| this specialty is demanded in the global labour market | 13,51 | 20,51 | 48,28 | 25,71 |
| this specialty is demanded in the local labour market | 18,92 | 5,13 | 3,45 | 9,52 |
| **Question 2: Why did you choose to study in Latvia?** | | | | |
| good career prospects | 10,81 | 23,08 | 34,48 | 21,90 |
| good reputation of Latvian education system | 35,14 | 28,21 | 13,79 | 26,67 |
| low tuition fee | 21,62 | 28,21 | 24,14 | 24,76 |
| relatives/friends are studying/living in Latvia | 18,92 | 5,13 | 13,79 | 12,38 |
| **Question 3: Why did you choose this University? What makes it distinctive?** | | | | |
| it has partnership with HEIs in my country | 21,62 | 2,56 | 10,34 | 11,43 |
| it is a well-known brand | 2,70 | 17,95 | 0,00 | 7,62 |
| it provides a specific programme that meets my requirements | 48,65 | 43,59 | 72,41 | 53,33 |
| its international ranking is high | 21,62 | 17,95 | 13,79 | 18,10 |
| friends/relatives are studying here | 5,41 | 15,38 | 3,45 | 8,57 |
| relatives/friends are studying/living in Latvia | 0,00 | 2,56 | 0,00 | 0,95 |

As seen from the Table 1, the most popular answer given by students was that they chose this particular programme because it was important for their career advancement – totally 41,9 % of students chose this option. Especially the students of Management and Economics study programme evaluated the significance of career advancement very high – 56,41 %. Whereas the students of Transport and Logistics (34,48 %) and Engineering (32,43 %) evaluated this aspect as less important. It is interesting that many students of Engineering programme chose their study programme because it was important for their personal growth – 35,14 %. For other specialty student's personal growth was not so significant. Moreover, most of the students of the Transport and Logistics pointed out that it was necessary for their specialty to be demanded in the international labour market – 48,28 %. Whereas the importance of the necessity of their specialty to be demanded in the labour market of students' native country was confirmed only by a small number of the Engineering specialty students – 18,92 %. The data prove that students are concerned about their career advancement. The possibility to grow both professionally and personally modern students see more in the global labour market.

The most popular answer given by students why they chose studies in Latvia was because of a good reputation of Latvian education system – the total number of students given a positive answer was

26,67 %. A high number of students of the Engineering programme and Management/Economics programme answered positively – 35,14 % and 28,21 %. Another popular answer given by students was a low tuition fee. The total number of students who gave this answer was 24,76 %. Much less popular were options: my relatives or friends are studying/living in Latvia (totally 12,38 %) and a safe environment (14,29 %). The data prove that the most popular reasons why foreign students choose studies in Latvia are a good quality of Latvian education and also a comparatively low tuition fee.

Another question asked to the students was why they chose that particular University and what made it distinctive. The most popular answer given by students was that they chose that university because it provided a specific programme that met students' requirements. The total number of students chosen this option was 53,33 %. The students of Transport and Logistics chose this answer most often – 72, 41 %, the number of students from the Programme of Engineering and Management/Economics was a little smaller – 48,65 % and 43,59 %. The high international ranking and the partnership of that particular university with some university (universities) in students' native country was not so popular – totally 18,10 % and 11,43 % of students. The data prove that foreign students are very concerned about the growth of their professional career. And they choose Latvian universities because they have a capacity to provide their students with a programme, which correspond to students' needs and expectations.

Table 2

**The research findings: Questions 4-6**

| Answer | Engineering % | Management/ Economics % | Transport and Logistics % | Grand Total % |
|---|---|---|---|---|
| **Question 4: What did you expect before you began your studies?** | | | | |
| gaining intercultural experience | 2,70 | 17,95 | 17,24 | 12,38 |
| high quality of education | 45,95 | 23,08 | 24,14 | 31,43 |
| international academic experience of university | 21,62 | 35,90 | 27,59 | 28,57 |
| qualified teachers | 24,32 | 5,13 | 10,34 | 13,33 |
| safe educational environment | 5,41 | 17,95 | 20,69 | 14,29 |
| **Question 5: What kind of recruitment options did you use?** | | | | |
| directly through the University Admissions Centre | 27,03 | 10,26 | 13,79 | 17,14 |
| marketing events | 5,41 | 2,56 | 3,45 | 3,81 |
| via a student recruitment agency in Latvia | 10,81 | 0,00 | 3,45 | 4,76 |
| via a student recruitment agency in my country | 51,35 | 71,79 | 72,41 | 64,76 |
| via international student recruitment agencies | 5,41 | 15,38 | 6,90 | 9,52 |
| **Question 6: What marketing tools used by the University (agency) have influenced your choice?** | | | | |
| Outdoor | 24,32 | 5,13 | 17,24 | 15,24 |
| Print (newspaper/magazine) | 2,70 | 7,69 | 6,90 | 5,71 |
| Social media | 18,92 | 20,51 | 34,48 | 23,81 |
| Web-based tools | 54,05 | 66,67 | 41,38 | 55,24 |

As seen from Table 2, the most of students emphasised that they expected a high quality of education – totally 31,43 %. This answer was the most popular among the students of the Engineering programme (45,95 %). Another expectation of students was an international academic experience of university – totally 28,57 %. Among the students of Management and Economics programme this answer was most popular – 35,90 %. The data also show that it was important for the students of the Engineering programme to be taught by qualified teachers – 24,32 %. Consequently, the data prove that foreign students expect a high quality of education and choose Latvian universities as they have international academic experience and can provide with the education corresponding to their requirements.

The data also gave the information about the most popular recruitment strategies used by students. The most popular strategy chosen by students was via student recruitment agency in their country – totally 64,76 %. Students of Management/Economics and Transport and Logistics programmes evaluated this strategy at the highest level – 71,79 % and 72,41 %. Students were also asked to express their point of view about the marketing tools used by the University (agency) which influenced their choice. The most of students agreed that the most effective marketing tool was web-based tool (totally 55,24 %). Social media was another marketing tool most often chosen by students (totally 23,81 %). The data prove that the universities have to go along with advanced technologies and use the marketing tools which may ensure the access to the information in the most attractive and informative way.

Table 3

**The research findings: Questions 7-9**

| Answer | Engineering % | Management/ Economics % | Transport and Logistics % | Grand Total % |
|---|---|---|---|---|
| **Question 7: What mode of communication with the university did you use?** | | | | |
| Email communication | 45,95 | 48,72 | 51,72 | 48,57 |
| face to face (direct) contacts with local students | 0,00 | 0,00 | 6,90 | 1,90 |
| face to face (direct) contacts with the academic staff | 24,32 | 12,82 | 6,90 | 15,24 |
| Recruiting page on the website | 0,00 | 5,13 | 3,45 | 2,86 |
| Skype | 29,73 | 33,33 | 31,03 | 31,43 |
| **Question 8: In your opinion, what recruitment strategies can be used by the university for increasing student recruitment in the future?** | | | | |
| building a stronger brand image | 10,81 | 2,56 | 10,34 | 7,62 |
| developing and sustaining a portfolio of programmes responsive to market demands | 32,43 | 20,51 | 34,48 | 28,57 |
| offering special tuitition fees/scholarships | 37,84 | 48,72 | 31,03 | 40,00 |
| providing a sequential flow of communication with prospective students | 13,51 | 20,51 | 24,14 | 19,05 |
| using social media campaigns | 5,41 | 7,69 | 0,00 | 4,76 |
| **Question 9: What were the main problems you encountered in the admission process?** | | | | |
| poor communication | 35,14 | 41,03 | 24,14 | 34,29 |
| technical problems | 35,14 | 41,03 | 51,72 | 41,90 |
| unfriendly environment | 0,00 | 0,00 | 3,45 | 0,95 |
| unsupportive workers | 13,51 | 2,56 | 10,34 | 8,57 |
| visa problems | 16,22 | 15,38 | 10,34 | 14,29 |

As seen from Table 3, the most popular mode of communication was e-mail communication (totally 48,57 %) and Skype (totally 31,43 %). This could be explained with the accessibility and approachability of these tools. They are the most popular modes of communication in almost all spheres nowadays.

The researchers also wanted to find out the students' recommendations on the recruitment strategies used by the University for increasing student recruitment in the future. The most widespread recommendation for the Universities given by foreign students was to offer special tuition fees and scholarships (totally 40 %). Another popular recommendation for the universities was to develop and sustain a portfolio of programmes responsive to current and future market demands (totally 28, 57 %). The data prove that special tuition fees are still one of the main attractive targets why foreign students choose studying in Latvian universities. Moreover, they are expecting to acquire a specialty which is demanded in the international labour market.

To improve students' admission, process the researchers also asked students to point out what kind of problems they encountered in that process. The most popular problem was technical problems (problems with equipment) (totally 41,90 %) which means that universities have to invest on their technical resources. Another problem was more important – poor communication stated by 34,29 % of the total number of students. The data prove that universities still have to improve their communication and cooperation process with foreign students to succeed in their recruitment. The third problem stated by students was visa problems (totally 14,29 %) which also reveals the reasons why foreign student's admission process does not always meet their expectations.

## Conclusions

The analysis performed in the paper has allowed the authors to make the following conclusions.

- With the new challenges offered by globalization foreign students are concerned about their career advancement and have a tendency to see their professional career development in the international labour market.
- The most popular reasons why foreign students choose studies in Latvia are a good quality of Latvian education, a capacity of universities to provide students with a programme corresponding to their needs, international academic experience of universities, and a comparatively low tuition fee. Latvian education may become as one of the main export values of our country.
- Communication and cooperation with foreign universities is the most effective tool of Latvian universities to ensure a steady and growing flow of incoming students. Therefore, the universities have to use advanced technologies and such marketing tools which may ensure the access to the information in the most attractive and informative way. Web-based tools are the most popular modes of communication of universities.
- Universities still have to improve their communication and cooperation process with foreign students to succeed in their recruitment. Visa issues are also one of the problems in the admission process of foreign students.

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# Reasoning the Implementation of Massive Open Online Courses in Higher Education Institutions

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**Abstract:** First Massive Open Online Course (MOOC) was provided in 2013 by Kaunas University of Technology, since then few more institutions joined this initiative. The interest in MOOCs have been growing among Lithuanian higher education institutions, however the number of new MOOCs are not growing significantly. New initiatives are influenced by various factors, however it is important to examine the most relevant factors influencing decision to develop and provide MOOCs in order to develop measures for encouraging innovative learning methods in Lithuanian higher education. The aim of this article is to identify the main objectives that are important for higher education institutions (HEIs) when deciding to implement MOOCs in the institution. Authors of the article conducted the survey with representatives from 17 Lithuanian higher education (HE) institutions. The study shows that the most important objective of MOOCs implementation for Lithuanian HEIs is flexible learning opportunities. Results also represent that far Lithuanian HEIs do not acknowledge MOOCs as business opportunity, for them MOOCs are the innovation area and the opportunity to fulfil demands of wider range of learners.

**Keywords:** Massive Open Online Courses, distance education, Lithuanian HEIs, higher education.

## Introduction

Massive Open Online Courses (MOOCs) have been there for a while. MOOCs have changed and evolved a lot, course providers experiment and innovate in this area up to now. MOOCs at the beginning were seen as the great marketing opportunity for higher education institutions even though flexibility and opening up education for everyone were also considered as the key factors of MOOCs. When MOOCs became more popular in the Europe, 2nd wave began, they were considered to be an opportunity for life-long learning by reducing skill gaps in the key industries. New (3rd) wave of MOOCs is emerging right now, higher education institutions are striving for recognition for the credits and creating new business models. MOOCs are still being provided for free, however some additional features such as certificates can be offered for a fee (Brown, 2018). Nevertheless, despite the different variations of MOOCs, they all have common elements (Patru, Balaji, 2016):

- *massiveness* - the courses are designed in the way that allow to provide courses for unlimited number of learners;
- *openness* - courses are free of charge;
- *online* - course are being provided through the internet.

Course. Learners are provided with well-balanced learning experience which include all necessary elements for knowledge and skill development in the certain area.

MOOCs are becoming more varied, because they are being developed as education opportunities for a wide range of people, from disadvantaged social groups to whom education is less accessible to employed professionals, who seek for vocational training or further development opportunities (Read, Barcena, Sedano, 2018). While MOOCs evolve and offer more features and possibilities for learners, in Lithuania it is possible to detect only few institutions that are providing MOOCs and are fond of openness and accessibility of education for everyone that they provide. First MOOC in Lithuania was offered in September, 2014 it was designed by lecturers of Kaunas University of Technology and gathered 2009 participants in total. The course was evaluated very positively, learning objects of this MOOC were anticipated to be interactive and engaging (Gudoniene, Rutkauskiene, 2015). Afterwards few other initiatives emerged, however in Lithuania MOOCs are not that widely spread as in other parts of Europe. Kaunas University of Technology still remains the leader in the provision of MOOCs in Lithuania. Other Lithuanian higher education institutions are interested in development of MOOCs, however it is not being taken to actions due to challenges of providing MOOCs with no experience, this creates lack of technical and pedagogical support for this kind of initiatives, preparedness of teachers to manage them also, the traditional learning attitude is very sturdy in Lithuanian educational system this makes it even more difficult to present new approach of learning. On the other hand, a lot of students express high levels of ICT competences and frequently use ICT as permanent measures for learning (Vronska, 2016). This means that if higher education institutions want to attract students and retain them, they have to adapt teaching methods to those that are used by their students, like various ICT measures. Therefore, the aim of this article is to identify the main objectives that are important for higher education institutions (HEIs) when deciding to implement MOOCs in the institution.

**Reasons of HEIs to implement MOOCs**

MOOCs are considered to bring significant amount of innovation to the education, even though before MOOCs other forms of online distance learning have already excited, MOOCs brought together features that were not combined before. The research published by O. Pilli, W. Admiraal, A. Salli investigates the factors that determine if MOOCs are worth to be invested or not by higher education institutions (Pilli, Admiraal, Salli, 2018). As one of the strengths of MOOCs, accessibility for large number of learners who have the access to the internet and life-long learning that MOOCs promote by providing more learning opportunities with less time constrains and adapting to various learning styles are being distinguished. Other strengths of MOOCs are - online learning communities where learners are able to connect with each other and share their experiences, backgrounds, experimentation opportunities that are provided by the ability to collect data from learners much more easily than in the traditional learning. MOOCs are also used for brand extension purposes by signalling innovation and providing courses to more diverse audience of learners (Pilli, Admiraal, Salli, 2018). P. Belleflamme and J. Jacqmin (2015) supplement this approach by distinguishing three additional benefits of MOOCs for learners. MOOCs enable retrieval-based learning, because they use tests that are automatically graded, provide instant feedback and ability to asses one’s knowledge and most importantly this constant testing helps improving long term memory of the students. This type of learning provides more learner-centred environment, because it is easier to provide more adapted content and assignments according to the knowledge level of each of the learner and most importantly, to allow him to study in his own pace. Lastly, MOOCs provide a wide range of data about the learners for the course provider, he can gather data by changing learning conditions, mixing groups and this helps to make conclusions about the improvement of MOOCs platforms.

As every form of education, MOOCs have their weaknesses that also should be taken into consideration by higher education institutions. Weaknesses such as high dropout rate that are due to the necessary learners’ high self-motivation and responsibility for learning process, infrastructure of MOOCs can be expensive if institution do not own a platform for MOOC and has no experience in designing them. Pedagogical aspects determine that MOOCs yet are not able to develop high level of academic learning. Also, MOOCs are more orientated towards providing courses, but not to the learning process itself. Also, the assessment still can be too superficial, it faces the problem of plagiarism that interfere with recognition of MOOC credits (Bates, 2015). MOOCs are striving to be open and massive that brings unique challenges in the learning process. Since educators sometimes rely on the same design methodologies as for their F2F or online courses that lack massiveness or openness while designing MOOCs, they do not meet the needs of very large population of learners with different learning experiences and backgrounds, different languages and cultures (Bali, 2014).

After considering the pros and cons of MOOCs, higher education institutions have to decide which strategies for delivering them are the most relevant for their institution. It should be considered if institution will be able to support MOOC by themselves or choose to provide it on external platform. The development strategies of new teaching approaches implementation in educational community should be anticipated. Novelties sometimes can be met as the threats, because they require time, technological investments and development of new skills. Further, overall university strategy has to be adapted according to the new teaching approaches and research, training opportunities should be encouraged (Belleflamme, Jacqmin, 2015).

Lithuanian higher education institutions are guided by national strategy. Progress report “Lietuva 2030” is one of the most important documents of education objectives in Lithuania (Lithuania’s progress strategy…, 2018). It defines the important factors of education that are: the quality of curriculum and how it is provided, learning tools and environment, teaching staff - their demographic characteristics, education, inclusion – the availability of education, adaptability to different learning needs, education culture – uniform direction of development, independency of education institutions, monitoring and analysis of the activity. Lithuanian HEIs are constantly pushed to review their standards, update learning environment. Whereas in Lithuania the number of new students is decreasing every year and the financing of HEIs directly depends on the quantity of students, therefore they have to adapt their strategy and find new sources for income, search for new learners consequently, distance implementation of education becomes more accurate.

## Methodology

The study is based on previously conducted reports on MOOCs in European level in the year 2014 (Jansen and Schuwer, 2015) and 2015 (Jansen, Goes-Daniels, 2016). Authors of the article used the questions from previously mentioned reports and designed a semi-closed questionnaire suitable for Lithuanian sample. 17 Lithuanian higher education institutions were surveyed. Each of the responding institutions were asked to choose one representative, an expert who is working in the institution and would be able to represent it and answer the given questions. Representatives were chosen according to their acquaintance to institutions' policy, MOOCs design and delivery. This survey was performed three times with the same respondents in 2015, 2016 and 2018. In this article the results form 2018 are compared to the results from 2016 and 2015.

## Results and Discussion

The main goal of the survey was to examine the main objectives that are important for Lithuanian HEIs when deciding to implement MOOCs in the institution. Figure 1 represents current situation of MOOCs offerings in Lithuania.

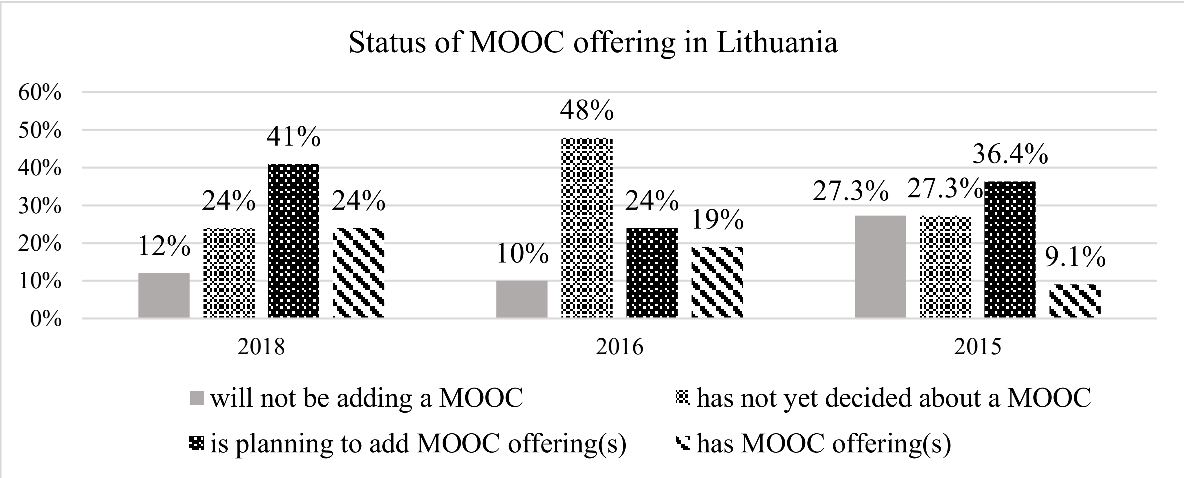


Figure 1. Alteration of Lithuanian HE institutions MOOCs offering profile.

Recent results indicate that the percentage of institutions offering MOOCs have increased from 9,1% (in 2015) to 10% (in 2016) and have reached 24% in 2018. Intention to add MOOC offerings to an educational process considerably varied since 2015 years from 36,4% dropped to 24% in 2016 and recently the percentage of institutions planning to add MOOCs to their curricula have increased to 41% (in 2018). In 2018 24% of respondents were uncertain if they are going to add MOOCs to their offerings and 12% expressed that they are not going to add MOOCs in the future. Survey of the year 2018 displayed that currently 2 institutions have offered 5 MOOCs since 2012 until now, 1 institution offered – 2 MOOCs and 2 other institutions have offered 1 MOOC. In total, number of offered MOOCs in Lithuania have increased from 2016 year. This shows that institutions are creating new courses and also are willing to add them to the study programs. One institution (10%), which already use MOOCs is collaborating on a MOOC platform in its region/country. Two other institutions (20%) have developed their own dedicated institutional MOOC platform and remaining seven institutions (70%) that already have adapted MOOCs are using existing software for their institutional MOOC platform (e.g., Moodle, OpenedX, etc).

Figure 2 represents the answers to the question *how well MOOCs meet institutional objectives*. The majority (41%) of respondents replied that it is too early to tell (in 2018), however this answer remained the most popular since 2015 (45,5%). It is worth mentioning that results in 2018, 2016 and 2015 remained similar, the answers are consistent. 41% replied that MOOCs meet some or all/most of the institution's objectives and 18% agreed that MOOCs meet very few institution's goals.

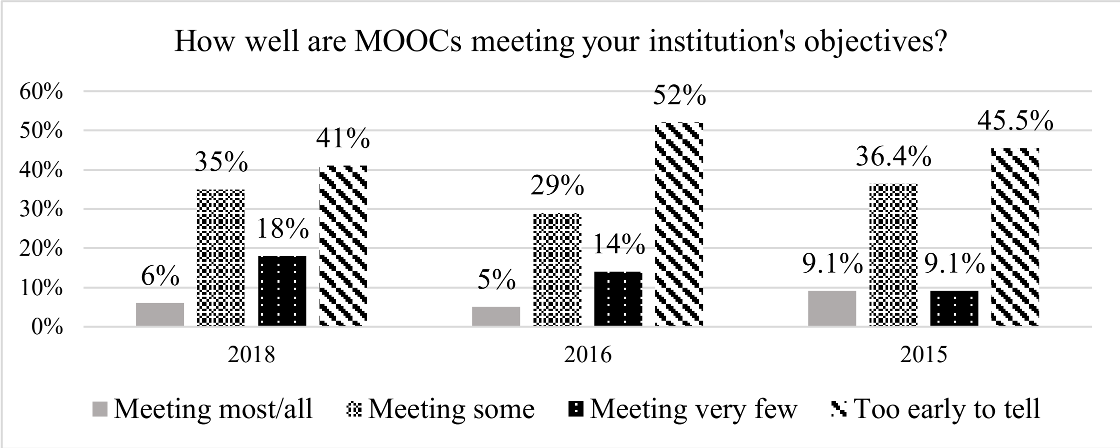


Figure 2. MOOCs compliance with institution's goals.

Primary objectives of MOOCs of Lithuanian HEIs offering were mentioned as flexible learning opportunities (29%), innovative pedagogy (24%), increased institutions visibility (18%) and reach of new students (18%) (see figure 3). Compared to the previous studies it is obvious that results are corresponding to 2016 where the most important primary goals were also mentioned as flexible learning opportunities (33%), increase institution's visibility (24%), innovative pedagogy (24%) and reaching new students (14%). More noticeable distinction in opinion is in the 2015 there the most important primary objective was named as the increase in institution visibility (73%).

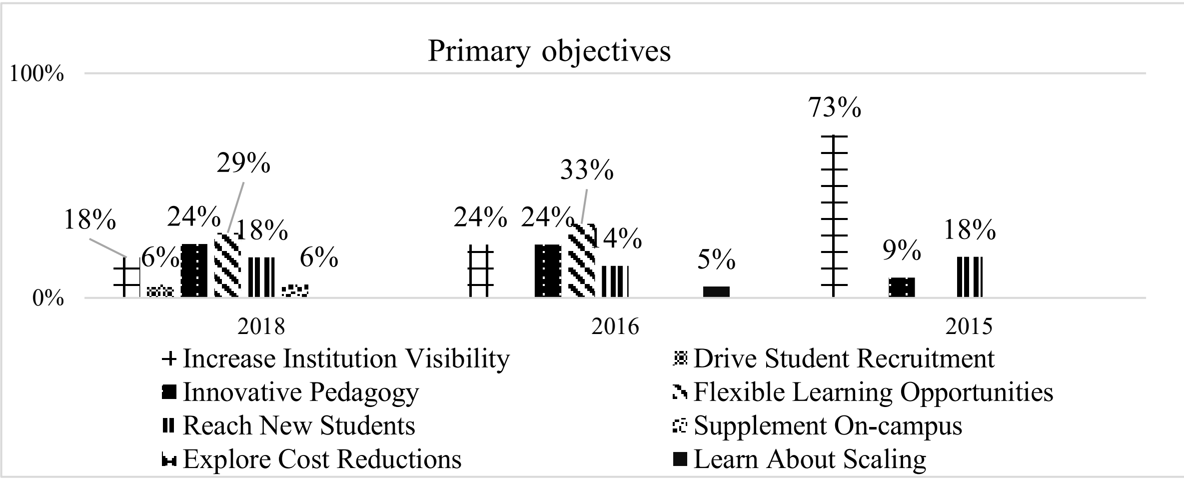


Figure 3. Primary objectives of MOOCs.

Respondents were asked to evaluate the relevance of four clusters: responding to the demands of learners, MOOCs as innovation area, using MOOCs for reputation or visibility and using MOOCs for financial reasons. On the contrary to the question above where respondents were asked to select the most important objectives, respondents indicated the relevance of each cluster.

Participants assessed using MOOCs for reputation / visibility reasons as the most important cluster. In total 88% of respondents consider it to be relevant or highly relevant for their institutions. MOOCs as innovation area (29% - highly relevant, 59% - relevant) and responding to demands of learners (highly relevant - 41%, relevant – 24%) were also evaluated as very important clusters (see figure 4). Using MOOCs for financial reasons was evaluated as not very important cluster for HEIs this might be explained by relatively low learners' engagement and popularity of MOOCs in Lithuania.

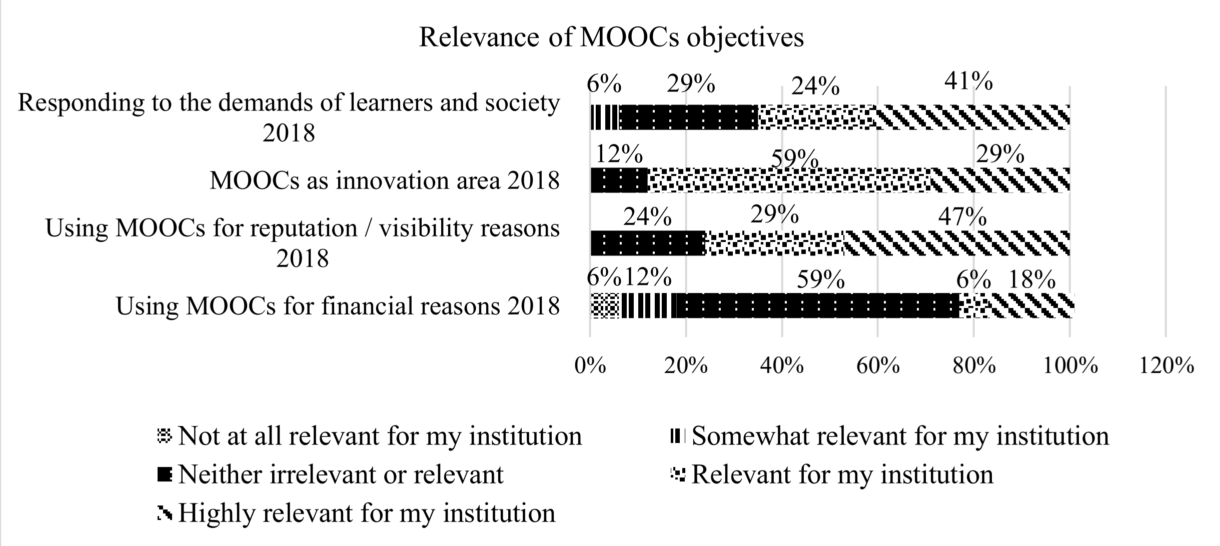


Figure 4. Relevance of MOOCs objectives 2018.

Four following figures represent the comparison between four clusters (innovation area, reputation / visibility, demands of learners and societies, financial reasons) and surveys of 2018, 2016 and 2015. Figure 5 shows that there was a significant difference in the importance of the innovation area of MOOCs in HEIs. The increase of the importance was detected from 2015 (highly relevant and relevant – 64%) and 2016 (highly relevant and relevant – 76%) to 2018 highly relevant and relevant – 88%).

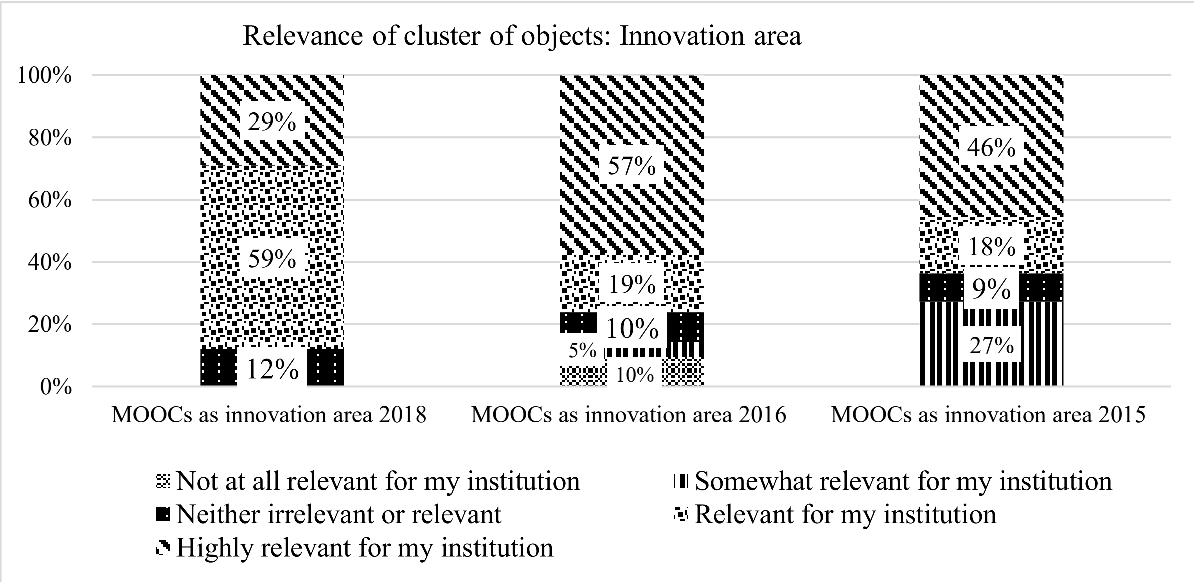


Figure 5. Relevance of MOOCs objectives: Innovation area.

When comparing results between responses to reputation and visibility aspect of MOOCs. In 2015 82% of HEIs perceived that reputation / visibility cluster is highly relevant and relevant in comparison to 81% in 2016 and 76% in 2018. The relevance of MOOCs reputation and visibility is decreasing (see Figure 6).

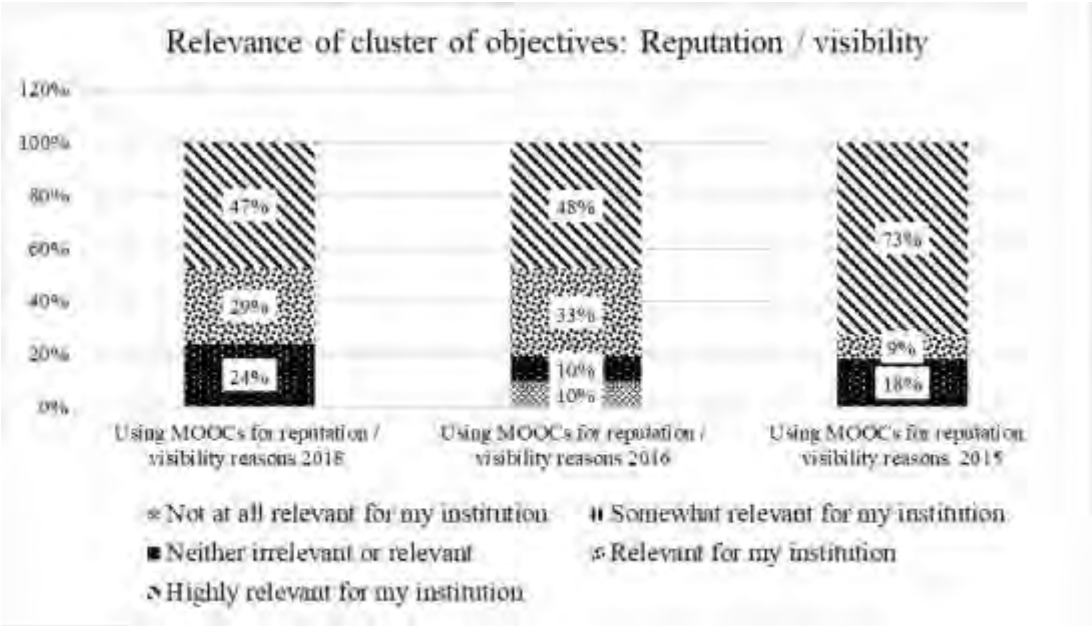


Figure 6. Relevance of MOOCs objectives: Reputation / visibility.

Figure 7 shows that the institutional relevance in responding to demands of learners and societies remained approximately at the same rate from 2016 (highly relevant – 43%, relevant – 24%) to 2018 (highly relevant – 41%, relevant – 24%). The survey shows that MOOCs are considered to be a great tool to fulfil learners' demands at HEIs because of the augmentation in positive responses from 2015 (highly relevant - 27%).

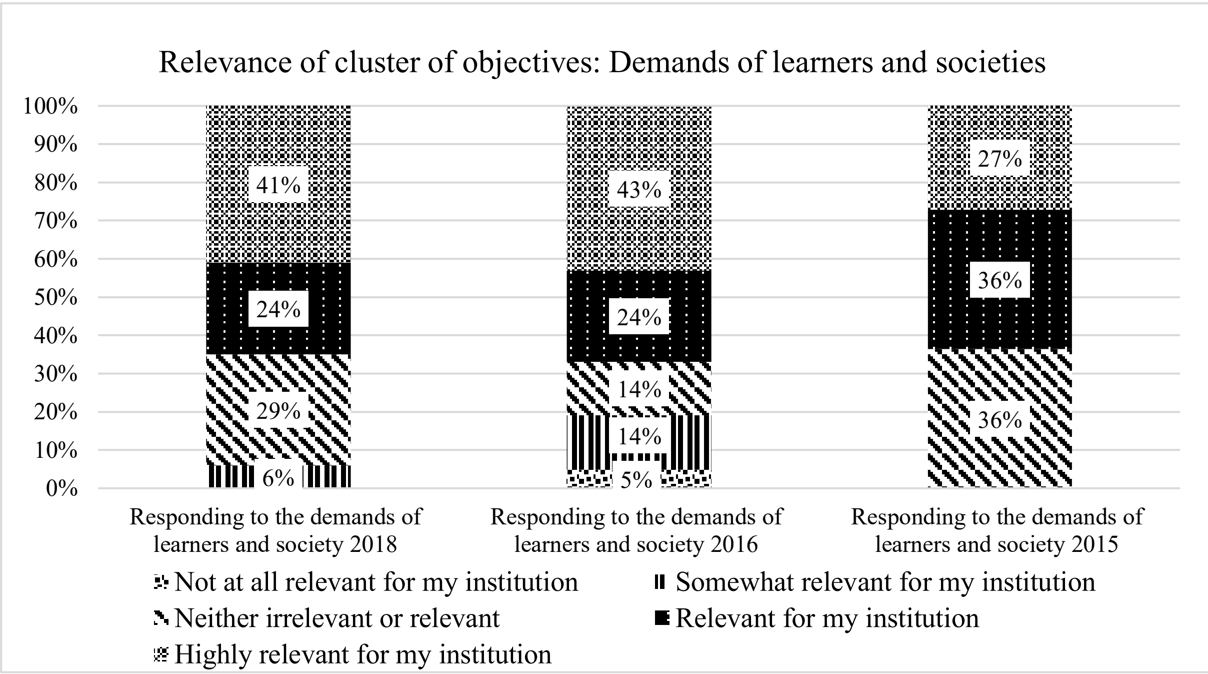


Figure 7. Relevance of MOOCs objectives: Demands of learners and societies.

Figure 8 shows the relevance of financial aspect of MOOCs to HEIs. Financial reasons are seen as not very important reasons to choose provide MOOCs. The differentiation in opinions is not very apparent, however it is possible to notice the decrease of financial cluster importance: 2015 (highly relevant and relevant – 36%), 2016 (highly relevant and relevant – 29%), 2018 (highly relevant and relevant – 24%).

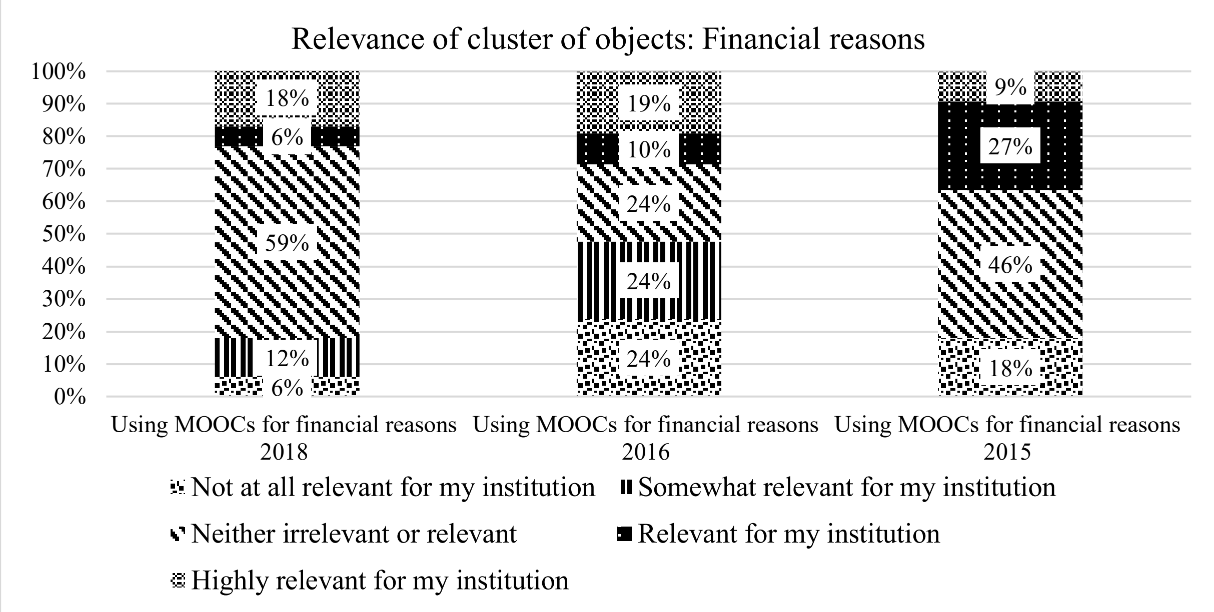


Figure 8. Relevance of MOOCs objectives: Financial reasons.

MOOCs in HEIs are also acting as the means to "*rise teachers' competencies to use innovative learning technologies*" or for "*updating curricula for general education, development teachers' competencies*". Even though of HEIs representatives are aware of MOOCs advantages, the uptake of MOOCs is still not very considerable. Respondents adverted the problem of not enough funding ("*lack of funding*") as a most important cause which prevents mature uptake of MOOCs. Also, it was mentioned that absence of "*Recognition*" is a problem same as widely established traditional education and slow assimilation of innovations: "*...strong classical traditions of learning*", "*educational system*", "*Teachers do not believe in MOOC quality...*", "*...conservatism of HE*". Respondents also were asked that in their opinion, would boost the use/uptake of MOOCs in their region. The most common answer was that it is necessary to create funding system for MOOCs: "*Special funding programmes*", "*special funding for creating and delivery of MOOCs*". Likewise, it is important to notice that in order to uptake MOOCs better it is necessary to resolve its' "*recognition*", "*legalization...*" problem.

## Conclusion

Higher Education Institutions decides to deliver MOOCs due to composite reasons. Literature review showed that HEIs mostly implement MOOCs for prestige and visibility. Also, it indicates the level of innovation in the Higher Education Institutions as MOOCs require new technological and methodological solutions while implementing and delivering them to learners. The results of the research supplement the Literature review by showing that MOOCs increase visibility, innovations in pedagogy and flexible learning opportunities for Higher Education Institutions. Moreover, HEIs that decide to deliver MOOCs not for financial beneficiary, but mostly for demands of learners and society and implementation and demonstration of new innovations in educational technologies and methodology. These results indicate that MOOCs mostly are used for increasing reputation which helps HEIs to stay competitive in the market as well as suggest more services for wider society.

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# Education for Getting Competence

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# The Attitudes of Estonian Crafts Teachers on the Completion of the Crafts Syllabus and the Factors Influencing the Completion of the Syllabus

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**Abstract**: A study on the study literature on Estonian crafts lessons was carried out in 2018 which revealed that study literature on crafts has not been updated simultaneously with the development of the crafts syllabus and that newer literature has been published only for covering new topics. Therefore, crafts teachers have no other option than to use study literature from different time periods and additional sources to carry out the learning process and to complete the syllabus. Besides the study literature and the syllabus which serves as the source document for the studies, several other factors also support the conduction of the studies. This article is based on the study carried out in 2018, investigating the attitudes of crafts teachers on the valid syllabus of crafts and the use of the possibilities to support the learning motivation of the students when completing the syllabus. Moreover, the impact of the physical learning environment of crafts lessons on the completion of the syllabus and the conduction of the learning process was studied. The aim of this article is to describe and account for the attitudes of Estonian crafts teachers in the light of the above studies. A web-based questionnaire was used in the study, which allowed to collect as much study materials as possible within a short period of time. The data was processed with Statistical Package for the Social Sciences (SPSS 25) software. The results indicated that the teachers complete the crafts syllabus only selectively and partially, mostly according to their own beliefs and the possibilities offered by the school. When carrying out the learning activities in crafts lessons, the teachers mainly consider the interests of the students and attempt to support the creation of their learning motivation and positive attitudes towards the subject. The physical learning environment also varies by schools, however, in most cases it does not serve as an important obstacle for the completion of the syllabus.

**Keywords**: craft and technology education, school education, crafts syllabus, teachers' attitudes.

## Introduction

The source document for the learning process in schools is the national curriculum which determines the educational standard and contains the syllabi of different subjects (National curriculum for…, 2014). It can be assumed that crafts teachers mainly use the crafts syllabus as the basis for their work. The studies also reveal that for different reasons (own beliefs, physical learning environment), the teachers tend to deviate from the content of the crafts syllabus (Kikkull, 2016; Riismaa, 2017). A.V. Kelly (2004) has outlined the different definitions describing the curriculum: *complete, hidden, planned and received curriculum*. According to A.V. Kelly, the *complete* curriculum characterises the extent of planned studies. The *planned* curriculum is related to direct learning activities and the *received* curriculum characterises the learning activities that have been carried out. (Kelly, 2004) However, the *hidden* curriculum characterises the purposeful learning of things that are not in the text of the curriculum or occur due to the interpretation of the curriculum by the teacher. The wide occurrence of the hidden curriculum among the Estonian crafts teachers has been outlined by the study by A. Kikkull (2018), which indicated that the main learning objective of the teachers did not originate from the crafts syllabus, instead, the teachers taught their own beliefs and experiences. Additionally, the difference also lies in whether the curriculum only reflects clear educational activities or deliberately unconscious activities which lead to hidden learning. For instance, the personal example of a teacher as the source of unconscious learning. In conclusion, it can be said that despite the unambiguously written curriculum, it can still be interpreted differently by different teachers and is therefore individual (Schwartz, 2006).

The teacher is the one who designs the learning environment and can therefore influence the behaviour of the students by promoting the desired ways of behaviour, however, the teacher can also help to value the learning opportunities – the inner motivation and the need for self-realisation give the learning process a new meaning and value (Brophy, 2010). Consequences do not motivate activities that are intrinsically motivated, the only necessary "reward" is the interest and satisfaction experienced when doing these activities. The typical self-determined behaviour is an internally motivated activity that we take on because of our own will. According to the self-determination theory, the social environment supports the intrinsic motivation, if it fulfils the three natural psychological needs: *autonomy* (deciding on your own what to do and how to do it), *competence* (obtaining skills related to the management and control of the environment and implementation of those skills) and *relatedness* (the feeling of togetherness through proportional relationships) (Brophy, 2010). Hence, the students experience intrinsic motivation in the environment which helps them to satisfy the need for autonomy, competence and relatedness. These, however, are important instruments for teachers for building a student-centred learning environment in crafts lessons. Nowadays, such personalised learning is more and more supported by the syllabus of crafts - Technology (Subject field syllabi…, 2014). If there is no support, the students perceive control instead of the opportunity for self-realisation, therefore, their motivation is mostly extrinsic rather than intrinsic (Deci, Ryan, 1985, 2002).

Starting with the year 2018, the implementation of Competence-based Curriculum has to be started also in Latvia. The new model of education aims at developing students' competences which means - knowledge, understanding, skills, abilities and attitudes. More than 17003 teachers from 80 Latvian educational institutions are going to be involved in the approbation of new curriculum which affects all school subjects, including Home Economics and Technologies. The goal of education is to prepare students for real life and successful career in future. They need not only to acquire the knowledge and skills but also to develop the ability to use their knowledge effectively and responsibly. This means that the role and tasks of teachers are also changing (Pridane, 2017).

People mostly experience the state of flow when they are absorbed in an activity that fascinates them but is also sufficiently challenging at the same time. For the state of flow situation, students usually prefer such situations where the presented problem corresponds to the level of the skills they have. This is valid for all situations where students undertake activities voluntarily and know that the quality of their performance does not have compelling consequences. If for important reasons they have to solve the task effectively, then they will probably prefer situations where their skills outrank the problem. Although we consider the experience of the flow valuable when being absorbed in the activity, we also want to experience satisfaction from the efficient termination of the activity (Brophy, 2010). M. Csikszentmihalyi, K. Rathunde and S. Whalen (1993) say that teachers can promote the creation of the state of flow in three ways. For this, you need the following:

- know your subject well, teach it with passion and serve as an example as a human being;
- maintain optimal balance between the prescribed requirements and the goals that the students are capable of achieving (demand the achievement of high but reasonable goals while helping them);
- offer the students guidance and emotional support, so that they could perform their learning tasks confidently and without anxiety.

Perfect teachers have intrinsic motivation to both learn and teach their subject and they serve as examples to their students (Csikszentmihalyi, 1993; Csikszentmihalyi, 1997). With their enthusiasm, they encourage the students to value this subject and enjoy studying it. At school, anxiety is the factor that most threatens the potential flow status. If students are constantly asked to perform tasks that exceed their skills, they may start preferring the safe monotony instead of potential flow statuses hiding in challenges. Finally, their potential to experience the status of flow in classroom disappears for good. An insufficient challenge may also be the problem: the students admit the lack of interest in lessons where the requirements are clearly below the level of their knowledge and skills (Turner et al., 1998). Therefore, the tasks given in crafts lessons should be with the sufficient level of difficulty and differentiated based on students.

At the same time, achieving constant intrinsic motivation as a goal when planning daily studies and different motivation strategies is not realistic because studying at school requires the achievement of extrinsically established learning outcomes from students, whereas the activity is compulsory and the performance is graded (Brophy, 2010).

Besides the requirements of the syllabus and the motivation of students, the activities of teachers are also influenced by very many other factors, one of which in teaching crafts is the physical learning environment. According to the available knowledge, the impact of the physical learning environment on the completion of the syllabus has not been extensively studied as regards to crafts lessons. At the same time, the physical learning environment and the used materials set considerable limits to the teaching of crafts (Soobik, 2013). For successful learning, the learning environment of crafts must offer opportunities for both the teaching of suitable content as well as allowing students to obtain knowledge when implementing and testing the acquired knowledge (Ritz, Moye, 2011; Parikka, Rasinen, 2009) bring out that as regards to crafts lessons, the physical learning environment where the students are active and work, has one of the most important roles. This is because the workshop is the place where the students are offered the material-technical basis that is needed for their practical work.

The aim of this article is to describe and account for the attitudes of Estonian crafts teachers in the light of the above studies.

## Methodology

This article is based on the opinion survey of the Estonian crafts teachers, conducted in the 2018. The following research questions were set to study the subject:

- What are the attitudes of teachers as regards to the completion of the syllabus?
- How do teachers consider the different abilities and learning motivation of the students when completing the syllabus?
- Whether and how does the physical learning environment affect the completion of the syllabus?

A web-based questionnaire was used to find answers to the research questions. This form of questionnaire was used because within a relatively short period of time and without the researcher being physically present, web-based questionnaires allow to receive structured data which is half ready for data processing (Wilson, McLean, 1994). GoogleForm environment was used to conduct the survey. The questionnaire was forwarded to all the teachers teaching technology education in Estonia (357 respondents). The questionnaire contained 12 free answer or multiple-choice questions, whereas the time spent for the completion of the questionnaire was about 10 minutes. The questions were divided into five categories: *the background data of the respondents, the syllabus and its content, the capacity and motivation of students, the physical learning environment and learning materials.* Eighty-three filled out questionnaires were returned. The questionnaire provided data belonging to different type identifiers, which were analysed with program SPSS 25, allowing to present different necessary statistics.

## Results and Discussion

*Background data of respondents.* The background data of the responded teachers allows to compare them with the general data of the teachers and determine whether the responded teachers represent the section of the general sample or deviate from that (Cohen, Manion, Morrison, 2007). At the same time, the background data allows to compare different teacher groups with each other and find differences and similarities between the groups, and to generally characterise the crafts teachers.

Ninety-four percent of the responded teachers were male and 6% female, which represents the general gender-based distribution of the Estonian crafts teachers (Craft teachers' data..., 2017). The average age of the teachers was 49 years, which represents the general average age of Estonian teachers, which was 47.9 years in 2013. Seventy-four percent of the responded teachers were over 40 and 26% were under 40, which indicates the averagely older age of the Estonian crafts teachers and allows to presume that the teachers currently working have acquired their professional education many years ago. At the same time, 60% of all the responded crafts teachers have higher education, which allows to presume the averagely higher awareness of the subject.

*Syllabus and its content.* The curriculum of the school and the related syllabus are certainly the most important documents regulating the subject. In Estonia, the national curriculum and the syllabi are developed and updated regularly in approximately every 4 to 6 years. Therefore, in order to complete the syllabus, it is essential to know and read this essential document that serves as the basis for the studies. Based on that, the teachers were asked when the last time they read the syllabus of crafts was. The positive thing is that at least 94% of the teachers have read the valid syllabus (Figure 1), however, the attitude of the rest of the 6% of teachers is worrying, since they have not got acquainted with the valid syllabus.

Hence, it may be concluded that teachers are aware of the syllabus and the learning objectives regardless of what kind of learning they carry out in their lessons. Therefore, it can be assumed that teachers are interested in the content of the syllabus and the requirements established for the subject. However, this alone does not ensure the automatic adherence to the syllabus.

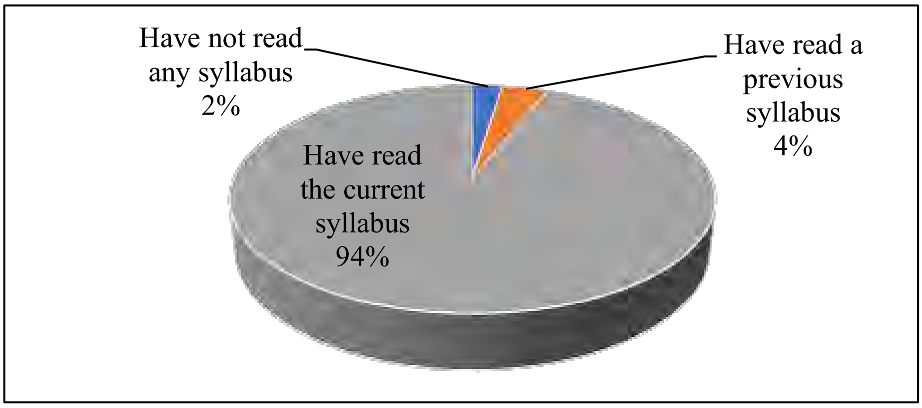


Figure 1. Teachers who have read the syllabus.

For this purpose, the questionnaire investigated the general opinion of the crafts teachers of the syllabus, the importance thereof and the usability of it when carrying out the learning activities. Figure 2 outlines the results. The answers indicate that 39% of the teachers consider the syllabus as an important guidance material for the studies and adhere to it to a greater or smaller extent. However, 25% of the teachers do not consider the syllabus important and they teach at their own discretion, and 36% of the teachers consider the syllabus too complex to understand it properly. Therefore, it can be generalised that 61% of the teachers do not consider the valid syllabus of crafts important as the basis for their teaching process or finds it too complicated. The overload problem of the national curriculum in Estonia is also referred to in the study conducted by P. Viirpalu, E. Krull and R. Mikser (2014).

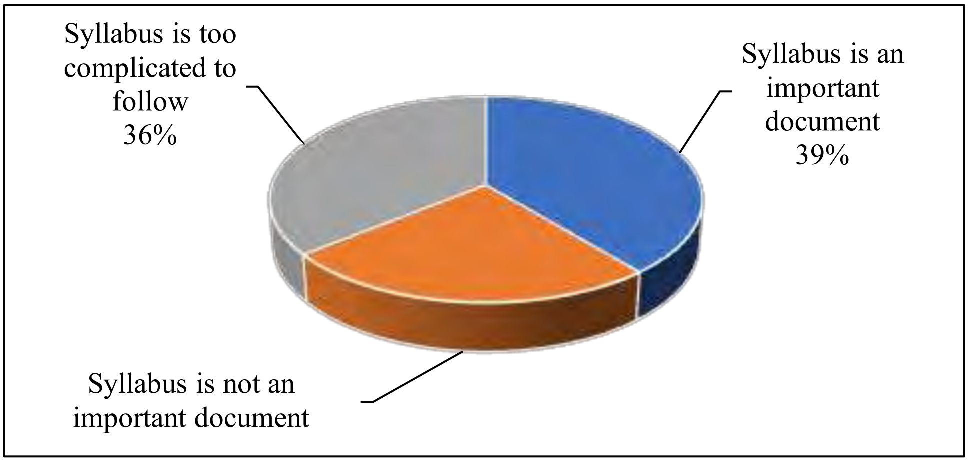


Figure 2. The opinion of the teachers of the syllabus of technology education.

The teachers have also outlined different reasons which prevent them from completing the syllabus. The shortcomings of the syllabus are: difficult to understand, difficult use of language, too general and therefore does not outline specific topics and tools, and the lack of explanatory materials. This situation also allows to presume that teachers are not satisfied with the valid syllabus and that it needs to be developed further and made clear to the teachers. 81% of the respondents also support this position (Figure 3), admitting that they only partially consider it important to execute the content of the syllabus.

Dissatisfaction with the valid national curriculum and misunderstandings regarding the completion thereof may be due to the latest development and updating of the Estonian national curriculum for basic schools (Viirpalu, Krull, Mikser, 2014). Throughout times, the main form for achieving the learning objectives of crafts lessons has been independent practical work with materials and tools (Borg, 2006). The previously valid crafts syllabus also outlined that in crafts lessons, practical activities should cover approximately 2/3 of the learning time. It was not necessary to adhere to such ratio in every lesson. When handling a new work method or topic, the majority of the lesson was spent on theory issues or work techniques. However, in lessons where labour-intensive items were prepared, the best part of the lesson was dedicated to practical work (National curriculum for…, 2002).

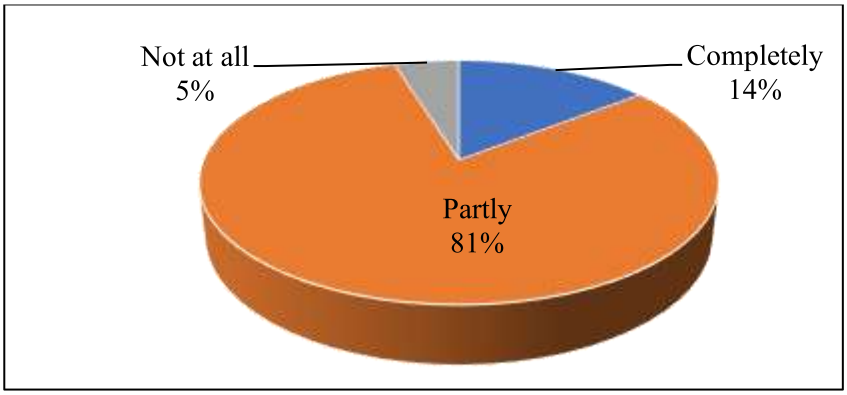


Figure 3. When planning the studies, I consider it important to complete the content of the syllabus.

The new and still valid syllabus for technology education adopted in 2011 did not, however, foresee similar volume of practical learning activities and stressing the importance of different technology related study topics, it divided the studies in technology education into five parts: technology in everyday life; design and drafting; processing of materials; homemaking; project work. The first three parts take up approximately 65% of the studies, homemaking 10% and project work 25% (Subject field syllabi…, 2014).

Based on this information, the teachers were asked which objects of the syllabus they consider important in the crafts syllabus. The answers revealed that teachers consider it equally important to *obtain both technological literacy, incl. development of technology related knowledge and skills*, and to *feel satisfaction of the practical self-realisation* as well as *obtaining knowledge and skills, handling different materials, tools and ways of processing*, which were highlighted 50 times. In principle, teachers confirm the position that in Estonian crafts lessons, practical work skills and satisfaction from the performed practical activities continue to play an important role. This was followed by *creativity and design*, which was noted 42 times.

To sum up, the main point to outline is that teachers are aware of the learning objectives of the syllabus but if there is a clash between their own beliefs of teaching the subject and the syllabus, then teachers mainly rely on their own values and not the guiding role of the syllabus. Teachers care about the traditional values of the subject, which have lasted for decades, and the newest learning objectives of the syllabus, which are based on technology education, are not rooted that easily.

*Capacity and motivation of students.* Students have different knowledge and skills and they have different capacity to perform the tasks. Therefore, for successful teaching, teachers cannot always use unvaried teaching methods and are forced to differentiate and vary the study process. Based on that, it was investigated whether the teachers perceive the differences in completing the syllabus when teaching students with different capacities. It occurred that 78% of the teachers perceives or partially perceives the influence of students with different capacities when completing the syllabus (Figure 4).

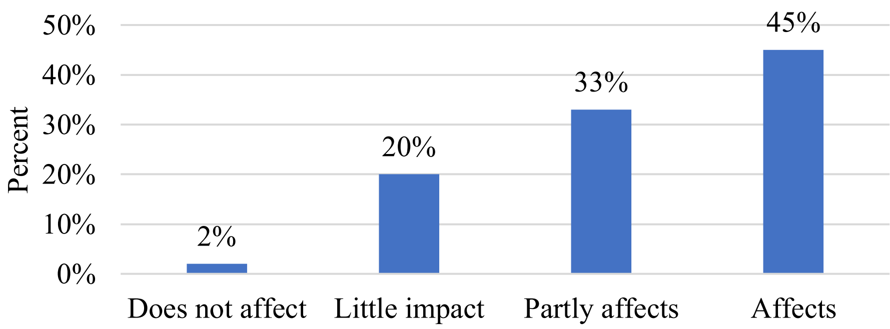


Figure 4. Influence of the capacity of students.

They bring out that depending on the level of difficulty of the studies, the students have different receptivity and that different students cannot achieve the learning outcomes foreseen in the syllabus at an equal level. The latter, however, is largely a subjective assessment for the learning outcomes of the syllabus because the syllabus describes the learning outcomes at a sufficiently general level and allows to differentiate the studies based on the capacity of the students. The attempt of 45% of the teachers to take all students to one level is therefore not justified with the syllabus and it originates from the learning objectives they have set on their own.

The different capacity of students makes the teacher differentiate the study work and use the intrinsic motivation of the students to increase their learning efficiency, encouraging them to study and work (Kikkull, 2016). At school, students should learn how to conceptualise, visualise and materialise their ideas and needs, learn how to take risks, dare to make mistakes and learn how to express themselves through practical work (Hargreaves, 2003). This, however, cannot happen without the sufficient intrinsic motivation and determination of the student. Therefore, from the position of the completion of the syllabus, it is important to investigate, whether teachers use the personal interest and intrinsic motivation of the students for the completion of the syllabus (Figure 5).

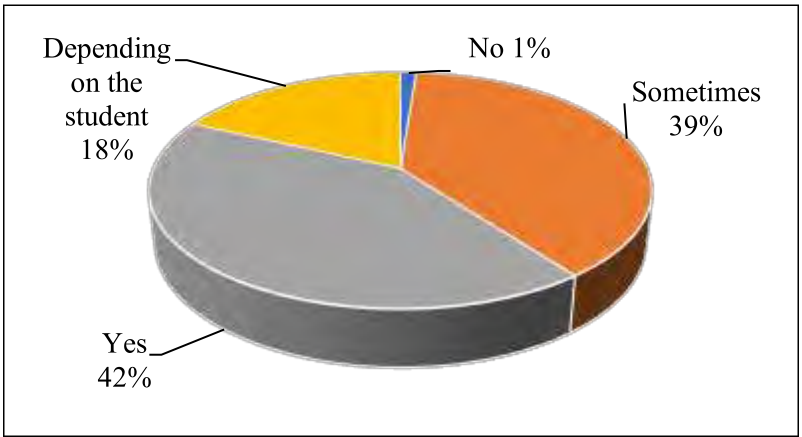


Figure 5. Taking into consideration the different interests of students.

The answers revealed that virtually all teachers have used this opportunity in their work. 18% of the teachers uses the personal interests of students based on the students. This is probably the more active share of the students whose interests in crafts lesson prevail the most. 64% of the respondents provided an answer to the free answer question asking how do they do it. The most popular option (21 respondents) was the greater freedom of choice given to students: the opportunity to come up with a suitable design for their work or the preparation technology, which can also be connected with describing the guidelines of the syllabus of crafts and the learning outcomes with increased level of generalisation. These are the so-called personalised works which allow the students to be more involved in the work process (Kikkull, 2016). Besides that, the teachers considered it important to take the interests of students into consideration (17) and to differentiate the tasks given to students (15). It can be concluded that since the crafts syllabus does not directly determine the work objects or techniques, it gives the crafts teachers in Estonia an unlimited opportunity to differentiate the studies. Nevertheless, not all teachers are capable of implementing it well (Kikkull, 2018). This can be seen in the answers of the teachers regarding the syllabus, where 28% of the responded teachers wished that the syllabus would describe the topics and types of work in more detail.

*Physical learning environment and materials*. Besides the syllabus and the students in the classroom, the physical learning environment is another factor that has an impact on the completion of the syllabus by the teacher (Riismaa, 2017). The teachers were asked if the available physical learning environment limits the completion of the syllabus.

Twenty-seven percent of the teachers answered that the physical learning environment allows to fully conduct the studies according to the syllabus (Figure 6). The improvement of physical learning environments is the result of the renovation of schools during the past decade, which has included the renovation of the workshops in schools (Soobik, 2013). At the same time, 62% of the teachers have problems with the physical learning environment and it prevents them from properly completing the syllabus, and 12% of the teachers work in inappropriate conditions for teaching crafts. The most problematic are the deficient or obsolete tools and lack of space. Both factors considerably restrict the conduction of the studies in larger groups of students.

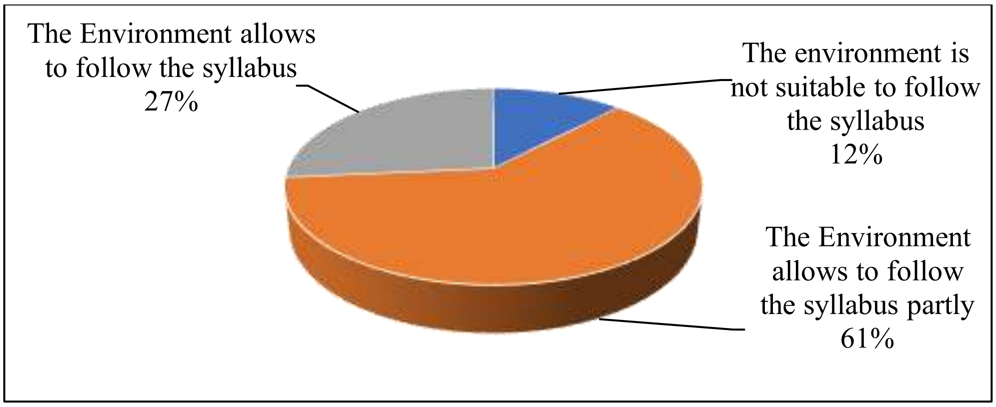


Figure 6. Suitability of the physical learning environment for the completion of the syllabus.

It can be concluded that the learning environment the teacher works in does not considerably influence their attitudes towards the completion of the curriculum. For instance, teachers who work in both good as well as poor physical learning environment have the same attitude towards the full completion of the syllabus (Table 1). Hence, it may be concluded that the completion of the syllabus is not directly related to the opportunities of the physical learning environment and the teachers are more affected by other factors.

Table 1

**Connection between the physical learning environment and the completion of the syllabus**

| Indicators | | | When planning the studies, do you consider it important to complete the content of the syllabus? | | | Total |
|---|---|---|---|---|---|---|
| | | | Not at all | Partially | Completely | |
| Does the physical environment in your school restricts the completion of the syllabus? | The physical environment is unsuitable for the completion of the syllabus | Count | 0 | 8 | 2 | 10 |
| | | % | 0.0% | 80.0% | 20.0% | 100.0% |
| | The physical learning environment does not allow to fully complete the syllabus | Count | 1 | 43 | 7 | 51 |
| | | % | 2.0% | 84.3% | 13.7% | 100.0% |
| | The physical environment allows to perform all tasks | Count | 3 | 16 | 3 | 22 |
| | | % | 13.6% | 72.7% | 13.6% | 100.0% |
| Total | | Count | 4 | 67 | 12 | 83 |
| | | % | 4.8% | 80.7% | 14.5% | 100.0% |

Throughout times, obtaining suitable materials for the lesson has been an important obstacle for the teachers (Alamaki, 1999). When they were asked what is the principle, they use for choosing the tasks and the materials to complete the syllabus, the teachers gave the following answers: 59% of the teachers build their lessons around the available materials (Figure 7) and 29% of the teachers attempt to obtain the necessary materials for the planned lessons. This clearly indicates the schools have great problems with providing the supplies of teaching aids and materials. The materials available in schools largely depend on the initiative of the teachers themselves to find the materials for little or no money.

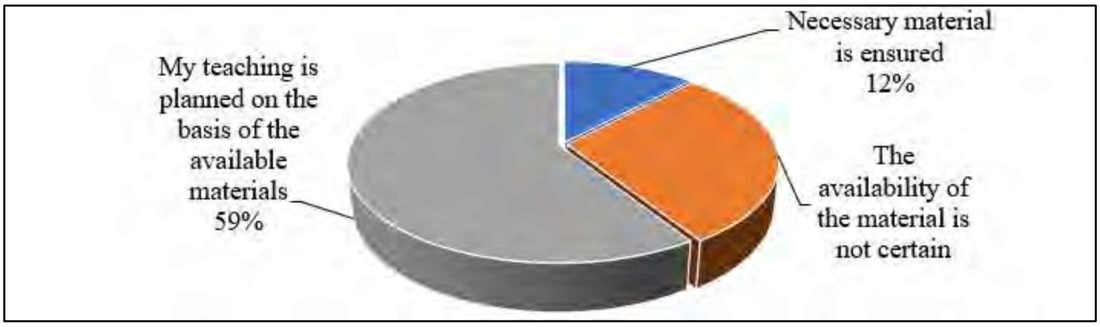


Figure 7. Obtaining materials.

Hence, the selection of materials in schools is neither wide nor of high quality. Unvaried materials, however, considerably inhibit the choice and extent of different types of tasks and does not promote the completion of the learning objectives of the syllabus. Only 12% of the teachers can plan their work in a way that it is not inhibited by lack of materials.

## Conclusions

There are many factors which influence the completion of the syllabus and conduction of the studies, which is why the syllabus can never be fully realised. Besides, the planned syllabus and the received syllabus overlap only partially – this was also revealed by a study, which indicated that more than half of the teachers completes the syllabus of crafts only partially. The statement that teachers carry out the studies based on their previous experience and knowledge and attempt to adjust the syllabus according to their own principles was also confirmed. Although over 90% of the studied crafts teachers had got acquainted with the valid syllabus, they admit that the syllabus is overloaded and too complex, which is an important reason why teachers complete the syllabus only partially. The solution would be the simplification of the syllabus both content and language wise, and publishing a study book as an additional material, which would describe and give guidelines for carrying out the lessons of the subject.

The different capability and learning motivation of the students also plays an important role in conducting the studies. Although crafts lessons are currently relatively popular at schools, the interest of the students must be preserved. The structure of the syllabus of crafts is broad-based and contains great differentiation opportunities. This opportunity is actively used by the teachers, since 80% of them differentiates the studies. Teachers also find it important to boost the intrinsic motivation of students and to support the creation of the state of flow. To do this, teachers consider, if possible, the different interests of the students when carrying out the learning activities.

To carry out practical activities, teachers need both the physical learning environment as well as the means for teaching. Although the condition of the workshops in schools has improved over the years, it has not caught up with the development of the syllabus in schools. The deficiency of the materials (wood, metal, plastic, etc.) necessary for the conduction of practical activities is also a hindering factor which inhibits the completion of the planned topics and tasks. Despite that, teachers are capable of carrying out the planned activities under poorer circumstances, overcoming the limits set by the existing physical learning environment.

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# Importance of Dialogue Nature in the Mediator's Competence

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**Abstract:** Dialogue skills open opportunities to communicate with people purposefully and help to set out information clearly and completely. Dialogue is the main means for successful communication with clients and it helps to maintain the process of mutual relations. The study relates to descriptions of dialogue and dialogical relations in the works of Eastern and Western scientists from the 19th to the 21st century. The aim of the study is to outline the nature of dialogue and to substantiate and explain its functions, components and barriers essential in a mediation process. The main method of the study was the theoretical analysis of dialogue dealing with its importance in education and democracy, and the nature, components, functions and barriers. Dialogue functions, components and barriers are three groups of factors every person has to consider in the process of mediation. A mediator's task is to explain clients the essence and impact of each factor in the conflict solving process. Therefore, learning to be in dialogical relations should be organised before starting the actual dialogue with other person to solve the conflict.

**Keywords**: dialogue, dialogue barriers, dialogue components, dialogue functions, mediator.

## Introduction

Dialogue arose from the Greek word *dialogos* and its two parts *logos* and *dia* mean *through the words* pointing to the process when speaking in deep is important to find out new dimensions of understandings and meanings of views and relations. Dialogue as one of the most humanistic means of making relations more positive has justified itself through centuries and nowadays it is a basis in the mediation process as well. Dialogue is one of the features of the mediator's competence and improvement of dialogical skills is a part of the mediator's further education.

As dialogical skills and conclusions on them have been developing through centuries it is possible to find diverse conclusions and explanations in many philosophical, pedagogical, communication, sociological, psychological, biological, philological, art and other scientific works. The vastness and deepness of the dialogue is described by D. Yankelovich (1999) raising a thesis that there is something magic in it transforming a conflict into co-operation. He recognizes that because of this magic capability the dialogue is unique and other ways of communication cannot implement this positive action, and it is a means of resolving disagreements, sharing information as well as improving a personality and worldview.

As dialogical capabilities are so great it is necessary to revise and reassess their opportunities in relation to concrete professional actions and in this concrete case in the context of the mediator's responsibilities. The study is focused on the dialogue components considering the mediator's work peculiarities with a client.

According to Mediation Law Article No.1 of Latvia Republic (Mediation Law, 2014) mediation is a voluntary co-operation process during which the both sides try to get to mutually acceptable agreement for solving their disagreement by means of mediation.

Mediation is a legal process in many countries and duties and restrictions of the mediator are determined. One example is Malta Mediation Centre where the mediator's main actions are explained also in the homepage. *The principal role of the mediator is to facilitate communication between the parties in conflict with a view to helping them reach a voluntary resolution to their dispute that is timely, fair and cost-effective. Although the mediator manages the meeting and is in charge of the proceedings, he/she should not impose solutions or decisions and has no power to force a settlement. A solution should only be reached by agreement between the parties. They are responsible for the ultimate resolution of the dispute. Furthermore, a mediator has no right or duty to provide legal advice to the parties even if he/she happens to be a lawyer. The parties should seek legal advice solely from their legal counsel. The mediator, however, may raise issues and help parties explore options* (Roles and Duties…, 2018).

Malta Mediation Centre's explanation of the mediator reflects his/her nature and functions and actually they are common in mediation processes in democratic societies. A mediator usually organizes the talks between conflicting sides and act as a guiding force while assisting them to reach a solution. The mediator is not allowed to express personal opinions on the case but he has to promote mutual understanding of both sides by means of dialogue. That is why the aim of the study is to outline the nature of dialogue and to substantiate and explain its functions, components and barriers essential in the mediation process.

## Methodology

In the process of the study the task was to find out theoretical explanations what does it mean to be in a dialogue, what happens within it and what dialogical components, functions and barriers can be summed up. The study relates to descriptions of dialogue and dialogical relations in the works of Eastern and Western scientists from the 19th to the 21st century.

The main method of the study was the theoretical analysis of dialogue dealing with its importance in education and democracy, and the nature, components, functions and barriers by M. Bakhtin (1984), D. Bohm (2004), M. Buber (2010), P. Freire (1972), J. Habermas (1984), W. Isaacs (1999) and J. Kabat-Zinn (2006).

## Theoretical analysis of dialogue

Dialogue can be treated as a complicated and difficult form of communication. It belongs to face to face communication covering a variety rules and having an impact on an individual's personal development (Bakhtin, 1984).

Mediation as a process between a mediator and client actually is learning in its own way by means of dialogue. P. Freire's (Freire, 1972) findings on dialogue in relation to people who had been oppressed could be also useful in mediation because dialogue functions as a specific lesson helping to understand that in everybody is a free spirit and we have to treat each other as subjects and promote respect towards each other. P. Freire (1972) stresses the dialogue's cultural and co-operative function and this is one more good reason why a mediator has to be conscious of the dialogue's positive impact on clients' relations.

J. Jermolajeva's (Jermolajeva, 1997) conclusions are close to P. Freire's (Freire, 1972) opinions on dialogical nature and functions. Her studies reveal that the goal of dialogical upbringing should be the development of dialogical personality who is conscious on connection with the world and people around us, positive in dialogical situations, active, capable to reflect and think rationally. Reaching or coming closer to the goal is a big success for every person because this process creates humanistic transformations and positive experience. The role of the teacher is crucial in the process of learning to become a dialogical personality. V. Purens (2012) named the following qualities of dialogically open teacher: belief and respect of the student; readiness to listen to; readiness to be helpful in difficult situations; ability to find balance between authority and the student's wish for creative expression; flexible manoeuvring with assessment and discussions promoting students' openness for a dialogue. The teacher's qualities and the students' benefits of becoming dialogical personalities reveal a wide range of the opportunities of the dialogue and understanding difficulties and advantages of the process of learning to keep dialogical relations. This is a complicated and time-consuming process. That is why every mediator has to manage dialogical theories and relations with the purpose to teach them to their clients and dialogical themes should take a crucial part of the further education programme of mediators.

According to M. Bakhtin (1984) the development of the dialogical paradigm became more stable in the 20$^{th}$ century and before it in the culture of new ages the monologic paradigm was a dominating one. M. Bakhtin (1984) states that all human actions can be divided into ritual and responsible ones. The ritual actions are focused on the performance of the concrete role to be involved in the appropriate socium or excluded from it if the role is not played according to the standards of each socium. At the same time each real action forms a new event and a person to some extent deviate from a ritual. It is necessary to consider the ritual aspect in the process of the dialogue and understand individually conscious actions influencing a ritual as factors typical to human behaviour. The idea of ritual actions can be complemented with M Buber's (2010) statements that a man who confronts another man can create three pictures: 1) the way he wants to present himself, 2) the way he actually presents himself and 3) what he is really like. The areas marked by the relation „between" can be described as: a mutuality area – „being" with other person, confronting someone or something, a contrast area – for and against, which may assume the form of rivalry and power area which includes the moment of fight. Dialogue relation is when we speak in level I-You and monologue relation is when we speak in level I-It.

M. Buber (2010) wrote about three types of dialogues: monologue disguised as a dialogue, technical dialogue which concerns substantial understanding and real dialogue if we embrace *the other or others in their existence*. A deep dialogue in the sense of lack of effect is possible only in the situation of mutuality, when both parties perceive each other as supporters, at that moment, of dialogue which is supposed not to have any aim.

M. Bakhtin (1984) recognises that a dialogue is a universal way of human existence. This idea is reflected in the 20th and 21st century efforts to keep sustainable development model of society which is based on the principle of harmony between the society and nature, cultural and civilisation processes emphasising dialogical interaction. The efforts, for example, result in peak meetings such as annual World Economic Forum where topical problems of the world are discussed by prominent experts and reports with suggestions are published to pay governments' attention to urgent problems and highlight the importance of their solution (Reports, 2019). It also means the development of multisided skills: listening and hearing, ability to trust the world and other people, to feel connection with the surrounding world, responding to a dialogical situation, deep feeling of one's own "Me", development of high level of rational thinking, development of high level of reflection, autonomous ability of individual behaviour, ability to develop one's individual position and also doubt it, be able to change one's personality, be able to recognise own lack of knowledge or weakness, be able to ask for help from other person and receive it.

Making a dialogue is also quite rational and even technical process because there is an exchange of information and it relates to communication rules. According to N. Luman (1995) there are several types of interrelated selections in communication. They are selection of: understanding and misunderstanding, nature of information and giving of information. N. Luman's thesis is only one example of quite a lot of challenges an individual meet in the complicated communication process. It means that dialogical skills also comprise understanding of communication rules and models.

According to M. Bakhtin (1984) and E. Levinas (Stanford Encyclopedia of Philosophy…, 2006) a relevant feature of dialogue is uniqueness/otherness/tolerance of partners and their positions.

Other dialogue features according to M. Bakhtin (1984) are the following: positions in border area when is a possibility to change; the presence of non-alibi – action in a position of concerned interest, cross-examination; a monologue as a finished sentence and rejoinder from all the dialogue; trust in other words; readiness to learn and explore; search and need to deeper meaning; acceptance; putting the meaning on the point and slouching of meanings; understanding, complementary understanding and understanding beyond borders (understanding how present, understanding of past contexts and expected understanding); the understanding of partner's language and statements; responsibility for statements, words and emotions; logic.

The peculiarity of the method of dialogue is making equal relations among all sides with the purpose to investigate a situation deeply and find a solution together. This method promotes the development of all sides involved in the dialogue. The effectiveness of the mediator's activities depends on competence and in the context of client situations including also personal qualities. The mediators have to try to create a positive social environment and the method of dialogues serves as a link of finding common points for the conflicting sides. The effectiveness of the mediator's competence expresses particularly in conflict and unknown situations, and positive solution depends on the mediator's ability to keep dialogue and achieve mutual understanding among conflicting sides.

D. Bohm (2004) stresses that in a dialogue everybody is a winner. He stresses also physical part in the dialogue calling that mental and physical and there is a close relation between them through information. D. Bohm (2004) perceives the dialogue as a means of filling in a room with maximal attention allowing each person to express oneself both verbally and non-verbally. He recognises reflective function of the dialogue and compares it with a flow of meanings which goes around and through people as well as the function of making culture of mutual understanding, development of thinking and equality excluding hierarchical relations.

D. Bohm (2004) recognises the necessity of help to begin a dialogue and here he speaks about the third person's role who functions as a promoter who acts quite discreetly. It is worth mentioning Bohm's conclusion that participants in a group dialogue overcome fragmentarism and isolation together in spite of their different backgrounds. He calls it a *true dialogue* where people open their views, assumptions and judgements. D. Bohm's (Bohm, 2004) ideas about collectivistic effect of the dialogue are in harmony with W. Isaacs (1999) findings that dialogue keeps people together and they do not keep only to one position but think together and look for possibilities. He also stresses that the dialogue generates respect towards each other as well as fresh ideas. W. Isaacs (1999) and J. Kabat-Zinn (2006) state that the dialogue also is an essential means of developing intelligentsia in every person.

J. Habermas (1984) describing dialogical situation stressed the importance of critical dialogue in which such qualities as bilateral relations without *prejudices, free of domination.* J. Habermas (1984) stressed that *sophisticated skills of introspection, curiosity of otherness and a willingness to uphold reason over power* are required in dialogue.

A mediator's role is not only to promote a dialogue but also to keep its humanistic bilateral culture where the border between the dialogue and not hearing a partner is quite fragile. Efforts are necessary to be in a dialogue and defend one's views and truths and here the mediator's role is very important because he/she helps to get a solution of the problem from one side and to foster the development of more intelligent personality able to hear others and keep the dialogue from other side.

Every mediator has to understand not only positive but also a barrier or negative side in a mediation process as well as that an attempt at dialogue can be very frustrating and could be long process of learning for both conflicting sides.

**Results and Discussion**

Considering theoretical investigations of dialogue, it is possible to determine the following components:

- genuineness;
- emphatic understanding;
- active listening;
- full presence;
- spiritual and mutual equality;
- eye contact;
- clear expression of information;
- interaction;
- listening and hearing;
- trust the world and other people;
- connection with the surrounding world;
- responding to a dialogical situation;
- deep feeling of one's own "Me";
- high level of rational thinking;
- high level of reflection;
- autonomous individual behaviour;
- individual position and doubt of it, be able to change one's personality, be able to recognise own lack of knowledge or weakness, be able to ask for help from another person and receive it;
- equality;
- tolerance;
- fresh ideas.

Dialogue components also serve as indicators of possible barriers in a mediation process because they comprise diversity of necessary actions, ethics, norms and personal qualities, and it is quite hard work to learn and keep it. The following barriers can originate in the mediation process:

- disinterest of the theme of dialogue;
- lack of motivation to be in dialogues;
- lack of time to be in dialogues;
- individual priorities of partners;
- fear of dialogue;
- fear of information and new knowledge;

- fear of one's lack of knowledge;
- lack of respect of the partner;
- reluctance to change one's position;
- discrepancy of values and/or intellect;
- lack of empathy;
- lack of misunderstanding a partner's non-verbal and verbal communication;
- phobias;
- failure to be able to concentrate for a dialogical process;
- various outer disturbances/conditions.

Functions of dialogue:

- promotion of mutual understanding;
- promotion of respect;
- cultural;
- co-operative;
- promotion of democracy.

Constructivism and particularly J. Mezirow's (Mezirow, 1991, 2000) transformational learning theory can be used by a mediator helping to develop clients' dialogical skills. The theories emphasize the importance of reflection and according to J. Mezirow (1991) it is an essential means how people understand themselves and others better, and *new meaning schemes and transforming of meaning perspectives* are implemented. That's why the usage of the mentioned theories could be a contribution in the mediator's methodological work with clients.

Psychologist and dialogue coach S. Rozenthuler (Rozenthuler, 2014; Gethin, 2016) trains leaders, teams and organisations to develop *open and honest conversations.* She recognizes that the *open conversations* promote to *build trust, inspires new ideas, cultivates collaboration, resolve conflict, improve relationship, increase wellbeing, encourage creativity, create more meanings, open doors and expand flexibility*. Her recognitions are from practice, and at the same time can be related to dialogical relations.

Dialogue group practices are a good example how people gradually learn more about each other in the process of dialogue. The dialogue partners learn to look into their inner selves and practice knowing themselves and partners better. Considerable example is career support where dialogue is one of the main methods of counselling (Soika, 2015, 345) *helping to focus the student on mutual consistency of his own ability, interest and his vocational activities.*

Dialogue represents democratic relations and an opportunity to be in dialogical relations belongs to human rights. It is reflected in the Universal Declaration of Human Rights by the United Nations (United Nations, 1948) particularly in articles 1 and 19: *All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood* (article 1). *Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers* (article 19). The declaration is a very good reason and one of the basic documents for the countries joined to the United Nations. It means that dialogue should be fostered by every citizen and in every situation to come to the truth and find solution, and it is a work for the benefit of all the humanity. B.L. Mallory and N.L. Thomas remind that *consciously moving away from the win-lose model of traditional debate to a more equitable, safe and sustained approach to problem-solving, we can foster both ethical principles and democratic* governance (Mallory, Thomas, 2003, 2).

**Conclusions**

Dialogue functions, components and barriers are three groups of factors every person has to consider in the process of mediation. A mediator's task is to explain clients the essence and impact of each factor in the conflict solving process. Therefore, learning to be in dialogical relations should be organised before starting the actual dialogue with other person to solve the conflict.

Continuous development of dialogue components promotes the quality of learning and understanding of the individual's human opportunities in the frame of interpersonal relations. By means of the mediator's help in the dialogical process transformations go on with every individual because the dialogue is a special condition where partners try to understand each other, go deeper in the context of the conflict, investigate and solve it.

Dialogue as one of the ways of communication is effective because its added value is quite multi-sided. It is a means how people get more knowledge about each other including views, emotions and a personality in general. Both sides are winners because they overcome barriers, widen interpersonal experience, intelligentsia and their world view.

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# A University Course of Intercultural Communication: Fostering Students' Skills and Competence

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**Abstract:** Intercultural communication has become an important interdisciplinary field of study of late against the backdrop of internationalisation in all spheres of life in modern society. It is defined as interpersonal communication in intercultural settings and measured by intercultural communication competence (ICC) level. The latter has come to the fore in many professions actualized in international environments. ICC is a complex of multiple components covering personal attributes and skills. Experiences in intercultural communication, acquired knowledge and expertise lead to higher ICC levels. To establish algorithms of enhancing ICC in university courses of intercultural competence, the research aims to determine potential changes in students' perceptions, attitudes and behaviours in intercultural communication settings via studies and simulated communicative landscape. The research design includes two tools: (1) a questionnaire with a view of finding out students' perceptions relating to intercultural communication and its phenomena, and (2) an ICC level assessment technology, measuring ICC before and after taking such a course. Based on the above methodology, the authors found out the students' perceptions of intercultural communication, most popular features of an efficient intercultural communicator (communicative, tolerant, friendly, talkative, agreeable, sociable, positive, flexible, easy-going, sensitive), professions deeply rooted in intercultural communication (psychologists, social workers, and others). The assessment carried out to diagnose the ICC levels before and after a university course of intercultural communication proved that the course takers excelled at some of the components (especially at intercultural behavioural skills, cultural knowledge, and cultural sensibility) singled out within the assessment methodology. The assessments highlighted the positive effects of a university course of intercultural communication on fostering ICC. The research implies that its findings may be generalised and applied in any similar university course to efficiently foster students' ICC.

**Keywords:** intercultural communication, culture, university, higher education, language.

## Introduction

With globalization in all spheres of life and internationalization of global business and world economy on the rise, the issues of intercultural communication and intercultural communication competence (ICC) have come to the fore. Intercultural communication has been studied as a separate field since the mid-1980s. Informed by research within plentiful approaches and disciplines (communication studies, foreign language education, management studies, sociology, interpersonal communication studies, psychology, social sciences, behaviourist approach, interpretive approach, social science (functionalist) approach, critical approach), intercultural communication is a widening area of research.

Authors define intercultural communication as 'interactions among people from different cultures' (Koester, Lustig, 2015, 20); as 'the exchange of information between individuals who are unalike culturally' (Rogers, Steinfatt, 1999). Z. Hua (2014) sees intercultural communication as a broader concept as situation where people 'from different cultural backgrounds come into contact with each other'. A more general approach is supported by J. Jackson stating that intercultural communication 'refers to interpersonal communication between individuals or groups who are affiliated with different cultural groups and/or socialized in different cultural (and, in most cases, linguistic) environments' (Jackson, 2014, 44). Some researchers focus on monoculturality vs interculturality to approach intercultural communication, as in the statement that 'the ability to see the world from different points of view is fundamental to the process of becoming intercultural' (Rogers, Steinfatt, 1999, 2). Intercultural relationships benefit to personality development as they encourage people to acquire knowledge about the world, break stereotypes, and foster new skills (Martin, Nakayama, 2010, 383).

In theory, competence is defined ranging from a personality trait and largely inherent ability to an acquired ability gained via socialisation. Anyway, today competence is never regarded 'as a stable characteristic or trait of a person' (Chen, 2017, 351). Moreover, approaches to intercultural communication in various disciplines mainly depend on their 'emphasizing communicative' competence (related to foreign language education)', or 'their focus on' competence in communication' (Hua, 2014, 156).

Intercultural competence arises out of 'a pressing need for better preparation for cross-cultural adjustment and intercultural relationship building' (Jackson, 2014, 28). Depending on the disciplinary approach, ICC is broken down into various components, important for efficient communication in intercultural settings. 'A better understanding of ICC in day-to-day interactions can be arrived at by exploring how the people who are involved in those interactions describe and understand ICC' (Arasaratnam, Doerfel, 2005, 143). M. Byram notes that the exchange of information is dependent upon understanding how what one says or writes will be perceived and interpreted in another cultural context (Byram, 1997, 3).

ICC and related terms (intercultural communicative competence, intercultural communication, transcultural communication competence, cross-cultural competence, global competence, intercultural interaction competence (Hua, 2014)) are subject to interpretation. Having a lot in common, they are conceptually focused on some aspects of the skills and knowledge. Motivation to interact with other cultures, openness, positive attitude to otherness, high ambiguity tolerance, adaptability and other components of efficient intercultural communication contribute to success in intercultural communication. M.C. Bateson notes that 'an encounter with other cultures can lead to openness only if you can suspend the assumption of superiority, not seeing new worlds to conquer, but new worlds to respect' (Bateson, 2007).

In some professions, ICC is a 'survival' or backbone basis. For sociologists, teachers, interpreters, managers and similar domains, intercultural communication competence is enhanced throughout professional lives and careers. At universities, still more attention is paid to ICC integration into curricula of bachelor and master programmes to educate professionals ready for efficient intercultural interaction. Though some authors suppose that research… 'regarding the concept of intercultural competence and its relevance for … future profession is insufficient' (Kostikova et al., 2018, 919).

The present research is an attempt to find out more about perceptions of future economist, diplomats, sociologists, and journalists relating to the domain of intercultural communication.

The research aimed to find out changes in university students' perceptions of intercultural communication phenomena against the backdrop of acquired knowledge and enhanced ICC while studying a course of intercultural communication at university.

Thus, to attain the aim, the research questions included the following:

1) What are the students' perceptions of intercultural communication and related issues?
2) How much does a course of intercultural communication change the students' attitudes and stances in intercultural communication and foster their ICC?

## Methodology

The research design encompassed two research tools: a questionnaire covering questions on perceptions and stances in intercultural communication, and an adapted intercultural competence assessment methodology (The INCA project…, 2004).

Duration of the research: two years.

The course entitled 'Intercultural Communication' was delivered to 2nd-year bachelor students for one term, with ten flipped learning technology lectures, six project-based seminars, and two complex tests (mid-term and final). Flipped learning technology encourages students' motivation and manages cognitive load (Abeysekera, 2015). The ten classes are defined as lectures where professors sum up every theme previously studied by students on their own. Under the flipped technology, recommended sources are to be thoroughly analysed, tasks are completed, gaps and problems are sorted out for further discussion at lectures. Seminars follow lectures to nurture practical skills. The former were developed via projects, cases, and communicative tasks (communicative situations with a number of objectives to be attained).

*Stage 1* (preceding the course). The sampling was formed to encompass second-year bachelor students at two Russian universities (i.e. MGIMO University and RUDN University) who were supposed to study a course of intercultural communication. The objectives of the study were explained to the participants. The students filled in a questionnaire via Google forms. All answers were anonymous.

At the very beginning of the course, all the participants underwent an intercultural competence assessment, reflecting on the intercultural situations offered. Thus, the level of their competence was fixed as ‘entry level’, or ‘before-course level’.

*Stage 2* (following the course). The sampled students’ intercultural competence levels were assessed again (‘after-course level’).

*Participants.* The number of participants at Stage 1 included 187 students; though only 143 filled in the questionnaire, pre-course and after-course assessments. The remaining 143 bachelor students formed the research sampling, with 59 male and 84 female participants aged from 18 to 20 years old. Professionally, the students represented international economics (61 students, or 42.6 %), history (24 students, or 16.8 %), journalism (19 students, 13.3 %), sociology (39 students, or 27.3 %). During a briefing with the prospective participants, they were informed of the aims of the research. Most participants expressed their professional interest in international communication and ICC. The students’ explicit leaning towards the research subject led to a hypothesis that the participating bachelor students were probably skilled or at least aware of intercultural communication. The sampling took on students who voluntarily agreed to participate in the study.

*Materials.* The questionnaire was built up to cover questions relating to personal data (age, gender, majors, and previous experiences in intercultural communication), and questions to find out what the students knew about intercultural communication, and its phenomena at the beginning of the course. The questionnaire offered questions/ tasks requiring personal definitions or elaborate replies coupled with multiple choice questions on ICC-related phenomena and examples:

1. What is intercultural communication? (*an open-end question*)
2. Which are the most essential skills and personal traits for an efficient intercultural communicator? (*a multiple-choice question*)
3. Which professions are prone to intercultural contexts? (*a multiple-choice question*)
4. Which phenomena are studied within intercultural communication discipline field? (*a multiple-choice question*)
5. Describe a prominent communicator, proficient in intercultural communication. Give adjectives or simple sentences. (*an open-end task*)

*Tools for Assessing Intercultural and Global Competence*

The research design was initially based on Intercultural Competence Assessment Methodology worked out in 2004 within the EU INCA project. The project was funded by Leonardo da Vinci II and resulted in a suite of assessment tools (The INCA project…, 2004).

The concept behind the INCA breaks down the intercultural competence into six components to embrace ambiguity tolerance, behavioural flexibility, communicative awareness, knowledge discovery, respect for otherness, and empathy. The original methodology provided for three levels (basic; intermediate; full, or high) of the components development. All in all, the six components made up ICC. To assess the component level, and ultimately ICC itself, various situations simulating scenarios of intercultural nature were offered to the participants. Their responses to the situations were evaluated against a special scale of replies covering three levels attributed to each component in the assessment.

In the present research, the authors also outlined six components, but those representing both ICC-related knowledge- and skill-focused elements (Component 1: intercultural behavioural skills; Component 2: cultural knowledge; and Component 5: cultural sensibility) and elements relating to personal traits of communicators (Component 3: ambiguity tolerance; Component 4: behavioural flexibility; and Component 6: respect for otherness). The above selection of components was made up in a special theoretical study carried out by the authors within their course of intercultural communication.

The assessment situations and assessment scales also came from the same course. A number of communicative situations per each component level were selected from the didactic materials of the course to make up an assessment pool. Situations were picked up to match a specific aspect (i.e. ICC component). Six components with three levels each formed a pool of 720 situations (360 and 360 snapshots for entry level assessment and for after-course level assessment respectively).

## Results and Discussion

*Students' Perceptions of Intercultural Communication*

While taking up the survey, the participants put down various definitions of intercultural communication. In general, the latter may be boiled down to three broad concepts: (1) communication involving representatives of diverse cultures (49 answers, or 34.3 per cent); (2) communication among people with different mother tongues (44 answers, or 30.8 per cent); (3) communication or interaction pursued by people of different cultures determined by various language backgrounds (19 answers, or 13.3 per cent). The remaining 20 responses were of sporadic nature, quite vague and lied beyond the mainstream replies.

According to the questionnaire, the most essential skills and personal traits of an efficient intercultural communicator embrace social skills, interpersonal skills, flexibility, empathy, positivity, adaptability.

The participants brought out the professions that were most related to intercultural communication with psychologists and social workers as the frontrunners (118 and 101 respondents respectively), university lecturers (98 respondents), journalists (92 respondents), sociologists (89 respondents), interpreters (82 respondents), managers (77 respondents), lawyers (45 respondents), diplomats (42 respondents).

The students considered that the phenomena foremostly associated with intercultural communication included traditions, national stereotypes, cultures, languages, etiquette, schema behaviours.

They also highlighted the following adjectives (on average, each respondent indicated five adjectives) describing an efficient communicator (See Figure 1). Such a communicator must be communicative (96 respondents), tolerant (84 respondents), friendly (73 respondents), talkative (60 respondents), agreeable (59 respondents), sociable (55 respondents), positive (39 respondents), flexible (35 respondents), easy-going (33 respondents), sensitive (31 respondents), good-mannered (28 respondents), quick-witted (24 respondents), upbeat (22 respondents), optimistic (19 respondents), reasonable (12 respondents), open-minded (11 respondents), and cheerful (11 respondents). The list is limited to adjectives repeated at least 10 times.

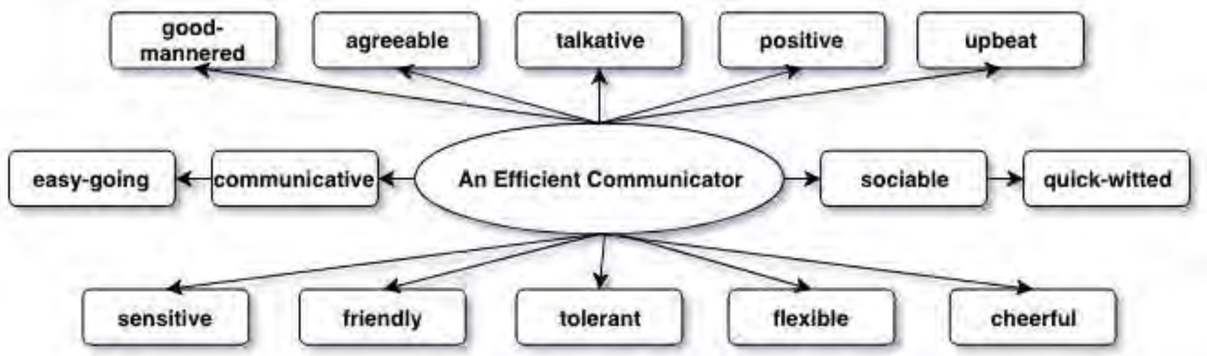


Figure 1. Frequent attributive adjectives typical of an efficient communicator as surveyed in the research.

The above findings connected with high efficiency in communication correlate with other studies. For instance, lecturers, whose job is to communicate knowledge and skills, are good at communication when they are friendly, positive, patient, attentive, and sociable (Mudra, 2018, 61).

The questionnaire responses proved that the respondents were aware of the basic notions of intercultural communication, most with previous experiences of going or studying abroad, or in environments where representatives of other cultures were involved. Entering universities, most students often have previous experiences in intercultural interactions (Tikhonova, Khorokhorina, 2014).

*ICC Assessments: before and after the course taken*

During the entry-level assessment, means for each component were calculated. Thus, the lowest mean indicator of 4.08 corresponded to intercultural behavioural skills, 4.15, 4.24 and 4.25 were calculated for cultural knowledge, ambiguity tolerance, and behavioural flexibility respectively. The highest readings of 4.27 and 4.29 were shown by cultural sensibility and respect for otherness. The mean for ICC entry level reached 4.21, thus, proving that the students' ICC was initially at an intermediate level.

As displayed on the graph (See Figure 2), all six after-course means considerably rose after the students had completed the course: intercultural behavioural skills at 5.04, cultural knowledge at 5.06, ambiguity tolerance at 4.76, behavioural flexibility at 4.98, cultural sensibility at 5.11 and respect for otherness at 5.05.

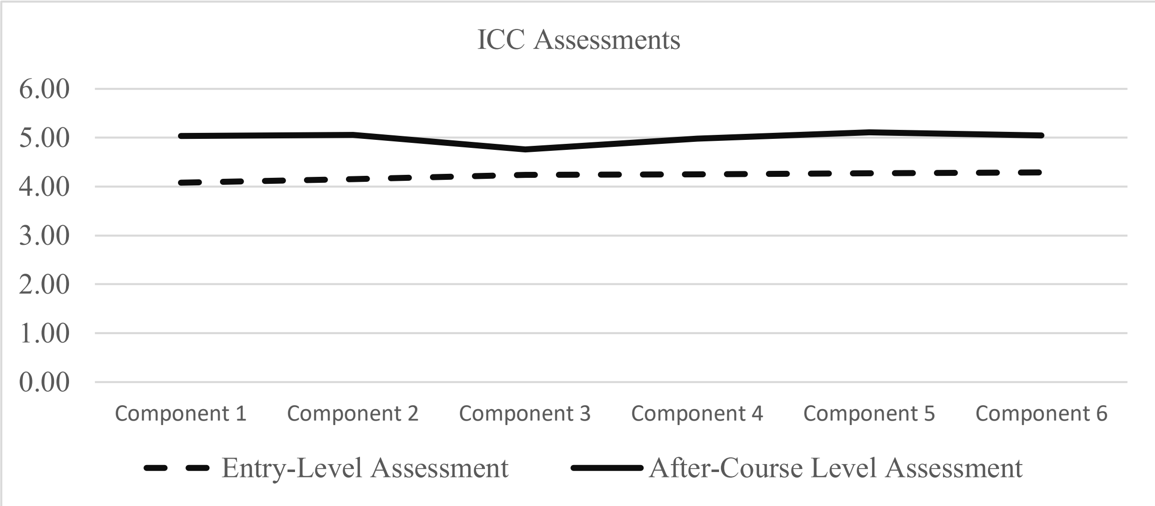


Figure 2. Entry-level and after-course level assessments of ICC (component means).

The highest surplus was made by intercultural behavioural skills (0.96), cultural knowledge (0.91), and cultural sensibility (0.84). The rise in those components is logically explained by the newly acquired knowledge and skills. These require less time and may be fostered in an artificially set up environment. In contrast, ambiguity tolerance, respect for otherness and behavioural flexibility cannot be easily influenced while studying. For instance, 'to have the ability to reduce uncertainty we need both to understand others, however different their cultural background may be from our own, and to be able to communicate with them sensitively' (McLaren, 1998, 5). It is evident that people need real-life experiences to succeed in building up ambiguity tolerance. The same is true for flexibility and attitude to otherness.

The data show that the delivered course boosted the students' ICC by 0.79. The figure is extracted from the mean comparison of entry-level and after-course ICC level assessment results.

The research has a number of limitations. The sampling is confined to four professions. The assessments tests were simplified to cover only six components of the diversity of skills and attributes within the ICC. More separate studies may help to find algorithms to influence each component separately or in concert with others.

## Conclusions

The research findings show that the students' perceptions of intercultural communication prove the hypothesis that they were aware and had some previous experiences before taking up the course of intercultural communication at university. The students perceive intercultural communication as communication among people of different cultural and/ or native language backgrounds. Social skills, interpersonal skills, flexibility, empathy, positivity, adaptability are singled out as the most essential skills and personal attributes for efficient intercultural communication. The top five professions closely related to intercultural communication cover psychologists, social workers, university lecturers, journalists, and sociologists. Traditions, national stereotypes, cultures, languages, etiquette, and schemas emerged from the questionnaire as well-known phenomena related to intercultural communication. The students find an efficient communicator communicative, tolerant, friendly, talkative, agreeable, sociable, positive, flexible, easy-going, sensitive (top 10 adjectives as attributes of an efficient communicator).

The research assessment methodology appeared to be efficient and reliable in measuring the ICC levels. The level assessments held before and after the university course of intercultural communication prove the course effect on enhancing the students' ICC, with the highest levels attained in such ICC components as intercultural behavioural skills, cultural knowledge, and cultural sensibility. The research also proves the hypothesis that the impact on skills is more evident that that on personal attributes. The findings imply that a course of intercultural communication taken by bachelor students leads to improvements in ICC, subject to deeper involvement in communicative situations and communication-simulating settings.

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# Some Aspects of Motivating Tertiary Students in Learning Oriental and European Languages

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**Abstract:** Motivation as a concept, motivating factors and the role of the teacher in the motivation mix have received considerable attention lately. Tertiary students seem to be the ones who have potent intrinsic motivation simply because completing a degree is not compulsory. Nevertheless, motivation is seen to be directly related to learners' performance and achievement. Thus, the study attempted to explore motivating factors for tertiary students in a specific educational setting – in a college where they are supposed to take up two foreign languages and study them both from scratch (or at best to continue one from of them from an intermediary level) simultaneously, the task made more challenging by the fact that the major language is an Oriental or an African one. Therefore, the aim of the study was to question the students about their perception of the motivating factors, including the importance of the figure of a teacher and the teacher type related to authoritarianism versus a more democratic management style; gender-related differences, if any, were of particular interest, as well as those concerning particular languages, namely European languages vs oriental ones. For this purpose, a questionnaire was devised, printed out and distributed among the students. The responses, which were given in the teachers' absence, were subsequently collected and analysed. The results of the survey suggest that intrinsic motivation is indeed the prevalent form of motivation for tertiary students in both Oriental/African and West European language, though the role of the teacher and relevant interesting materials and topics for discussion help foster the intrinsic motivation. A more democratic style of class management is seen by the students as preferable and more conducive to language learning.

**Keywords**: motivation, educational process, tertiary education, Oriental/West European languages.

## Introduction

Much has changed in the modern classroom starting with the shift from teacher-centred to student-centred environment. Much has changed about the content which has received a major makeover. Technological tools, which are supposed to appeal to digital natives, have become an integral part of teaching and learning. Motivation has been actively researched and analysed having become one of the main elements of effective teaching. What has changed about the teacher and the teacher's role? Is the teacher a provider of knowledge or a facilitator of learning? Is the teacher the one who knows how to teach? Or is it the one who knows how to learn? It is assumed that teachers change and adapt accordingly with the change in approaches and teaching styles. Do they? What motivates students to learn? And what traits, abilities and attitudes do modern students wish to see in their teachers?

According to R.C. Gardner (Gardner, 1985), back in the 1950-s learning a foreign language was considered to be a matter of intelligence and verbal ability. Not much attention was given to such concepts as motivation or language anxiety. After all, if a foreign language was on the curriculum the students were just supposed to learn it. Now motivation in foreign language learning in general and willingness to communicate in particular has received a lot of attention. Motivation as a multi-faceted concept, though, has proven to be particularly elusive and hard to define. According to Z. Dornyei, we seem to have some intuitive understanding of motivation, though so far, no motivational theory has succeeded in providing a comprehensive definition of what motivation is (Dornyei, 2011). As for willingness to communicate, it seems to be easier to grasp and is defined as "a learner's readiness to enter into discourse at a particular time with a specific person or persons using a L2" (MacIntyre et al., 1998).

Perhaps, the most common distinction in motivation theories is that of intrinsic versus extrinsic motivation, the former being the one which involves activity carried out for its own sake and satisfaction, pleasure and joy associated with it. The second type deals with behaviour which is aimed at receiving some extrinsic reward (e.g. good grades) or at avoiding negative consequences such as punishment (Dornyei, 1998).

In a practical sense motivation has been dissected into several components - Language Level, Learner Level, Learning Situation Level (Course-Specific Motivational Components and Teacher-Specific Motivational Components) and finally Group-Specific Motivational Components (Dornyei, 1994). “Teacher specific motivational components concern the teacher's behaviour, personality and teaching style, and include the affiliative motive to please the teacher, authority type (authoritarian or democratic teaching style), and direct socialization of student motivation (modelling, task presentation, and feedback)” (Dornyei, 1998).

R.C. Gardner’s motivational theory distinguishes two major orientations - integrative and instrumental. The former concerns "motivation to learn a second language because of the positive feelings toward the community that speaks that language". Instrumental orientation refers to "the practical value and advantages of learning a new language" (Gardner, Lambert, 1972) and is often associated with a practical or pragmatic benefit such as a better job or higher salary.

The textbook authors and publishing houses have been doing their utmost to create teaching materials which are relevant and interesting, to design tasks which are challenging and engaging. Why then do some foreign language learners shy away from speaking up in a classroom environment that is specifically designed to foster communication? And what is the role of the teacher in motivating their students to put effort into learning a foreign language generally and engage in communication in a foreign language in class in particular? The importance of the teacher role was largely ignored until quite recently, perhaps, because it was commonly taken for granted that the teacher is the person who received formal training in employing the best possible strategies for their students’ achievement.

Basing on his own experience and involvement in professional relationships J.A. Polk writes about traits of effective teachers and singles out “ten basic characteristics of effective teachers: good prior academic performance, communication skills, creativity, professionalism, pedagogical knowledge, thorough and appropriate student evaluation and assessment, self-development or lifelong learning, personality, talent or content area knowledge, and the ability to model concepts in their content area” (Polk, 2006).

These traits are interrelated, for instance, elaborating on the necessity of life-long learning, J.A. Polk emphasizes that “a teacher’s passion for teaching and learning does not go unnoticed by students. By continuing to seek out learning opportunities, teachers continue to serve as models of what a learner should be (Polk, 2006).

The review of recent studies suggests that effective teachers know the subject matter and behavioural strategies concerning class management, they teach enthusiastically and energetically, using a high degree of intensity. “Teacher intensity refers to a global level of enthusiasm and other behaviours, such as maintenance of eye contact, closeness to students, voice use, and gestures and expressions” (Madsen, Standley, Cassidy, 1989). In several studies a teacher was ranked as more effective and interesting thanks to their enthusiastic manner even if the content of the lesson was poor or inaccurate (Hamann et al., 2000; Madsen, 2003).

R.C. Gardner generalizes that language teachers must have knowledge of the language and skills to operate it. At the same time it implies that they have enough proficiency to teach the language because the students are quick to see through the teacher who does not have sufficient proficiency. Besides the teacher is supposed to have the necessary training alongside personality traits and abilities in order to not only to teach the language but also to motivate the students to acquire the knowledge and use it (Gardner, 2001).

Many researchers have commented on teacher personality and how it correlates with effectiveness, for example, R.P. Cantrell, A.J. Stenner and W.G. Katzenmeyer concluded that more effective teachers are (a) more knowledgeable from a behaviour theory standpoint than one likely to espouse primitive, controlling strategies for dealing with pupils; (b) much more positive, supportive, and comfortable with pupils than authoritarian; and (c) more likely to use a higher rate of praise or encouragement statements and to ask more questions while still being moderately directive in the classroom” (Cantrell, Stenner, Katzenmeyer, 1977).

W. Sanders and S. Horn suggest that “the effectiveness of the teacher is the major determinant of student academic progress. Teacher effects on student achievement have been found to be both additive and cumulative with little evidence that subsequent effective teachers can offset the effects of ineffective ones” (Sanders, Horn, 1998).

Despite a wealth of literature on effective teaching and traits of effective teachers, questions still arise whether all the teachers are willing to adapt.

"In typical classrooms, the most important asymmetry in the rights and obligations of teacher and students is over control of the right to speak. To describe the difference in the bluntest terms, teachers have the right to speak at any time and to any person; they can fill any silence or interrupt any speaker; they can speak to any student anywhere in the room and in any volume or tone of voice" (Cazden, 2001).

Moreover, teachers feel that they are not supposed to explain their choices to their students be it a choice of materials to be used in class, a choice of tasks to be done or a choice of students to be asked and grades to be given. Even democratically-minded teachers are in this respect autocratic.

C. Cazden also writes about the importance of a shift from "recitation to something closer to a "real discussion" in order to treat topics that do not fit the lesson structure". She advocates classes which provoke discussion and exploration rather than answering the teacher's questions though the latter are certainly easier to evaluate and grade. She stands up for lessons in which teachers talk "less than the usual two-thirds of the time and students talk correspondingly more; in which students themselves decide when to speak rather than waiting to be called on by the teacher; and in which students address each other directly" (Cazden, 2001).

In "Ten Commandments for Motivating Language Learners" Z. Dornyei and K. Csizer give what they call macro strategies aimed at enhancing the students' motivation:

- set a personal example with your own behaviour;
- create a pleasant, relaxed atmosphere in the classroom;
- present the tasks properly;
- develop a good relationship with the learners;
- increase the learners' linguistic self-confidence;
- make the language classes interesting;
- promote learner autonomy;
- personalize the learning process;
- increase the learners' goal-orientedness;
- familiarize learners with the target language culture (Dornyei, Csizer, 1998).

In fact, all the commandments concern the teacher and their professional behaviour in the classroom. After all, it is the teacher's responsibility to provide interesting material for the language classes, to enhance the students' autonomy, to make sure the learners are oriented towards specific and measurable goals and to provide a proper presentation of tasks. But for the purposes of this particular study only three commandments – 1, 2 and 4 – were focused on. The teacher is obviously the most important role model in the classroom. Is he\she interested in the subject matter they teach? Is this interest contagious for the students? Do the students see the effort that the teacher puts into teaching? Attitude toward the learning situation is a key factor having an influence on motivation. Clearly, a tense classroom environment is hardly conducive to learning but rather tends to produce student anxiety. Practicing teachers are aware of the fact that "a good rapport between the teacher and the students is a basic requirement in any modern, student-centred approach to education" (Dornyei, Csizer, 1998).

Therefore, the aim of the study was to question the students about their perception of the motivating factors, including the importance of the figure of a teacher, the teacher type related to authoritarianism versus a more democratic management style; gender-related differences, if any, were of particular interest, as well as those concerning particular languages, namely European languages vs oriental ones.

**Methodology**

For this aim, a questionnaire was designed for the students of the Institute of African and Asian Studies, Lomonosov Moscow State University. The peculiarity of this college is that the students major in one of the specialties – economics, philology, political studies or history - and at the same time in one of oriental or African languages which they study from scratch (A1). According to the syllabus, the students are also supposed to take up a West European language as L3. For some students it is French, Spanish or German which is again studied from A1, though for some students it is English which they mostly continue to learn from B1-B2 levels. The number of academic hours given to an oriental/African language and a West European one differs significantly – the former is studied for 16 academic hours per week, while the latter for 6 (1st, 2nd and 4th years) and as few as 4 (3d year). Thus, specializing in non-linguistic disciplines, the students are still supposed to have an extensive program in languages. The questionnaire comprised multi-choice questions in the students' native language – Russian – and pertained to their perception of their language proficiency level after completing secondary education, type of teacher personality and other motivating factors. The questionnaires were printed out and distributed among the students in class. The responses, which the students gave anonymously at their leisure, were subsequently collected and analysed. The questionnaires were completed and submitted in the teachers' absence.

Let us turn to the results of the survey conducted in the Institute of Asian and African Studies (IAAS) among the bachelor degree students of all the four years of studies majoring in one of the four specialties – history, political studies, economics or philology. As it was mentioned above, it would not be completely correct to call the IAAS a linguistic college because the students receive a classical education in oriental studies with a deep knowledge of languages which implies a large number of academic hours allotted for relevant oriental or African languages. The survey was conducted among 76 persons, with the method of accidental sampling being applied. The gender composition: females accounted for 72 % (54 persons), males made up 28 % (21 persons), among them: 1st year -13 persons, 2nd year -18, 3d year - 13, 4th year – 32 persons. The languages the respondents major in included: Oriental/African (16) – Arabic, Chinese, Vietnamese, Korean, Japanese, Mongolian, Hindi, Hebrew, Urdu, Farsi, Persian, Thai, Indonesian, Hausa, Amharic, Afrikaans; West European (4) – English, French, German, and Spanish).

## Results and Discussion

When asked "What is the most important thing for you while learning a foreign language at University" the respondents chose (Figure1):

- Subject matter of materials and discussions in class - 39 persons (51 %)
- Teacher – 45 persons (59 %)
- Atmosphere in class - 39 persons (51 %)

All in all the students were quite satisfied with the range of topics they were supposed to discuss during classes in both their European and Oriental languages - totally satisfied with the topics were 16 people (21 %) and 21 people (72 %) respectively, while the numbers of respondents who answered "rather yes than no" were 41 persons (53 %) and 26 persons (34 %) respectively.

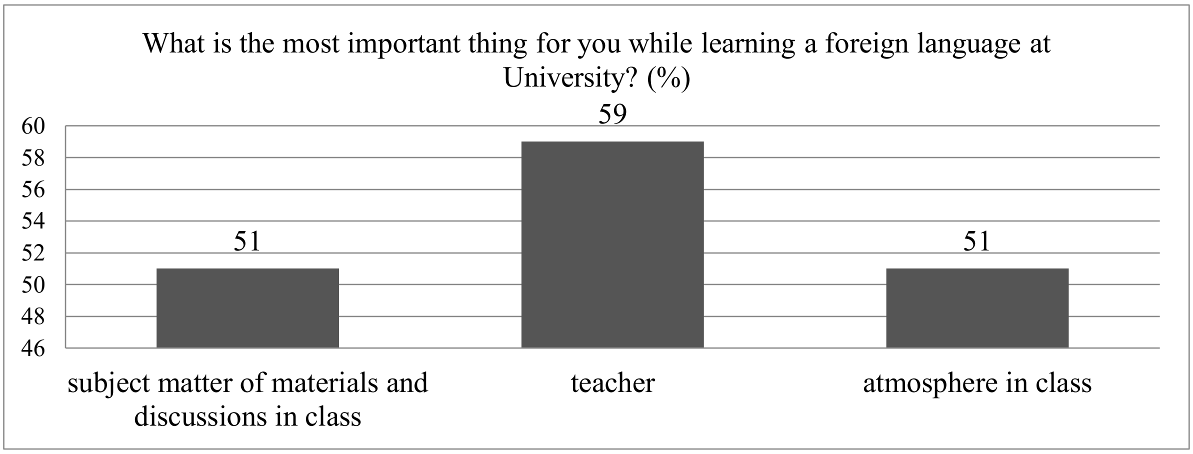


Figure 1. The most important factors for learning a foreign language.

The analysis of questions aimed at identifying the most interesting topics that stimulate intrinsic motivation which in its turn defines the learner's attitude to the subject matter and provides progress in their mastering of a foreign language showed the following results:

The larger part of the respondents (72 %) considers that pressing contemporary problems are the most interesting topic for discussion in class in both the oriental and European languages. (Figures 2, 3) The second place is divided among three topics: literature which accounts for 40 %, everyday life topics and politics account for 39 % at the lessons in West European language, and history, politics and everyday life topics make up 52 % for classes in an Oriental language.

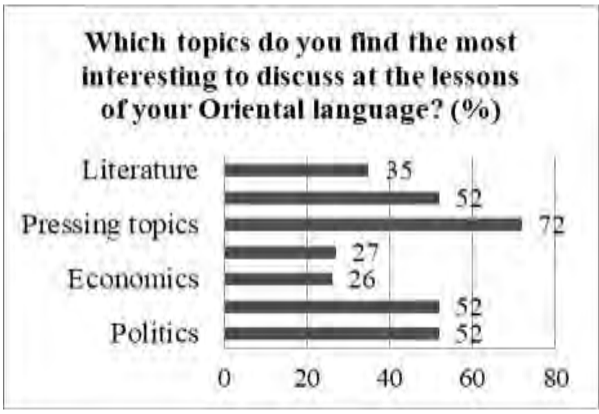


Figure 2. Most interesting topics in Oriental languages.

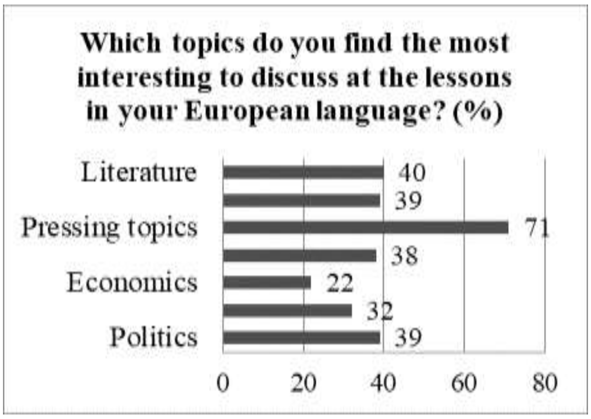


Figure 3. Most interesting topics in European languages.

The third place is taken by: popular science topics – 38 %, history -32 % - in classes of European languages, and literature – 35 %, popular science – 27 % - at Oriental languages lessons. At the bottom of the list of the most interesting topics respondents named economics – 22 % and 26 % (West European and Oriental languages respectively).

Two of the questions were aimed at finding out the teacher personality type (democratic or authoritarian) which the students find most conducive to language learning (Figure 4) and the teaching style they have encountered most often (Figure 5).

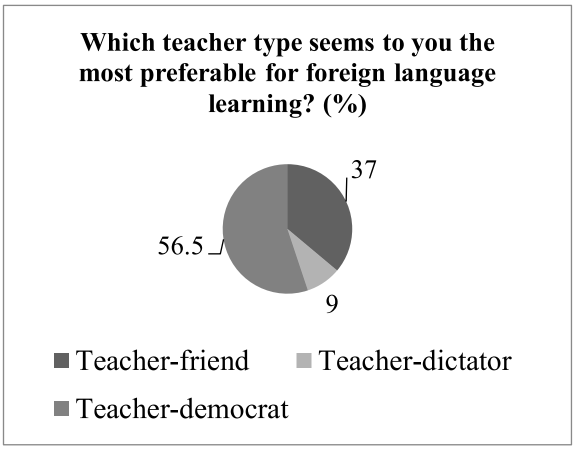


Figure 4. Teacher type that seems the most preferable for foreign language learning.

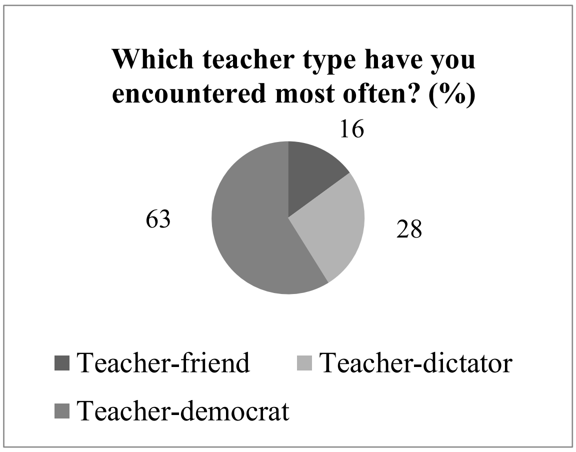


Figure 5. Teacher type you have encountered most often.

What would rather motivate you to engage in communication in a foreign language in class?

- Wish to get a good grade/credit/exam – 13 persons (17 %)
- Wish to make a good impression on the teacher – 10 persons. (13 %)
- Interesting topic – 60 persons. (79 %)
- General atmosphere in class – 51persons. (67 %)
- Diligence as a personality trait – 17 persons. (22 %)
- Wish to perfect the language – 46 persons. (60.5 %)
- Something else: the wish to express own ideas, classmates, thought of moving to Great Britain.

As far as gender differences are concerned, the results of the survey showed the following:

1. The question "Which type of teacher seems to be the most preferable for learning a foreign language?" yielded the following results (Figure 6):

Teacher-friend – 28 persons (37 %), females- 21 (39 %), males -7 (33 %).
Teacher-dictator – 7 persons (9 %), females -6 (11 %), males – 1 (5 %).
Teacher-democrat – 43 persons (56.5 %), females – 29 (54 %), males -14 (66 %).

2. The question "Which teacher type have you encountered most often?" (Figure 7):

Teacher-friend – 12persons, (16 %), females -10 (18 %), males – 2 (9.5 %).
Teacher-dictator – 21persons, (28 %), females – 13 (24 %), males – 8 (38 %).
Teacher-democrat – 48persons, (63 %), females – 35 (65 %), males – 13 (62 %)

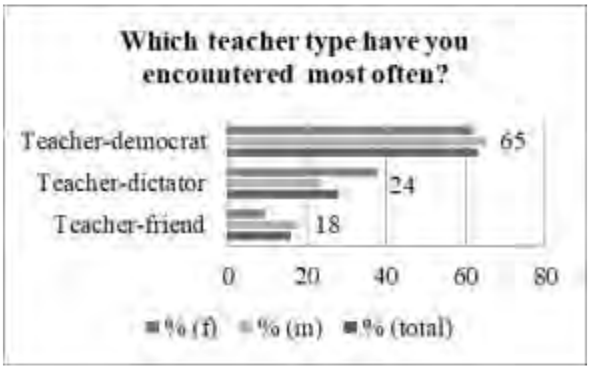


Figure 6. The most preferable type of teacher.

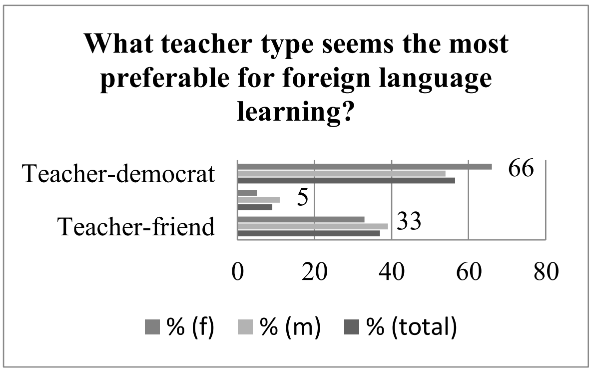


Figure 7. Teacher type you encountered most often.

3. What would rather motivate you to engage in communication in a foreign language in class (Figure 8)?

Wish to get a good mark/credit/exam – 13 persons, (17 %), females – 12 (22 %), males – 1 (5 %).
Wish to make a good impression on the teacher – 10 persons (13 %), females – 9 (17 %), males – 1 (5 %).
Interesting topic – 60 persons (79 %), females – 42 (78 %), males – 18 (86 %).
General atmosphere in class – 51persons, (67 %), females – 36 (67 %), males –15 (71 %).
Diligence as a personality trait – 17 persons (22 %), females – 14 (26 %), males – 3 (14 %).
Wish to improve the language – 46 persons (60.5 %), females – 33 (61 %), males – 13 (62 %).
Something else: wish to express own ideas, group mates, thoughts of moving to Great Britain.

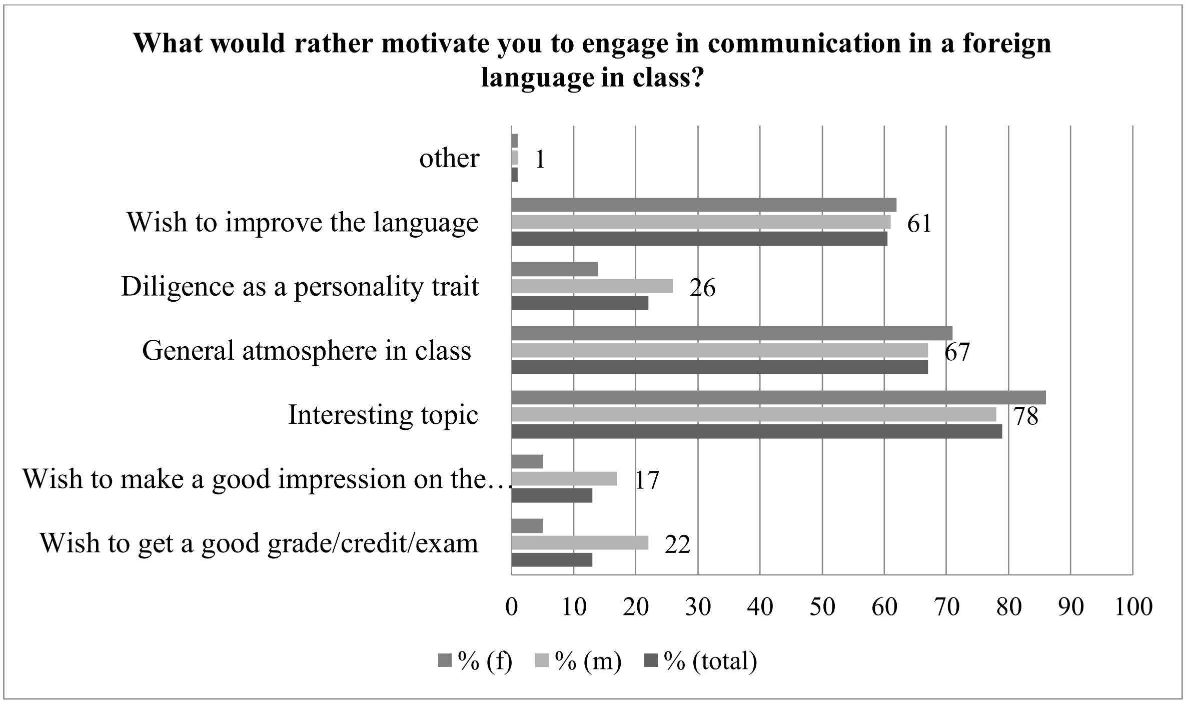


Figure 8. Motivating factors in a foreign language class.

## Conclusions

The results of the survey suggest the following conclusions.

- For tertiary students' intrinsic motivation is the prevalent form of motivation, i.e. the wish to improve and perfect languages accounts for the majority of responses, which can be interpreted as an understanding by the students of the instrumental value of foreign languages in their future employability.

- The role of teacher is of significant importance in providing a supportive general atmosphere in class and relevant materials and topics for studying and discussing.
- It might be worthwhile to conduct differentiated studies aimed at respective specialties, e.g. separately for history students or economics students, etc.
- Averaged data for all the four specialties demonstrates that the learners, regardless of the language (Oriental or European) are strongly attracted by topics common to all mankind which pertain to the key issues of the present.
- If one puts aside economics (for students majoring in it) and politics (for future political scientists), it is possible to see a typical picture of modern youth's interests – pressing contemporary issues, literature, everyday life.
- The gender differences do not seem conclusive just because there happened to be many more female students among the respondents. It would be interesting to conduct a survey on a group with a more even gender distribution to explore the motivating factors related to sexes.
- It would be also interesting to focus future research on such aspects of teacher personality as democratic versus authoritarian types. What exactly does it mean to be a democratic teacher? Besides, it would be challenging to try to find out if a language taught professionally somehow affects the teacher. Does the culture of the language – a European one versus an Oriental one - influence the teacher who is not a native speaker?
- In the modern educational process, it is important to retain the learner's interest in studying a foreign language. The most essential component of fostering this interest is a motivational aspect, the inner force urging the student to master a foreign language, and in our case, several foreign languages simultaneously, and creating positive attitudes to learning, which in its turn helps achieve certain goals and opens up doors to a professional carrier in society.

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# The Implementation of Transformative Case Study Model for the Development of Professional English Language Competence in Business Administration Studies

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**Abstract**: Transformative learning is one of the most significant and popular theories in the field of higher education. This article emphasizes the case study method usage in professional English language teaching as supporting transformative learning. It presents a transformative case study model and reports that transformative learning applied in case study modules develops student professional English language competence, which is of vital importance as it enables the learners to face complex demands of their future career. The main aim of the present research was to implement the transformative case study model in the professional English course and to determine its impact on student professional English language competence development. The results of the empirical research conducted by the author confirm that by implementation of the study program using the case study method and transformative learning principles, it is possible to promote professional English language competence of business administration students. The created transformative case study model can be applied in the professional English course as it observes specific features of entrepreneurship.

**Keywords**: transformative learning, case study method, professional English language competence, university education.

## Introduction

The students of business administration at the higher school have to develop a number of such important competences as critical thinking, creativity and innovation, collaboration, entrepreneurship, lifelong learning as well as to acquire knowledge related to the business domain such as business management and personal management. Moreover, the students have to be able to communicate in the foreign language on the professional level effectively in order to accomplish duties and achieve aims at work. Business administration graduates who possess professional English language competence are in great demand nowadays.

A task for the teachers of professional English courses at the higher school is to use more efficient teaching methodologies aimed to educate creative, reflective and competent professionals who can develop personally meaningful and transferable knowledge and understanding (Briede, 2009; 2016). The author of the present research reckons that modern professional English learning process should be transformative and it should involve students in meaningful learning situations where they study actively and experientially.

The proponents of transformative learning J. Mezirow (1991, 2003), E.W. Taylor (2007), E.W. Taylor and P. Cranton (2013), S. Merriam (2004), M. Tennant (1991), D. Boud (Boud, Keogh, Walker, 1985), P. Race (2006), J. Stepanova (2017) emphasize the importance of experience, critical reflection, and reflective discourse in the learning process. The mentioned above authors articulate that the learner's personal review of his or her experience creates meaning, which leads to a paradigm shift, change in beliefs, worldview and behaviour. In transformative learning a person surpasses the mere reception of information and undergoes a complicated process of conscious change reassessing beliefs, values and assumptions, critically analysing different perspectives in order to act more effectively. Therefore, it is essential that adult learners analyse their experience by reflecting, evaluating and reassessing it individually or together with others.

The author of the article has concluded that the case study method can form a transformative learning framework and may be one of the most efficient active approaches of professional English education. The author suggests that the usage of case study modules in professional English course facilitates student transformation as it: provides the learners with activities in which they are transformed through their actions, interaction and relations; involves the learners in experiential learning; encourages active use of the learner's relevant prior life experiences in new learning; encourages critical examining of assumptions, beliefs and values; improves research and investigative skills; involves the learners in active and reflective learning experiences.

Having investigated and analysed the theoretical background of transformative learning and case study method the author of the research began to develop transformative case study model for the students of business administration in Baltic International Academy. During several study years the author has been involved in the process of implementation, evaluation and improvement of the created model. The transformative case study model for the development of professional English language competence in the professional English course in business administration studies is presented below (Figure 1).

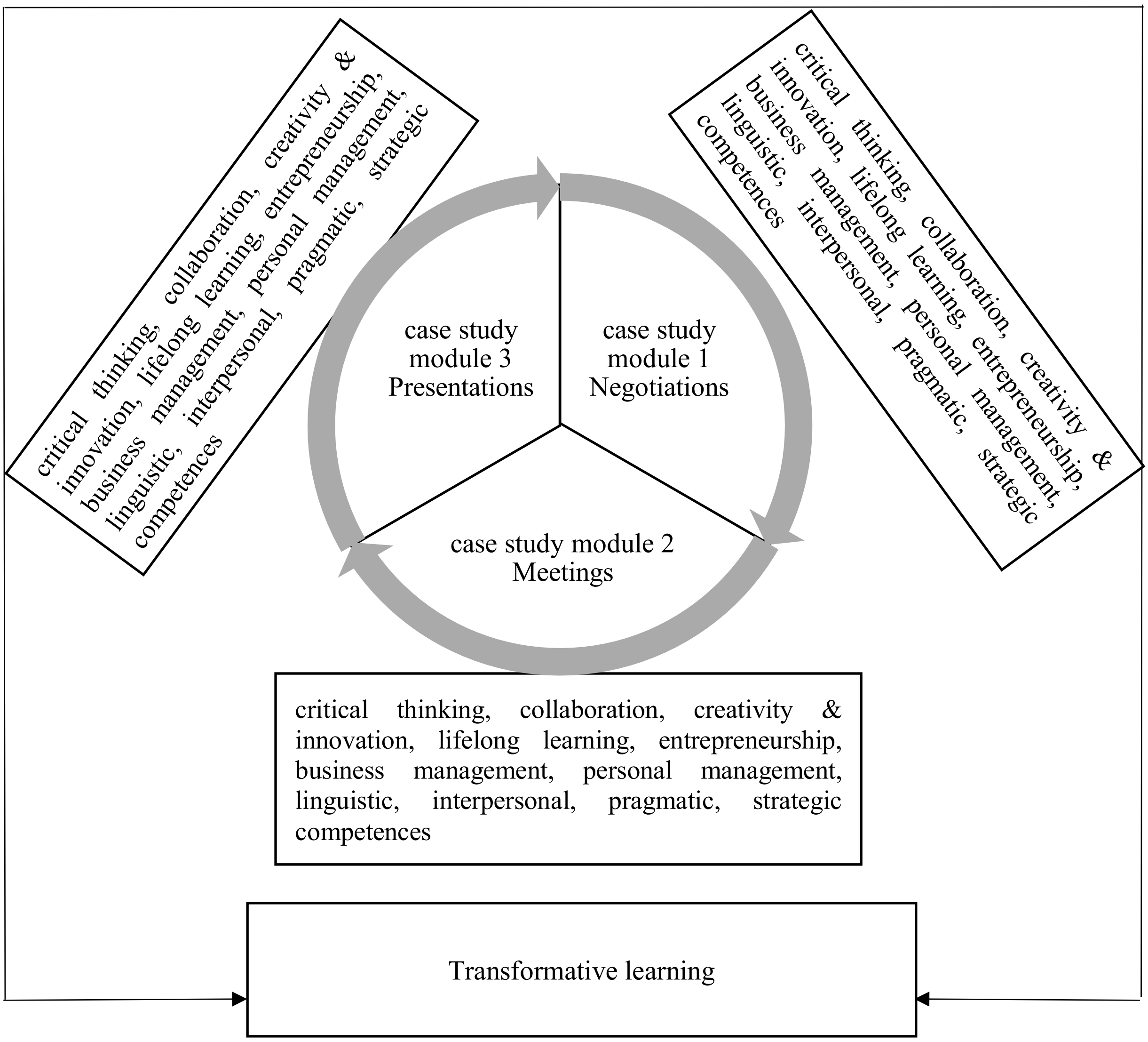


Figure 1. The transformative case study model.

The transformative case study model consisting of three modules titled Negotiations, Meetings and Presentations was used in the professional English course to develop the professional English language competence comprising critical thinking, collaboration, creativity and innovative thinking, life-long learning, entrepreneurship, business management, personal management, linguistic, interpersonal, pragmatic and strategic sub-competences.

Case study, as a specific language teaching method, provides an excellent opportunity for students to learn both the foreign language and business administration subject-matter and can lead to practical acquisition of professional English language competence. Therefore, the aim of the present research was to determine the transformative case study model's impact on student professional English language competence's development in the professional English course in business administration studies in higher education.

## Methodology

Experimental data were obtained by carrying out a number of studies undertaken during the period of five years, from 2014 to 2019, with the aim to determine the transformative case study model's impact on student professional English language competence development.

The first stage of the research focused on unstructured observation in Baltic International Academy and the description of the process of involving 107 1st year students of business administration in transformative case study modules with the aim to develop the professional English language competence.

The second stage of the research focused on the student assessment of the professional English language competence development in participation in transformative case study modules within the framework of professional English course. The results were obtained in: 1) teacher assessment of the professional English language competence constituent components: critical thinking, collaboration, creativity and innovative thinking, life-long learning, entrepreneurship, business management, personal management, linguistic, interpersonal, pragmatic and strategic sub-competences' development after the professional English course and 2) student professional English language competence self-evaluation. Seventy-five 1st year business administration students of Baltic International Academy took part in all three types of assessment.

The third stage of the research, involving 73 1st year business administration students of Baltic International Academy, examined student opinion on the case study method usage in professional English course.

The fourth stage of the research, involving 67 1st year business administration students of Baltic International Academy, examined whether the professional English course promoted transformative learning.

## Results and Discussion

In the end of the professional English course the teacher assessed the development of the professional English competence's constituent components: critical thinking, collaboration, creativity and innovative thinking, life-long learning, entrepreneurship, business management, personal management, linguistic, interpersonal, pragmatic and strategic sub-competences. The results are presented below in Table 1.

Table 1

**Teacher assessment of student professional English language components' development after the course**

| Nr. | Competence components | Teacher assessment | | | | | Non-parametric descriptive statistics | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Excel-lent (10) | Very good (8-9) | Good (6-7) | Fair (4-5) | Poor (1-3) | | | |
| | | Rank | | | | | Mo | Me | A |
| | | 1 | 2 | 3 | 4 | 5 | | | |
| | | Date distribution, *n=75* | | | | | | | |
| 1. | Critical thinking | 10 | 27 | 32 | 6 | 0 | **3** | 3 | 4 |
| 2. | Collaboration | 14 | 51 | 5 | 3 | 2 | **2** | 2 | 5 |
| 3. | Creativity and innovation | 17 | 22 | 30 | 3 | 3 | **3** | 2 | 5 |
| 4. | Lifelong learning | 35 | 14 | 14 | 12 | 0 | **1** | 2 | 4 |
| 5. | Entrepreneurship | 28 | 23 | 18 | 6 | 0 | **1** | 2 | 4 |
| 6. | Business management | 29 | 26 | 15 | 5 | 0 | **1** | 2 | 4 |
| 7. | Personal management | 11 | 46 | 9 | 8 | 1 | **2** | 2 | 5 |
| 8. | Linguistic | 3 | 23 | 38 | 11 | 0 | **3** | 3 | 4 |
| 9. | Interpersonal | 2 | 48 | 19 | 4 | 2 | **2** | 2 | 5 |
| 10. | Pragmatic | 9 | 37 | 24 | 3 | 2 | **2** | 2 | 5 |
| 11. | Strategic | 5 | 39 | 26 | 4 | 1 | **2** | 2 | 5 |
| | **Total** | **163** | **356** | **230** | **65** | **11** | | | |

Assessment very good (8-9) is domineering, which is statistically significantly different ($p < 0.00$). The professional English language competence's components Lifelong learning, Entrepreneurship, Business management are the highest assessments. It is confirmed by verification with interactive calculation tool for chi-square tests (Preacher, 2001).

After the professional English course, the students also participated in self-evaluation of the professional English language competence. The results obtained in the student self-evaluation are presented in Table 2 below.

Table 2

**Student self-evaluation of professional English language competence development**

| Nr. | Competence components | Student self-evaluation | | | | | Non-parametric descriptive statistics | | |
|---|---|---|---|---|---|---|---|---|---|
| | | excellent (10) | very good (8-9) | good (6-7) | fair (4-5) | poor (1-3) | | | |
| | | Rank | | | | | Mo | Me | A |
| | | 1 | 2 | 3 | 4 | 5 | | | |
| | | Date distribution, *n=75* | | | | | | | |
| 1. | Critical thinking | 8 | 36 | 25 | 5 | 1 | 2 | 2 | 5 |
| 2. | Collaboration | 16 | 48 | 6 | 3 | 2 | 2 | 2 | 5 |
| 3. | Creativity and innovation | 23 | 18 | 29 | 4 | 1 | 3 | 2 | 5 |
| 4. | Lifelong learning | 29 | 18 | 15 | 13 | 0 | **1** | 2 | 4 |
| 5. | Entrepreneurship | 31 | 23 | 17 | 4 | 0 | **1** | 2 | 4 |
| 6. | Business management | 32 | 29 | 10 | 4 | 0 | **1** | 2 | 4 |
| 7. | Personal management | 12 | 45 | 10 | 6 | 2 | 2 | 2 | 5 |
| 8. | Linguistic | 6 | 19 | 40 | 10 | 0 | 2 | 3 | 4 |
| 9. | Interpersonal | 5 | 42 | 16 | 9 | 3 | 2 | 2 | 5 |
| 10. | Pragmatic | 5 | 44 | 23 | 2 | 1 | 2 | 2 | 5 |
| 11. | Strategic | 7 | 39 | 15 | 12 | 3 | 2 | 1 | 5 |
| | **Total** | **174** | **361** | **206** | **72** | **13** | | | |

As well as in the teacher evaluation, in student self-evaluation assessment very good (8-9) is domineering, which is statistically significantly different ($p < 0.00$). Competence components' Lifelong learning, Entrepreneurship, Business management are the highest assessments. It is confirmed by verification with interactive calculation tool for chi-square tests (Preacher, 2001).

Another stage of the research examined student opinion on the case study method's usage in the professional English course. The results of the findings are presented in Table 3 below.

Assessment Strongly Agree + Agree are domineering. Their sum (1495) is statistically significantly different from assessment Disagree and Strongly disagree sum (374). Strongly Agree + Agree (1+2) assessment have a wide range (20...61). In several cases statistically significant difference cannot be observed, for example, statement 19: I took part in peer-evaluation ($p>0,127$), and statement 24: I was aware of alternative solutions of a problem ($p>0,87$). For the statement 19: I took part in peer-evaluation, Median cannot be defined in actual fact, and it is in brackets (2).

Table 3

**Student opinion about the case study method usage in the professional English course**

| Nr. | Statement about the professional English course | Average | | Strongly agree, Agree | Disagree, Strongly disagree | Range |
|---|---|---|---|---|---|---|
| | | $M_o$ | $M_e$ | 1 + 2 | 4 + 5 | $R_{1+2}$ |
| 1. | I easily got used to working on a case study in the course | 2 | 2 | 39 | 22 | 28 |
| 2. | I have developed presentation skills | 2 | 2 | 57 | 10 | 6,5 |
| 3. | I took decisions with incomplete information | 2 | 2 | 40 | 22 | 26,5 |
| 4. | I developed skills I need to participate in meeting | 2 | 2 | 52 | 10 | 12,5 |
| 5. | I solved problems collaboratively | 1 | 2 | 51 | 10 | 15 |
| 6. | I developed public speaking skills | 2 | 2 | 48 | 18 | 22 |
| 7. | I developed foreign language interactive skills | 2 | 2 | 60 | 5 | 2 |
| 8. | I was actively involved in case study | 2 | 2 | 51 | 17 | 15 |
| 9. | I had an opportunity to experience various real business situations | 2 | 2 | 56 | 9 | 9 |
| 10. | I was involved in the analysis of a case | 2 | 2 | 44 | 16 | 24,5 |
| 11. | Case study increased my motivation in English learning | 2 | 2 | 46 | 15 | 23 |
| 12. | I developed English reading skills | 1 | 2 | 56 | 11 | 9 |
| 13. | Case study enhanced my understanding of the business environment and its problems | 2 | 2 | 56 | 10 | 9 |
| 14. | I integrated knowledge from other subjects into case study | 2 | 2 | 50 | 8 | 17,5 |
| 15. | Case study increased my team-working skills | 2 | 2 | 51 | 14 | 15 |
| 16. | I applied what I had learned in practice and it helped me understand the problem better | 2 | 2 | 59 | 13 | 3 |
| 17. | Case study enhanced my information summary skills | 2 | 2 | 40 | 21 | 26,5 |
| 18. | I took part in self-evaluation | 1 | 2 | 55 | 11 | 11 |
| 19. | I took part in peer-evaluation | 2,4 | (2) | 37 | 25 | 29 |
| 20. | I tried to solve a problem creatively | 2 | 2 | 49 | 14 | 20 |
| 21. | I used my logical thinking skills | 2 | 2 | 50 | 8 | 17,5 |
| 22. | I have developed negotiation skills | 1 | | 57 | 10 | 6,5 |
| 23. | I approached business problems from various perspectives | 1 | 1 | 61 | 2 | 1 |
| 24. | I was aware of alternative solutions of a problem | 3 | 3 | 20 | 21 | 30 |
| 25. | I learned non-verbal communication skills | 2 | 2 | 44 | 14 | 24,5 |
| 26. | I learned written business communication | 1 | 1 | 52 | 11 | 12,5 |
| 27. | I reflected on my participation in case study | 2 | 2 | 58 | 7 | 4,5 |
| 28. | I developed tolerance to other opinions | 2 | 2 | 49 | 5 | 20 |
| 29. | I was more responsible for my learning than usual | 1 | 2 | 58 | 6 | 4,5 |
| 30. | After the course I feel more confident to use English | 2 | 2 | 49 | 9 | 20 |
| | | | Sum | 1495 | 374 | |

The next stage of the research examined whether the professional English course promoted student transformative learning. After the professional English course, the students were asked to complete the Likert-type questionnaire where they ranked statements about the course as ‘strongly agree’, ‘agree’, ‘neither agree nor disagree’, ‘disagree’ and ‘strongly disagree’. The results are presented in Table 4 below.

Table 4

**Transformation in the professional English course**

| Nr. | Statement about the professional English language course | Average | | Strongly Agree, Agree | Strongly disagree, Disagree | Range |
|---|---|---|---|---|---|---|
| | | $M_o$ | $M_e$ | 1+2 | 4+5 | $R_{1+2}$ |
| 1. | It helped me discover that learning is contextual. | 2 | 2 | 47 | 7 | **17** |
| 2. | It increased my sense of responsibility. | 2 | 2 | 50 | 9 | **12** |
| 3. | I analysed critically various situations. | 1 | 2 | 53 | 6 | **7** |
| 4. | It helped me understand my strengths. | 1 | 2 | 47 | 9 | **18** |
| 5. | It helped me understand my weaknesses. | 2 | 2 | 48 | 9 | **14** |
| 6. | It helped me motivate myself. | 2 | 2 | 44 | 17 | **21** |
| 7. | It helped me find new objectives in learning English. | 2 | 2 | 57 | 3 | **2** |
| 8. | It helped me realize importance of working in teams. | 2 | 2 | 48 | 15 | **15** |
| 9. | I assessed my knowledge/skills myself. | 2 | 2 | 52 | 8 | **8** |
| 10. | I developed a sense of connection to other group mates. | 2 | 2 | 40 | 15 | **27** |
| 11. | It taught me treating others with respect. | 1 | 2 | 41 | 16 | **25** |
| 12. | I experienced and enjoyed creative learning. | 1 | 2 | 51 | 11 | **9** |
| 13. | It helped me build confidence in speaking English. | 1 | 1 | 56 | 6 | **5** |
| 14. | It changed my role in the classroom from passive to active. | 2 | 2 | 50 | 7 | **13** |
| 15. | It helped me discover I am creative in decision-making. | 2 | 2 | 46 | 14 | **19** |
| 16. | It helped me realize my growth/progress in English. | 2 | 2 | 43 | 13 | **23** |
| 17. | It helped me appreciate various opinions. | 2 | 2 | 35 | 21 | **29** |
| 18. | I approached a situation using my personal experience. | 1 | 2 | 51 | 10 | **10** |
| 19. | It presented me with an opportunity to become more open. | 2 | 2 | 32 | 25 | **31** |
| 20. | It changed the way I interact with people. | 2 | 2 | 44 | 14 | **22** |
| 21. | It helped me express myself. | 2 | 3 | 28 | 28 | **33** |
| 22. | It presented me with new facts about the foreign culture. | 1 | 2 | 55 | 7 | **6** |
| 23. | I improved my English communication skills: holding a meeting, negotiating a contract, giving a presentation. | 1 | 1 | 57 | 2 | **3** |
| 24. | It showed reflection helps me understand myself better. | 1 | 1 | 51 | 3 | **11** |
| 25. | I developed non-verbal communication skills. | 2 | 2 | 41 | 13 | **26** |
| 26. | I improved my organisational skills. | 2 | 2 | 35 | 14 | **30** |
| 27. | I improved team-working skills. | 1 | 2 | 48 | 10 | **16** |
| 28. | I improved English language skills. | 2 | 1 | 46 | 11 | **20** |
| 29. | I analysed and solved actual business problems. | 1 | 1 | 59 | 3 | **1** |
| 30. | It presented me with an opportunity to interact in groups. | 1 | 2 | 57 | 9 | **4** |
| 31. | It enhanced my problem-solving skills. | 1 | 2 | 39 | 11 | **28** |
| 32. | It gave me more confidence in ability to conduct business. | 1 | 3 | 31 | 21 | **32** |
| 33. | I applied new skills learned in practice. | 1 | 2 | 43 | 10 | **24** |
| | | | **Sum** | **1525** | **377** | |

Assessment Strongly Agree and Agree are domineering, their sum (1525) is statistically importantly different ($p<0.05$) from assessment Disagree and strongly disagree sum (377). Values coincide in the statement 17 - it helped me appreciate various opinions ($p>0.06$). Values coincide statistically importantly in statement 19: it presented me with an opportunity to become more open, ($p>0.21$) and in statement 32 - it gave me more confidence in ability to conduct business ($p>0.17$). The highest and the lowest value complete coincidence can be observed in statement 21 - it helped me express myself.

## Conclusions

The author of the research applied the transformative case study model in the professional English course in Business Administration studies in order to develop student professional English language competence. After the professional English course, the teacher assessed student professional English competence development, as well as the students participated in self-evaluation of the professional English language competence. Having analysed the results obtained in both assessment types after the course the author has come to the conclusion that the transformative case study model applied in the professional English course in Business Administration studies facilitated the professional English language competence development. Involving the students in the transformative case study modules comprising cases and case-based activities from business settings enhanced the development of critical thinking, collaboration, creativity and innovation, lifelong learning, entrepreneurship, business management, personal management, linguistic, interpersonal, pragmatic and strategic competences, which are integral constituent components of the professional English language competence.

The students were actively involved in the case study modules that provided them with actual business problems and were asked to examine the cases collaboratively from a variety of perspectives, to analyse them critically and to arrive at conclusions taking up the role of decision makers. All the cases involved a question or a problem that was not evident to the students and there was more than one answer possible so the students could suggest any solution of the issue they wanted on the purpose that their ideas were supported by credible arguments, knowledge and information. Taking part in the case study modules the students learned theoretical and practical aspects of the business sphere and they were provided with environment for business administration training.

In the professional English course, the case study modules provided the students with a wide range of opportunities for valuable language practice. All language skills were promoted: reading, writing, speaking and listening tasks were incorporated into case study modules. The students studied the vocabulary, common phrases, grammar rules, and pronunciation. The learners no longer passively memorized new words and grammatical structures, they applied them actively in their communication. Moreover, working on the case study modules required the students to become more self-directed and responsible for their learning.

The students' opinion on the CSM usage in the professional English course is positive. The majority of the students stated that it gave them an opportunity to experience and enjoy more creative and engaging way of learning, helped build confidence in speaking English and find new objectives in learning the foreign language. Most students appreciated the opportunity to approach business problems from various perspectives, develop foreign language interactive skills, apply what they learned in practice, reflect on participation in case study, and increased responsibility for learning.

Case study model's implementation in professional English course is transformative in its nature. It is based on the principle that personal experience is fundamental for the learning process. Providing with a context of real-life business situations enhanced retention of the learners and made them understand the meaning of the tasks better. Thus, learners could easier assimilate their knowledge and apply what they had learned in practice. The learners had an opportunity to reflect on their learning experience. Reflection on participation in the case study modules focused students' attention on their learning processes and the ways they think, which is especially important in personal change, development and growth. The students assessed their learning, skills and abilities, summarized what they had learned, considered their learning strategies and how to improve their learning outcomes. This process of reflection allowed them to become more self-aware and understand themselves on a deeper level. As a result, they could get more from their learning, developed deeper understanding and gained experience in their future profession.

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# The Development of Professional English Language Competence in Business Administration Studies

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**Abstract**: Competence-based education is a perennial goal of higher education caused by economic, political, social and innovative processes which appeared together with the global market economy. This article focuses on the development of professional English language competence in the professional English course in business administration studies in higher education institutions. The aim of the study was to define the term 'professional English language competence for entrepreneurs', select and substantiate its componential contents and develop a model for the development of professional English language competence for entrepreneurs. As a result of the theoretical study it was possible to determine the following components of professional English language competence: transversal competences (comprising critical thinking, collaboration, creativity, innovative thinking and life-long learning competences), business-related competences (comprising business management and personal management competences) and foreign language-related competences (comprising linguistic, interpersonal, strategic and pragmatic competences). The model for the development of student professional English language competence is presented in the article. The created model can be used for professional English language teaching in business administration studies as it observes specific features of entrepreneurship.

**Keywords**: university education, professional English, professional English language competence.

## Introduction

Complex demands of rapidly changing modern world challenge a higher education institution graduate to surpass the basic reproduction of theoretical knowledge. The contemporary potential professional should develop as a mature individual possessing numerous competences in order to deal with various sophisticated mental tasks at the workplace and be capable of self-realisation.

According to the OECD research (OECD, 2005, 3), nowadays educational institutions should prepare students for 'more rapid economic and social change than ever before, for jobs that have not yet been created, to use technologies that have not yet been invented, and to solve social problems that we do not yet know will arise.' Apart from academic knowledge, and skills there is a number of competences which the higher school graduate need to acquire in order to function productively in society and the workplace.

The concept of '21$^{st}$ century competences' has been increasing in attention in Europe in the recent years. The issue of developing and preparing students with 21$^{st}$ century competencies that will enable them to face complex challenges now and in the future is immensely popular and usually debated by innovative educators and reformers. These competences - knowledge, skills, and features that help youth reach their full potential - are supplementary to the significant basic skills of literacy, mathematics, and factual knowledge of other subjects.

Assessing student competence development level in higher education studies B. Briede and L. Peks (2017, 708) use the following indicators: ability to use knowledge, skills and competence in new situations in studies; ability to think critically, systemically and express an opinion; ability to analyse, synthesise and assess information; ability to take decisions and judge on one's own behaviour independently; ability to cooperate with others.

The necessity to update educational systems and keep pace with changing times are connected also to students expectations who are demanding an educational system that is modernized and more connected and relevant to their everyday lives, as well as changes in the labour market and innovative, interconnected, global, rapidly transforming, technology-driven economy that requires competences suited to dynamic economic and social development.

The students of business administration studying the professional English language in a higher education institution require a course that is relevant to their future work and that would enable them to accomplish job duties and responsibilities and achieve professional goals in communication with foreign colleagues and business partners. Thus, the aim of the study was to define the term 'professional English language competence for entrepreneurs', select and substantiate its componential contents and develop a model for the development of professional English language competence for entrepreneurs.

## Methodology

In scientific literature the concept of competence is described as a dynamic combination of knowledge, understanding and abilities (Gonzalez, Wahenaar, 2008); as an 'ability to successfully meet complex demands in a particular context through the mobilisation of psychosocial prerequisites (including cognitive and non-cognitive aspects) and as the internal mental structures in the sense of abilities, dispositions or resources embedded in the individual in interaction with a specific real world task or demand' (Rychen, Salganik, 2001, 44); as 'combinations of those cognitive, motivational, moral, and social skills available to a person that underlie the successful mastery through appropriate understanding and actions of a range of demands, tasks, problems, and goals' (Weinert, 2001, 2433); as a result of a certain level of education; it can be defined by professional education, experience, student's individual abilities, his 'motivated pursuit of continuous self-education, self-development, creative and responsible attitude to the activity (Gershunsky, 1998, 608); as 'more than just the acquisition of knowledge and skills; it involves the mobilisation of knowledge, skills, attitudes and values to meet complex demands' (OECD, 2018, 5).

Within the process of the theoretical analysis of findings on competence-oriented approach in education, competence definition and classification, the concepts *transversal competences, business-related competences* and *foreign language-related competences* were examined. Following is the discussion of these competences.

## Results and Discussion

*Transversal competences (comprising critical thinking, collaboration, creativity, innovative thinking and life-long learning)*

The research in 21st century competencies is mostly associated with growth in the importance of so-called transversal competences as they are regarded as key indicators for competitiveness, employability and success in job performance. Transversal competences are trans-disciplinary and multifunctional. They extend over numerous aspects of human life and comprise knowledge of various academic disciplines.

European Commission consider transversal competences as a key outcome of higher education which will help people deal with today's varied and unpredictable career paths and will help contribute to employability of young people in particular, as well as supporting creation of new business (Employment, Social Affairs…, 2014).

N. Tsankov (2017, 129) states that transversal competences "are basic and guarantee that individuals can handle their future roles". The researcher emphasizes that the development of transversal competences is one of the most important tasks of education as it is "an opportunity to orient the goals of education towards the personality and make it relevant in terms of the individuality of learners are an expected educational outcome and a key factor for the cultivation of all other specific competences".

There is no unified conceptual framework describing transversal competences, each initiative and every author introduces complementary ideas to the concept of the 21st century competences. However, the majority of the researches emphasize the necessity to develop such transversal competences as: critical thinking, collaboration, creativity, innovative thinking and life-long learning. These transversal competences are regarded as very significant not only for the students of business administration but for every higher school graduate in the 21st century regardless of the program they study.

Critical thinking in the 21st century is described by M. Fullan (2013, 23) as the 'ability to design and manage projects, solve problems, and make effective decisions using a variety of tools and resources. It is the ability to think clearly, independently and rationally, and it implies engagement in reflection'.

Collaboration is a vital competence that a person needs to develop in the 21st century as it is necessary for labour market and most jobs nowadays require individuals to work in teams where each team member contributes to a finished product or completed service. Partnership for 21st Century Skills state that mastering collaboration skills requires the ability to work effectively with diverse teams. It also requires the 'ability to be helpful and make necessary compromises to accomplish a common goal' as well as to 'assume shared responsibility for collaborative work' (Partnership for 21st…, 2009, 4)

According to Partnership for 21st Century Skills framework, creativity and innovation are the core competences of the 21st century, as they involve 'the ability to turn ideas into action to meet the needs of a community. The capacity to enhance concepts, ideas, or products to contribute new-to-the-world solutions to complex economic, social, and environmental problems involves leadership, taking risks, independent/unconventional thinking and experimenting with new strategies, techniques, or perspectives, through inquiry research. Entrepreneurial mindsets and skills involve a focus on building and scaling an idea sustainably'. The research underlies the importance of thinking creatively, working creatively with others and implementing innovations (Partnership for 21st…, 2009, 5).

The importance of lifelong learning has also become a popular issue recently. Nowadays, it is required to keep current and constantly upgrade and increase knowledge and skills throughout the lifespan, engagement in lifelong learning is considered as critical to success.

According to M. Laal and P. Salamati (2012, 399), 'In the 21st century, we all need to be lifelong learners. Our world is changing around us in such a frantic pace that if we do not continue to grow and develop; we will soon be left behind. We need to continually keep our skills sharp and up to date so that we have an edge in all we do.'

For the last few years the development of the entrepreneurial capacity of European citizens and organisations has been one of the key policies aims for the European Union. European Commission highlights the significance of entrepreneurial competence development for society and economics as it contributes to job creation and economic growth, is essential for competitiveness and opens up individual personal opportunities (Green Paper…, 2003, 6-7).

To sum up this subsection, transversal competences: critical thinking, collaboration, creativity and innovation, lifelong learning and entrepreneurship, each being a combination of knowledge, skills, character features and attitudes are fundamental in the 21st century and necessary for every person, as they provide an opportunity of effective participation and self-realization in a variety of educational, professional and social contexts. They are prerequisites for well-being, adapting to a changeable and complex world and meeting the demands of today's society, being competitive in the labour market, managing profitable business and developing an enterprise.

Now, when the concept of transversal competences has been discussed, the focus of the paper shifts to the question what competences are necessary to the area of business administration specifically. In this article it is suggested that apart from possessing general transversal competences a business administration student should acquire peculiar, domain-related competences, namely business-related competences.

*Business-related competences (comprising business management and personal management competences)*

Business administration graduates are professionals who can combine different functional areas within enterprises (economics, administration, finance, accounting, human resources, sales and marketing, logistics and production) in private and state sectors. In the present research, it is suggested that the students of business administration should acquire business-related competences comprising of business management and personal management competences.

Business management competence is a prerequisite for success in the world of entrepreneurship. If entrepreneurs lack this competence, they may find the task of setting up and maintaining their businesses more complicated. Developing business management competence is not only providing students with theoretical and practical knowledge of the business domain, higher education should provide students with an opportunity to develop their individual conceptual abilities, skills, attitudes and behaviours that can be practically applied in current, unpredictable, ever-changing and interconnected business environment. These abilities, which are a major factor in innovation, productivity and competitiveness, are all interdependent, and the emphasis is on critical thinking, decision taking, initiative, and communication.

Besides business management, business-related competence comprises also a personal management competence. A personal management competence of the entrepreneur is a set of knowledge, abilities, skills, character features, behaviours, and attitudes that must be mastered by the individual entrepreneur rather than being shared within a group or team. Developing the entrepreneur's personal management competence is highly important in business administration studies since entrepreneurship offers the opportunity to work according to personal goals, interests, values, and beliefs, striving toward their development and realization.

Personal management competence involves cognitive strategies needed to perform business activities and apply the gained knowledge and skills to processing information, to adapting and transforming knowledge, to constructing personal knowledge and judgments. It also assumes the ability to manage and coordinate self-growth, self-realization, personal time, various life and work circumstances, in other words, to play an active role in shaping business environment as well as personal life. If personal management competence is lacking, entrepreneurs may give up even in spite of financial success.

Now, when the content of business-related competences has been outlined, there is a need to include the foreign language-related competences' dimension, as it is important to find out what competences should be developed in the professional English course in business administration studies.

*Foreign language-related competences (comprising linguistic, interpersonal, strategic and pragmatic competences)*

The students enrolling business administration studies in Latvia are school leavers who passed their mandatory centralized exam in English in secondary schools and who already possess basic skills in general English. In business administration studies in the professional English course students should develop the ability to communicate in different business situations, improve interactive, discussion and negotiation skills, extend the previously acquired vocabulary, get an insight into business terminology and develop and improve the required lexis for exchanging information related to business, management, services; consolidate and extend the knowledge of relevant functional grammar structures; and develop business writing skills.

To realize these aims, the business administration student should integrate his transversal and business-related competences with more specific, foreign language-related competences. Therefore, foreign language-related competences serve as a supporting platform for the transversal and business-related competences with the aim to ensure successful functioning in specific intercultural professional communicative situations. In the present research, the foreign language-related competences for the entrepreneur are linguistic, interpersonal, pragmatic and strategic.

Linguistic competence, according to 'Common European Framework of Reference for Languages', (Common European Framework, 2001) includes 'lexical, phonological, syntactical knowledge and skills and other dimensions of language as system, independently of the sociolinguistic value of its variations and the pragmatic functions of its realisations.' Linguistic competence relates not only to the range and quality of knowledge, but also to cognitive organisation and the way this knowledge is stored, as well as its accessibility.

In the area of foreign language learning, as R.A. Fisher (1984) states, 'linguistic competence may be thought of as the learner's knowledge of the structures and vocabulary of the foreign language and his ability to produce and comprehend well-formed sentences'. The student who possesses linguistic competence is equipped with lexical and grammatical knowledge and rules which can be used in communication.

Lexical and grammatical competences are interdependent underlying components of linguistic competence. In this research, linguistic competence for entrepreneurs is defined as the ability to use both sub-competences, lexical and grammatical, in order to recognize and produce words and grammatical structures to use them effectively in a certain professional communicative situation.

Apart from linguistic competence, the students of business administration have to acquire interpersonal competence as the central factor in the business activity is interpersonal communication. OECD present interpersonal competence as the ability to relate well to others, empathy and effective management of emotions. This includes 1) the ability to present ideas and listen to those of others, and an understanding of the dynamics of debate and of following an agenda, 2) the ability to construct tactical or sustainable alliances, 3) the ability to negotiate, and 4) the capacity to make decisions that allow for different shades of opinion (OECD, 2005).

In this article, interpersonal competence is defined as a personal set of knowledge, behaviours, skills and abilities of the business administration student necessary to be able to interact and get along well with others in business environment, and function constructively in groups; it is an effective use of communicative tools and personal resources, native and foreign language, new technologies as well as knowledge, strategies, laws, information, according to requirements of the modern business world in order to solve professional tasks.

The learners of high level of linguistic and interpersonal competence may not necessarily possess equivalent level of pragmatic competence development. As D. Mindt (1996) points out 'Learners who leave their school surroundings, very often find it hard to adapt to the English used by native speakers. Learners who communicate with native speakers constantly have to reshape their linguistic behaviour in those areas of the language which were not taught properly.'

According to P. Garcia (2004), when communicating in the foreign language, more than lexical and grammatical knowledge is necessary; the speakers must be aware about the way the language is used in a specific culture, the norms of that people for communication in a particular context. This is the pragmatics of a language which is the 'ability to use language appropriately according to the communicative situation'.

Therefore, it is also very important for the teacher to be aware of the specific context and communicative situations the students of business administration are supposed to deal with. The development of the professional English language pragmatic competence is paramount in business administration studies as this competence represents a system of rules of what is acceptable and what is not acceptable for the speaker in the language he speaks in entrepreneurial environment.

Another competence the students of the business administration have to acquire in the professional English course is strategic competence. As S. Savignon (2010) points out, misunderstandings and minor or major breakdowns in communication occur in a large variety of communicative situations and the 'effective use of coping strategies is important for communicative competence in all contexts and distinguishes highly effective communicators from those who are less so'.

In the present research strategic competence is defined as a set of knowledge and skills to solve communicative problems, to regulate verbal and non-verbal communicative actions selected for the achievement of communicative goals in business context in specific conditions. Strategic competence could help learners in situations when they are unable to express themselves and carry out their communicative intent, when they are unable to understand what has been said to them, or face problems when interpreting messages, in spite of using a wide range of vocabulary or correct grammar structures.

Strategic competence is composed of a number of different communication strategies which can be used in order to overcome breakdowns in communication, whether the problems are caused by insufficient lexical, grammatical and pragmatic competence. Thus, it is very important that the prospective entrepreneurs acquire strategic competence in business administration studies.

To sum up, linguistic, pragmatic and strategic competences are relevant to any foreign language learner, and especially to the student of business administration, a prospective entrepreneur, whose goal is the achievement of communicative goals in an intercultural business context in specific professional circumstances.

Having analysed and summarized the theoretical research on the concept 'competences of the 21st century entrepreneur', transversal competences, business-related and foreign language-related competences, the author has defined professional English competence for entrepreneurs as follows:

*Professional English language competence for entrepreneurs is an entity of interrelated sub-competences: transversal, business-related and foreign language-related competences, developed in professional*

*English language course in business administration studies which empowers an entrepreneur to complete job responsibilities and achieve professional goals in order to promote business.*

A set of competences based on the research in Latvia and worldwide has been selected and worked out. The author has concluded that entrepreneur's professional English competence consists of eleven competences which are grouped into three interrelated clusters a) a set of transversal competences, b) a set of business-related competences, connected to entrepreneurial professional context and c) a set of foreign language-related competencies, connected to the foreign language professional communication context. The cluster of transversal professional competences comprises critical thinking, collaboration, creativity, life-long learning and entrepreneurship. The cluster of business-related competences includes business management and personal management competences. The cluster of foreign language-related competences consists of linguistic, interpersonal, pragmatic and strategic competences.

The benefits of developing each competence for an entrepreneur are summarized below.

*Critical thinking competence* enables an entrepreneur to think rationally, logically, systematically, analyse issues, distinguish between facts and opinions, make independent judgement, transfer acquired knowledge into new situations in order to promote business.

*Collaboration competence* enables an entrepreneur to work effectively as a member of a team in order to achieve a business benefit; being active, helpful and bringing a personal contribution to the teamwork, compromising and resolving conflicts.

*Creativity and innovation competence* enable an entrepreneur to seek new unobvious perspectives and opportunities in business environment, come up with original ideas to improve business procedures, solve problems in an innovative, non-traditional way, and stay ahead of competitors.

*Lifelong learning competence* provides an entrepreneur with an opportunity of using various opportunities to learn (formal, non-formal, informal education), engage in continuous personal development to achieve self-fulfilment, life enrichment, self-confidence and promotion of business.

*Entrepreneurship competence* enables an entrepreneur to promote a sense of initiative, leadership skills, accountability and ability to impress and persuade people; actively contribute to society, taking responsibility for working with others and making decisions, create a business enterprise.

*Business management competence* provides an entrepreneur with knowledge, conceptual abilities, skills and strategies of various integrated aspects of business domain that can be practically applied in business environment in order to plan, set up, develop, manage and improve a business activity.

*Personal management competence* enables an entrepreneur to manage and coordinate self-growth, self-confidence, self-awareness, self-reflection and personal time to work according to personal goals, interests, values, and beliefs, as playing an active role in promoting business.

*Linguistic competence* provides an entrepreneur with knowledge and ability to use the foreign language vocabulary including general and professional lexicon, as well as theoretical and practical knowledge of grammatical rules, which allows generating correct and meaningful sentences.

*Interpersonal competence* enables an entrepreneur to develop social skills, to be able to interact and get along well with others in business environment, and function constructively in groups.

*Pragmatic competence* enables an entrepreneur to use the foreign language appropriately, understanding what is acceptable and what is not acceptable in various business situations.

*Strategic competence* enables an entrepreneur to develop an ability to use verbal and non-verbal communication strategies to compensate for communication difficulties or limited language knowledge and achieve communicative goals in business context in specific conditions.

Having identified and summarized the major benefits that each of these eleven competences presents for an entrepreneur it is possible to define professional English language competence indicators.

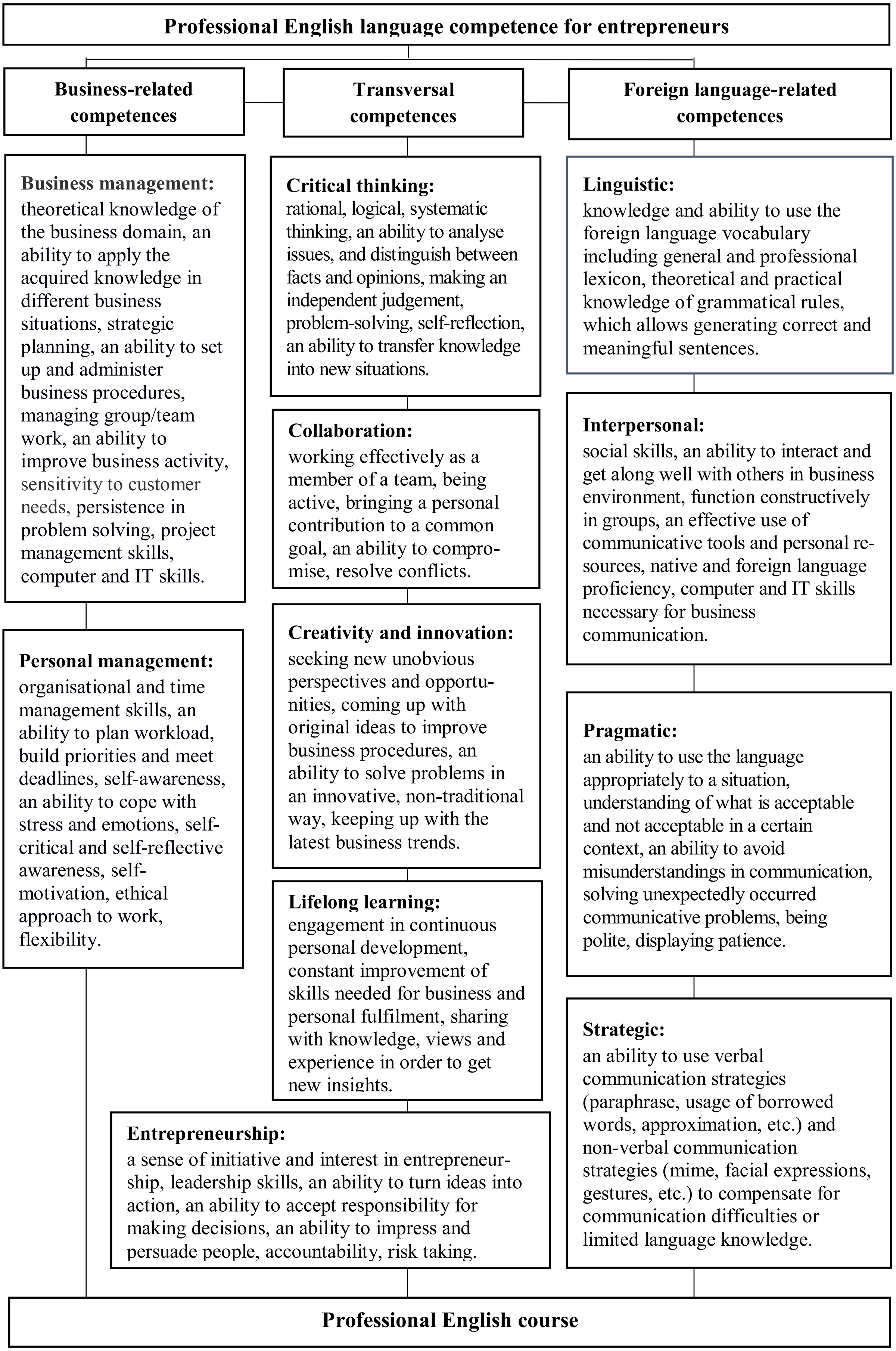


Figure 1. The model of professional English language competence for entrepreneurs in the professional English course.

Constructing the model of professional English language competence, the author of the present research allocates a certain constituent group of abilities, knowledge and skills without which that kind of competence cannot be realized. These eleven competences coincide and interlock, however, together they form an integrated system and should be treated as a whole, the concept of professional English language competence for entrepreneurs. The model of professional English language competence for entrepreneurs developed by the author of this article is presented in Figure 1.

All the model's elements together form a systemic relationship between the process and result: in coherence with the goal and objectives, content and expected outcome of the professional English course.

**Conclusions**

The theoretical analysis of the concepts of transversal, business-related and foreign-language related competences is presented in this article. Professional English language competence for entrepreneurs is defined by the author in this article as an entity of interrelated sub-competences: transversal, business-related and foreign language-related competences, developed in the professional English language course in business administration studies which empowers an entrepreneur to complete job responsibilities and achieve professional goals in order to promote business.

The componential contents of professional English language competence for entrepreneurs are selected, substantiated and depicted in the created model. It is suggested that entrepreneur's professional English competence consists of eleven sub-competences: critical thinking, collaboration, creativity and innovation, life-long learning, entrepreneurship, business management, personal management, linguistic, interpersonal, strategic and pragmatic competences, which are grouped into three clusters: a) a set of transversal competences, b) a set of business-related competences, connected to entrepreneurial professional context and c) a set of foreign language-related competencies, connected to the foreign language professional communication context. The benefits of eleven sub-competences for the students of business administration comprising professional English language competence are summarised.

The created model of the professional English language competence for entrepreneurs (Figure 1) is applicable for the pilot use in business administration studies as it observes the specific features of entrepreneurship.

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# Factors Affecting the Acquisition of Playing the Metallophone in Music Lessons

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**Abstract:** This paper analyses the factors affecting the acquisition of metallophone in primary school music lessons. The aim of the study is to determine the factors that affect the primary school student's performance while playing the metallophone in the classroom and to identify the factors that might be subject to change in case of repeating the performance. To achieve this aim, previous studies which focused on the impact of playing musical instruments on the students' musical, general and intellectual development have been analysed, and an empirical study on the factor affecting the acquisition of playing the metallophone was carried out. The study took place in two general education schools located in different Latvian cities during the period from March 2018 to May 2018, with a sample of 105 students (N=105) in the 3rd-grade. In order to identify the factors that might affect the primary school student while playing the metallophone, each student had to perform two exercises on the metallophone. After each exercise, the student was asked to complete a self-assessment questionnaire. The study identified four key factors determining the acquisition of metallophone, which are reflected in this paper as study dimensions: initiative, self-confidence, self-control, and achievement orientation. The study found that none of the factors that affect the acquisition of metallophone was at a low level. The students' achievement orientation was at a high level, which means that the students were interested in using metallophone to play both exercises. The students have assessed the self-control dimension at a middle level, which means that the self-control skills of the 3rd-grade students still need to be improved by encouraging them to continue practising on the musical instrument. Repeating the same exercise on the metallophone has shown that the students examine the correctness of their performance, are more restrained and more confident that they will achieve the goal. The study result provides an opportunity to better understand the impact of the initiative, self-confidence, self-control, and achievement orientation on the acquisition of playing the metallophone in primary school.

**Keywords:** play the metallophone, music lesson, a primary school student, school education.

## Introduction

Playing musical instruments is one of the musical activities offering for primary school students in the music lesson. Teaching students to play complex, classical musical instruments in general education school could be quite difficult, because individual access for each child is needed, and it takes a lot of time to learn the musical instruments' playing techniques. A study conducted by J. Davidson, R. Faulkner, and G. McPherson emphasize that playing a musical instrument requires the students to have musical abilities, which can be improved *"based on developing a range of complex and interactive cognitive, perceptual and action processes"* (Davidson, Faulkner, McPherson, 2009, 1026). To ensure that playing musical instruments will not cause any difficulties for the primary school students, it is recommended to realize that on the basis of Carl Orff's musical education system. The Orff approach provides a pedagogical model to make it easier to acquire special instruments for an elementary musician – metallophone, xylophone, bells, triangles, as well as wind and percussion instruments. In music lesson, the students play a variety of percussive musical instruments, which are used to produce sound without an identifiable pitch or sound with identifiable pitch. It is more difficult for students to play on instruments that have definite pitch because in this case, it is necessary to play not only the rhythm precisely but also to play the correct sound. All musical instruments (including metallophone) can be played by primary school students regardless of the degree of their musical training, because, according to A. Long, the most important thing in the Orff approach is to promote creativity and to highlight the student's individual achievement (Long, 2013).

No doubt, playing musical instruments develops the student's musical abilities, but it is also important for developing the general abilities of the primary school age children. Several studies have been conducted on the relationship between playing musical instruments and general abilities. For example, K. Zalar, U. Kordes and B. Sicherl Kafol have studied the possibilities of using musical instruments in improving the social competences of primary school children. In the study, the playing of musical instruments took place in groups, which made it possible to conclude that mutual communication in acquiring musical language is more important than the acquisition of the musical instruments' playing techniques (Zalar, Kordes, Sicherl Kafol, 2015). The social interaction and communication skills as a result of playing the musical instruments are highlighted in a study conducted by B. Eren and G. Gül on the integration of Romani children into the education system. It is emphasized that the musician is an integral part of Romani's life therefore it is able to encourage Romani children to attend school (Eren, Gül, 2017). Meanwhile, D. Rose, A.J. Bartoli and P. Heaton carried out an experiment that compared two groups of students aged from seven to nine. One group of students played the musical instruments within the lesson hours provided for in the curriculum, but the other group played the musical instruments for more hours than the curriculum intended. The result showed that the group in which the students spent more hours playing musical instruments provides the opportunity not only to improve the students' musical abilities but also to refine their memory and psychomotor skills (Rose, Bartoli, Heaton, 2015). All forms of the musical activities, including play a musical instrument, develop the neuronal communication between the left and right brain hemispheres (Stoklosa, 2016), promote tolerance, creativity and discipline (Velikova, 2015), as well as improve children's cognitive skills, and encourage them to embrace being open-minded with more ambitious (Hillea, Schuppa, 2013). Playing musical instruments in the classroom influences students' learning achievement in other school subjects. For example, play a musical instrument promotes the acquisition of mathematics (Tezer, Cumhur, Hürsen, 2016) and languages (Lee, Lin, 2015).

Playing musical instruments is also an integral part of special education. Several studies have been conducted on the impact of playing musical instruments on the development of motor and cognitive skills of a child with special needs. The studies provide a deeper understanding of how a child with learning disabilities and behavioural disorders can benefit from playing musical instruments. For example, a study conducted by D. Rose, A.J. Bartoli and P. Heaton found that an eight-year-old boy diagnosed with autism spectrum disorder was able to play notes, improvise and be motivated to work, after playing musical instruments for one year. The only difficulty was to remember the note values (Rose, Bartoli, Heaton, 2018).

The aim of the study is to determine the factors that affect the primary school student's performance while playing the metallophone in the classroom, as well as to identify the factors that might be subject to change in case of repeating the performance.

## Methodology

The participants were 105 (N=105) primary school students in grade 3. The study was conducted within the framework of the music lesson and took place in two X-town general education schools from March 2018 to May 2018.

The following research questions will be answered by the study:

- What factors affect the 3rd-grade students' acquisition of playing the metallophone?
- Which of the factors affecting the acquisition of playing the metallophone are subject to change in case of repeating the exercise?

To answer the questions raised in the study, the 3rd-grade students were given two exercises to be played on the metallophone. In the first exercise, each student had to play metro-rhythmically on the metallophone each measure of the first note for the Latvian folk song "Slauk` māmiņa istabiņu" (Mama sweeps the room). Each student performed the following sequence of notes: do, sol, do`, sol, sol, sol, sol, do, corresponding to one of the C-major three sounds. The second exercise, which was performed after a week, maintained the features of the previous exercise and included new requirements. Just like in the first exercise, the students had to play metro-rhythmically on the metallophone each measure of the first note for the Latvian folk song "Āvu, āvu baltas kājas" (I put on shoes and white stockings). Only in this time, playing the metallophone was not limited with the C-major three sounds, but each student had to perform metro-rhythmically the following sequence of notes: fa, mi, la, sol, la, sol, fa, fa.

After the first and the second exercise, the students had to complete a self-assessment questionnaire to identify the factors affecting the acquisition of playing the metallophone. The questionnaire consisted of 20 statements that should be assessed by each student using a 4-point Likert scale. The time to complete the questionnaire was not limited and all the responses collected were anonymous. For data processing, the response variants were recoded into digits: 4 – agree, 3 – partially agree, 2 – partially disagree and 1 – disagree. The 4-point Likert scale was converted to three levels where the arithmetic mean from 1 to 2 corresponds to a low level, from 2.01 to 3.00 corresponds to a middle level and from 3.01 to 4 corresponds to a high level.

The Cronbach's Alpha coefficient was calculated to determine the internal consistency reliability and the validity of the questionnaire statements. The factor analysis was used to identify the structure of the relationship between the statements and to determine the number of factors to be extracted. As a result of the factor analysis, the study identified four complex factors affecting the acquisition of playing the metallophone, which are reflected in this paper as study dimensions. The first dimension determined the students' initiative while performing the given exercise. The second dimension examined the students' self-confidence while playing the metallophone. The third dimension identified the students' self-control in using the metallophone. The fourth dimension, in turn, determined the students' achievement orientation in the process of acquiring the metallophone. Each study dimension is characterized by five statements.

The Bivariate (Pearson) correlation analysis was used to examine the reliability of the responses. The correlation coefficient has statistically significant sigma of 0.01 and 0.05. The arithmetic mean (M), the standard deviation (SD), the standard deviation error (SE) and the median (ME) were calculated for each statement. The arithmetic mean (M) was used because there is a directly proportional relationship between the variables included in the study. The standard deviation (SD) confirms the typicality of the arithmetic mean and indicates the level of variation, which in turn allows the study to compare and generalise the results obtained, as well as to determine the benefits of one variable in relation to another. The median (ME) describes the significance of the variable, and comparing it with the arithmetic mean (M) determines whether the data distribution in the study is symmetric or asymmetric.

In order to determine which of the factors that affect the acquisition of playing the metallophone could be subject to change in the case of repeating the exercise, the ANOVA was used. The Statistical Package for Social Science (SPSS) version 22 was used to analyse the collected data.

**Results and Discussion**

The internal consistency reliability and validity of the study data is sufficiently high (a=.817), which gives an opportunity to analyse each one of the study dimensions. The lowest mean score for one of the statements was M=2.20 and the highest mean score was M=3.83, which allowed the study to talk only about a middle or high level of the factors affecting the acquisition of playing the metallophone.

The initiative is one of the key factors affecting the acquisition of playing the metallophone. Table 1 shows five statements describing the student's initiative in the process of acquiring the metallophone.

Table 1

**The student' initiative during the acquisition of playing the metallophone**

| Statements | | M | SD | SE | ME |
|---|---|---|---|---|---|
| 1. | I performed the exercise relentlessly | 3.20 | .892 | .087 | 3.00 |
| 2. | I practised it over and over again | 3.58 | .793 | .077 | 4.00 |
| 3. | I started the exercise at once | 3.56 | .897 | .087 | 4.00 |
| 4. | I solved the problem encountered | 2.69 | 1.279 | .124 | 3.00 |
| 5. | I wanted to reach my goal | 3.80 | .641 | .062 | 3.00 |

The initiative is an introductory act or steps to begin something, it helps the student to reach the goal, to continue practising on a musical instrument and to be able to tackle and solve the problems encountered while playing an instrument. The initiative is characterized by the fact that the student starts performing the exercise immediately, not after a period of time.

The students assessed all the statements that characterize their initiative during the acquisition process of playing the metallophone at a high level except one of the statements that determines whether the students have tried to solve the problems that have been arisen while they performing the exercise. This statement assessed at a middle level. Almost all students agree that they wanted to reach their goal (M=3.80; SD=.641), began to perform both exercises without unnecessary delay (M=3.56; SD=.897) and continued to practice on the metallophone over and over again (M=3.58; SD=.793). The study found that the statement *"I wanted to reach the goal"* has not got a uniform distribution of the collected data. This is proved by the difference between the arithmetic mean (M=3.80) and the median (ME=3.00). This means that among the group of the respondents were students, who had a very strong willingness to play the both given exercises correctly, but the majority of them were not sufficiently motivated to achieve the goal. If the student is motivated to achieve the goal, then he uses the time allocated for performing the exercises effectively ($r=0.493$; $p<0.01$), wants to complete the exercise well ($r=0.460$; $p<0.01$), is interested in the exercises ($r=0.339$; $p<0.01$), focuses only on performing the exercises and does not deal with other things ($r=0.260$; $p<0.01$) and is able to practice on the metallophone over and over again ($r=0.325$; $p<0.01$). To be motivated to play on the metallophone and at the same time to achieve the goal, the student needs to be certain about his abilities. ($r=0.237$; $p<0.05$).

Most students partially agree or even partially disagree with the statement that they have tried to solve the problems encountered during playing the metallophone (M=2.69; SD=1.279). To enable the students to deal with the problems until they solve it, it is important not only having the needed knowledge and skills to solve this problem, but also the initiative and the ability to act at a concrete situation. The initiative is expressed through the student's willingness to do more than it is required to perform the exercise. Solving the problems that were encountered while playing the metallophone is associated with the persistence ($r=0.264$; $p<0.01$), and it is also essential that the given exercise should not be difficult for the student ($r=0.341$; $p<0.01$).

The initiative could be stimulated by the joy of playing musical instrument therefore a suitable environment should be created in the classroom in order to provide the opportunity for each student, according to their individual abilities, to play a musical instrument with pleasure. Some researchers believe that not only the environment but also gender determines whether the student will choose to play one or another musical instrument. A study conducted by E.R. Wrape, A.L. Dittloff and J.L. Callahan found that gender stereotypes regarding the choice to play a musical instrument are still current issue that music teachers often face (Wrape, Dittloff, Callahan, 2016). It is not strange because it is considered that small children with very little experience have already their own opinion about which musical instrument is more suitable for women and which for men. N. Marshall and K. Shibazaki have come to the conclusion that the sound and visual image generated by the musical instrument have a strong association with the gender which in turn make a big impact on young children aged 3-4 (Marshall, Shibazaki, 2013). In addition, a study by J. Byo on which musical instruments the children usually choose to play in the third grade, concluded that the choice is determined by how the teacher introduces the musical instrument to the young children for the first time (Byo, 1991).

The second dimension determined the students' self-confidence while playing the metallophone. The opposite of self-confidence is unsureness. Self-confidence is a belief that the exercise will be performed successfully. Self-confidence is about knowing your own abilities. The Russian researcher I. M. Feygenberg thinks that self-confidence is associated with the level of competence (Feygenberg, 2014). Table 2 shows the statements that describe the students' self-confidence during the acquisition of playing the metallophone.

Table 2

**The students' self-confidence during the acquisition of playing the metallophone**

| Statements | | M | SD | SE | ME |
|---|---|---|---|---|---|
| 1. | I was sure that I was going to succeed | 3.29 | .960 | .093 | 4.00 |
| 2. | The exercise was not difficult | 2.60 | 1.156 | .112 | 3.00 |
| 3. | I learned from the others | 2.81 | 1.238 | .120 | 3.00 |
| 4. | I performed the exercise convincingly | 3.14 | .994 | .097 | 3.00 |
| 5. | If I failed, then it was my own fault | 3.56 | .911 | .089 | 4.00 |

The students assessed three statements that describing their self-confidence at a high level and two statements at a middle level (table 2). Most students agree that they were sure about performing the exercise correctly (M=3.29; SD=.960). The study results give an opportunity to conclude that the statement *"I was sure that I was going to succeed"* does not have a uniform data distribution because the arithmetic mean (M=3.29) is lower than the median (ME=4.00). This means that part of students has a low confidence that they will be able to perform the exercise on the metallophone correctly. The student who is confident that he will perform the exercise successfully uses the time allocated for performing the exercise effectively ($r=0.255$; $p<0.01$), checks the correctness of the performance ($r=0.288$; $p<0.01$) and focuses only on performing the current exercise ($r=0.399$; $p<0.01$). The students are sure that they will succeed in completing the exercise if it matches their level of ability ($r=0.313$; $p<0.01$). The confidence that the exercise can be performed correctly provides a peace of mind for the child ($r=0.287$; $p<0.01$) and helps him to stay calm if problems or difficult situations have been arisen ($r=0.368$; $p<0.01$).

The majority of students partially agree or partially disagree that the exercises they had to play on the metallophone were not difficult for them. The students felt that the exercise was difficult for them to complete. At the same time, learning from other classmates as one of the ways to overcome the difficulties have been used by relatively few students ($M=2.81$; $SD=1.238$). If the exercise is not difficult for the student, then he begins to do it immediately ($r=0.302$; $p<0.01$), performs it relentlessly ($r=0.263$; $p<0.01$), is sure that he will succeed ($r=0.313$; $p<0.01$), is able to check the correctness of the performance ($r=0.363$; $p<0.01$), wants to perform the exercise correctly ($r=0.300$; $p<0.01$) and is interested in solving the problems that have arisen ($r=0.341$; $p<0.01$).

Confident people are characterized by taking responsibility for their failures and mistakes. Nearly all the students agree with the statement that *“if I failed, then it was my own fault*” ($M=3.56$; $SD=.911$). The students take responsibility for his failures or mistakes if he is interested in what he is doing ($r=0.258$; $p<0.01$).

The third study dimension identified the students’ self-control in the acquisition process of playing the metallophone. Self-control is essential for the student to control his or her emotions, and to prevent a flood of negative feelings or destructive behaviour if a concrete activity is failed. Table 3 shows five statements that describe the students’ self-control during the acquisition of playing the metallophone.

Table 3

**The students’ self-control during the acquisition of playing the metallophone**

| Statements | | M | SD | SE | ME |
|---|---|---|---|---|---|
| 1. | I did not care | 2.21 | 1.270 | .124 | 3.00 |
| 2. | I did not act unacceptably | 2.91 | 1.286 | .125 | 4.00 |
| 3. | I did not lose control | 2.92 | 1.268 | .123 | 4.00 |
| 4. | I was calm | 2.71 | 1.276 | .124 | 3.00 |
| 5. | I did not disturb the others | 3.42 | 1.054 | .102 | 4.00 |

Self-control helps to maintain adequate work performance in a stressful situation. Self-control is characterized by the ability to stay calm under pressure and to maintain a sense of control, as well as preventing any unacceptable behaviour in the class which could disturb the other classmates while performing the given exercises. Four statements of five that indicates the level of self-control during the acquisition of playing the metallophone have been assessed by the students at a middle level, and only one statement that determined whether the students disturb the other classmates while performing the exercise has been assessed at a high level.

Most students believed that they were worried while playing on the metallophone ($M=2.21$; $SD=1.27$). The worry was about losing their control ($r=0.380$; $p<0.01$), as a result of that it was difficult for students to maintain peace as well ($r=0.650$; $p<0.01$). Losing control is not always mean that the students act in an unacceptable manner dealing with a concrete situation ($M=2.91$; $SD=1.286$). However, the study found that the arithmetic mean score was significantly lower than the median score ($M=2.91$.; $ME=4.00$), which gives the opportunity to conclude that on the one hand, there were some students who reacted clearly inadequate to the stressful situation created during playing the metallophone, but on the other hand, there were students who responded adequately, even if they were worried. Losing control is associated with worry ($r=0.380$; $p<0.01$) and is largely described by the statements included in the self-confidence dimension. Namely, the students do not lose their control if they have the confidence that they will able to perform the exercise correctly ($r=0.287$; $p<0.01$), as well as if the exercise is not difficult for them ($r=0.386$; $p<0.01$). The students will be calm if they are interested in the activity they dealing with in the classroom ($r=0.260$; $p<0.01$).

The majority of the students agree that they do not disturb the other classmates during playing the metallophone (M=3.42; SE=1.054). The students will not disturb each other, if they are interested in the given exercise (r=0.260; p<0.01), are relentlessly (r=0.297; p<0.01) and begin to perform the exercise at once (r=0.261; p<0.01).

J.V. Davidson, S.E. Pitts and J. Salgado-Correia emphasize that the learning process of playing a musical instrument is individual. Even the student who does not achieve a high level of playing a musical instrument should spend a lot of time to learn how to play individually. That requires the student to have a high level of self-sufficiency and ability to be self-reflective (Davidson, Pitts, Salgado-Correia, 2001).

The fourth study dimension determined the students' achievement orientation during the process of acquiring the metallophone. The achievement orientation can be expressed as an interest in doing something well. The achievement-oriented student uses the time allocated for performing the exercise effectively, examines the quality of the performance and focuses only on performing the exercise. Table 4 shows the students' achievement orientation in acquiring the metallophone.

Table 4

**The students' achievement orientation during the acquisition of playing the metallophone**

| Statements | | M | SD | SE | ME |
|---|---|---|---|---|---|
| 1. | I used the time allocated for the exercise effectively | 3.54 | .832 | .0812 | 4.00 |
| 2. | I checked the correctness of the exercise | 3.37 | .922 | .090 | 4.00 |
| 3. | I wanted to perform the exercise well | 3.83 | .573 | .056 | 4.00 |
| 4. | I did the exercise with interest | 3.33 | 1.015 | .099 | 4.00 |
| 5. | I focused only on performing the exercise | 3.52 | .748 | .073 | 4.00 |

Five statements that describe the students' achievement orientation in the acquisition of playing the metallophone have been assessed at a high level. The students' achievement orientation is closely related to their initiative. Almost all students fully agree that they used the time allocated for performing the exercise effectively (M=3.54; SD=.832) and wanted to complete the exercise well (M=3.83; SE=.573). If the students use the time allocated for the exercise effectively and want to perform it correctly, then they begin to perform it immediately without any hesitation (r=0.321; p<0.01), do it relentlessly (r=0.344; p<0.01), repeat it constantly (r=0.333; p<0.01) and want to achieve the goal (r=0.493; p<0.01). The student's willingness to check the correctness of the performance is related to the confidence of performing the given exercise on the metallophone successfully (r=0.288; p<0.01). The majority of students agree or partially agree that the exercises on the metallophone were performed with interest (M=3.33; SD=1.015). The students play the metallophone with interest if they want to learn to play well on it (r=0.407; p<0.01), if they are motivated to reach their goal (r=0.339; p<0.01) and if playing the metallophone does not cause any difficulties for them (r=0.300; p<0.01). The student who is interested in playing the metallophone is calmer than the one who does not have any degree of interest to use the metallophone (r=0.260; p<0.01), he is a lot more confident of what he is doing (r=0.286; p<0.01) and does not disturb the other classmates while playing the metallophone (r=0.260; p<0.01).

L.M. Spencer and S.M. Spencer note that a high level of achievement orientation may be also for children whose status and influence in the classroom are low (Spencer, Spencer, 1993). The role of a concrete student for the classmates determines his status and influence.

The second study question was to determine which of the factors affecting the acquisition of playing the metallophone are subject to change if repeating the performance is needed. The study found that in case of repeating the same exercise on the metallophone, the students were more likely to check the correctness of the performance (F=4.804; sig.=.031), they have got more control (F=5.083; sig.=.027) and they are more confident that the performance will be completed correctly (F=4.550; sig.=.036). Repeating a similar exercise on the metallophone is connected with three of the study dimensions: the achievement orientation, the self-confidence and the self-control.

## Conclusions

The study found that the acquisition of playing the metallophone is determined by several factors, firstly, the level of initiative the student was showing while playing the metallophone, secondly, whether the student is confident that he is going to succeed in acquiring the metallophone, thirdly, whether the student is able to control the quality of playing the metallophone and fourthly, whether the student is achievement-oriented.

The student's initiative is closely associated with the willingness to achieve the goals. At the same time, in order to accomplish the goal of acquiring the metallophone, the student must keep practising on this musical instrument relentlessly, should be able to deal with any problems or difficult situations and be motivated to start the given exercise immediately. The study found that the primary school students have insufficient skills and knowledge to deal with the problems that could arise while playing a musical instrument which in turn reduces their motivation to complete the exercise in good quality. The teachers need to focus on improving the students' ability to apply problem-solving skills when they faced difficult situations or problems while playing a musical instrument in the classroom. The problem solving usually involved the following steps: the students learn to generate potential solutions for their problem, evaluate the solutions presented and select the appropriate solution to improve the metallophone playing skills.

The student needs to be confident enough to be able to play the metallophone successfully. Self-confidence is the assurance in your own abilities and knowledge. Playing the metallophone requires the students not only to have a sense of rhythm but also to be careful and be able to focus on the current activity. Therefore, it is important to understand how we can help the student evaluate his musical and general abilities. First of all, it is necessary to pay attention to the quality of the performance, which in turn provides the opportunity to recognize the children musical abilities and, at the same time, increases their self-confidence. Secondly, the children need to learn the way which helps them to concentrate in the classroom and to focus only on the current activity.

Self-control is also one of the factors affecting the quality of the acquisition of playing the metallophone. It is largely related not to competences but to a current situation. Self-control can be learned. In order to develop the self-control skills, the primary school students should acquire the skills to identify the goals to be reached precisely, as well as to build the strategies for monitoring and reflecting the achieved results. The student's self-control will be better if he plays the metallophone for personal reasons and if the playing gives him pleasure.

All the statements describing the achievement orientation have been assessed by the students at a high level. This means that the students wanted to perform both exercises on the metallophone in a good quality. The students who have not got any important role among their classmates could also want to perform the exercise well, focus only on the performance and use the time allocated for performing the exercise effectively.

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# Enhancing University Students' Critical Thinking via Teaching Economics-Related Disciplines

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**Abstract:** The twenty-first century introduces new demands to the higher education. It goes without saying that students should be professional and competitive at labour market. With information on the rise globally, each profession embraces various information-related skills and competencies. Thus, critical thinking plays an important role in the educational process. The study examines the role of critical thinking and the possibilities of economics-related disciplines in enhancing university students' critical thinking. As there is a variety of definitions and understandings of critical thinking, the author introduces the concept of critical thinking, based on different approaches, defines critical thinking and skills it includes. The author conducted a survey covering students of economics from Russian universities. The aim of the survey was to find out university bachelor students' perceptions of critical thinking and their evaluation of critical thinking development in courses of disciplines. For this purpose, the author used two questionnaires. The participation in the questionnaires was anonymous and voluntary. Comparative analysis method was applied to analyse the results. The findings support the hypothesis to encourage students' critical thinking not only special critical thinking courses are important, but other disciplines as well. Teaching critical thinking along with professional skills (via economics-related disciplines) may give a significant educational result. To stimulate students' critical thinking, more attention should be paid to active teaching methods (discussions, case studies, simulations, projects, team-work, Internet based assignments, problem solving). The aim of the study is to discover the possibilities of enhancing students' critical thinking via different methods of teaching economics-related disciplines.

**Keywords**: critical thinking, cognitive skills, soft skills, education process, economics-related disciplines.

## Introduction

Information society, knowledge economy and technological change have strongly transformed the labour market and modified basic demands to the higher education. New hires fresh from universities often fail to comply with the labour market requirements. One of the major tasks of modern education is to prepare students for their future professional and social life, to give them necessary employability skills which may help them to adopt in this changing world and to be successful at their workplaces. Universities usually concentrate on professional skills, but employability skills include not only professional skills but soft skills as well. According to L. Raitskaya, E. Tikhonova and M. Balykhin soft skills cover: (1) social skills (communication skills, interpersonal skills, team work, leadership, social intelligence, responsibility, ethic and courtesy); (2) cognitive skills (critical thinking, problem solving, novelty thinking, cognitive load management, learning skills, information skills, self-management); (3) personality (i.e. personal attributes and qualities), and emotional intelligence (emotional intelligence, integrity, optimism, flexibility, creativity, motivation, empathy) (Raitskaya, Tikhonova, Balykhin, 2018).

Thus, critical thinking forms an integral part of cognitive skills and soft skills on the whole. Information loads and low quality of the information sometimes make the process of decision taking very complicated. Critical thinking skills help the students not only to absorb information more rapidly and effectively but also make them able to use it in the most efficient way.

The concept of critical thinking has been the subject of research and discussion for years. Early works on critical thinking generally focused on the definitions (Dewey, 1933; Ennis, 1962). The concept of critical thinking gained much interest in 1980s (Brookfield, 1987; Lipman, 1988) and later on (Facione, 1990; Menssen, 1993). But the understanding of critical thinking is still bizarre. One of the first definitions is that by J. Dewey (Dewey, 1933, 118) who looked upon it as "active persistent and careful consideration of a belief or supposed form of knowledge in light of the grounds that support it, and the further conclusions to which it tends." R.F. Saade, D. Morin and J.D. Thomas determine it as a process: "critical thinking is the process of analysis, valuation, interference, and interpretation of resources and activities"

(Saade, Morin, Thomas, 2012, 1609). R. Paul considers it as: "the ability and disposition to critically evaluate beliefs, their underlying assumptions, and the worldviews in which they are embedded (Paul, 1995, 46). The Center for Critical Thinking defines it as follows: "Critical thinking is the intellectually disciplines process of actively and skilfully conceptualizing, applying, analysing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action" (Saade, Morin, Thomas, 2012, 1609).

Reviewing these various definitions, considerations and conditions, one can conclude that the debate still continues. In this article short and simple definitions of critical thinking are preferred, such as by S. Novella (Novella, 2012, 10): "Applying systematic logic and doubt to any claim or belief; thinking carefully and rigorously". In this article, we suggest that we should stick to this very definition.

Besides the definition of critical thinking itself the debate concerns the core skills included in critical thinking. R.H. Ennis (Ennis, 1987) focused on the ability to reflect sceptically and the ability to think in a reasoned way. S. Cottrell (Cottrell, 2005, 4) points out that critical thinking involve the development of a range of ancillary skills (observation, analysis, reasoning, judgement, decision-making, persuasion). K. Larsson asks "Is critical thinking just a set of skills or does it have dispositional aspects as well? Is creativity an important element or not and should emotions, intuition and societal change be brought into the definition?" (Larsson, 2017, 32). One of the strongest authorities in the field P. Facione (Facione, 1990), taking into consideration the results of The Delphi Report, determined the basic critical-thinking skills as follows: analysis, interpretation, self-regulation, inference, explanation, evaluation. Later special attention was paid to three core skills: analysis, inference, evaluation, since they were strongly positively correlated: analysis and inference ($r$=.36, $p$<.001), analysis and evaluation ($r$=.40, $p$<.001), evaluation and inference ($r$=.48, $p$<.001) (Dwyer, Hogan, Stewart, 2014, 47).

There is still certain debate if critical thinking must be taught through a critical thinking course focused generally on critical thinking (Royalty, 1995) or it may be taught in other courses focused on some professional skills (Cargas, Williams, Rosenberg, 2017). The author doesn't deny the importance of special critical thinking courses, but critical thinking must be also developed via other disciplines. Teaching critical thinking along with professional skills has a significant educational result.

The purpose of this paper is to draw attention to the critical thinking within the soft skills framework as an important part of education process in teaching economics-related disciplines. Both traditional teaching methods and innovative teaching methods may be implemented to enhance students' critical thinking, but there should be enough space for students' active involvement in the process. So, more attention should be paid to interactive components in learning courses (discussions, case studies, simulations (Bell, Loon, 2015), projects, team-work, Internet based assignments, problem solving). Individual characteristics and external factors may to some extent influence the use of critical thinking skills. D. Kahneman shows many cases of irrational thinking and behavior (Kahneman, 2011). So, the students must be taught to think critically in complicated situations.

Taking into consideration the scarcity of publications on critical thinking in teaching economic-related disciplines, this research provides the following contributions. At a micro level it determines the best methods and forms that can be implemented to stimulate critical thinking via teaching economic-related disciplines. At a macro level, it suggests new approaches in the sphere of higher education.

The author aims to consider the above said problems and set the following research questions:

- what are the bachelor students' perceptions of critical thinking?
- what teaching/learning activities in economics-related disciplines contribute most to fostering students' critical thinking skills?

**Methodology**

Two questionnaires to find out the perceptions of critical thinking and evaluation of critical thinking development in courses by university bachelor students were worked out. Comparative analysis method was applied to analyse the results.

Participants. 142 university bachelor students participated in questionnaires on perceptions of critical thinking and evaluation of critical thinking development in courses by university students in Russia, including 85 female students (59.9 %) and 57 male students (40.1 %) aged 18-21 years old. All students study at universities in Russia.

Materials

(1) The reviewed literature included studies containing definitions of critical thinking and classifications of critical thinking skills that were carried out and published in scientific journals since the 1930s. All articles are indexed with Scopus or Web of Science databases.

(2) Two questionnaires were worked out and included the following questions.

Questionnaire 1: Students' Perceptions of Critical Thinking.

Question 1 What is critical thinking?
Question 2 What is critical thinking aimed at?
Question 3 What strong points do you see in developed critical thinking?
Question 4 When do you require critical thinking most?

Situations:
- everyday situations;
- studies/education;
- career;
- decision-making;
- information search;
- others.

Multiple answers are possible.

Question 5 *Which of the following skills and attributes are part of critical thinking:*
- skill of analysis;
- attribute of integrity;
- skill of team work;
- skill of interpretation;
- skill of self-regulation;
- skill of motivation;
- skill of inference;
- skill of explanation;
- attribute of empathy;
- skill of evaluation?

Multiple answers are possible.

Questionnaire 2: Students' Evaluation of Critical Thinking Development in Courses.

Question 1 *Which courses contribute to critical thinking most:*
- microeconomics;
- macroeconomics;
- applied economics;
- history of world & national economics;
- financial economics?

Multiple answers are possible.

Question 2 *Which of the learning activities do you think contribute more to fostering critical thinking skills:*
- cases;
- problem-solving;
- lectures;
- reading for seminars and exams;
- brainstorming;
- others?

Multiple answers are possible.

Question 3 *Which of your skills do you think were notably improved:*
- skill of analysis;
- skill of interpretation;
- skill of self-regulation;

- skill if inference;
- skill of explanation;
- skill of evaluation?

Multiple answers are possible.

Procedure included a self-selected convenience sampling of students in partner universities. Participation in the questionnaires was anonymous and voluntary.

**Results and Discussion**

The replies of the students show the following.

**Questionnaire 1: Students' Perceptions of Critical Thinking.**

Question 1 (*What is critical thinking?*) had different answers. Ninety-two students (64.8 %) gave various definitions which may broadly be classified as:

(1) 43 students (30.3 %) defined it as skills pertaining to information valuation and analysis;
(2) 16 students (11.3 %) as skills (filters) to sift information for various purposes;
(3) 15 students (10.6 %) as abilities connected with processing information or/and knowledge;
(4) 9 students (6.3 %) as skills necessary to build up knowledge and competencies;
(5) 9 students (6.3 %) as information skills.

Others' replies did not exceed 2-3. They included such statements and definitions as skills of analysis (3 students, 2.1 %); skills and attributes relating to new information (2 students, 1.4 %); skills connected with decision-making (2 students, 1.4 %); cognitive skills (3 students, 2.1 %) and others.7 students (4.9 %) wrote in answer to this question 'no idea'.

Question 2 (*What is critical thinking aimed at?*) brought the following spread of answers:

(1) information evaluation (68 students, 47.9 %);
(2) knowledge formation (13 students, 9.2 %);
(3) analysis of information (24 students, 16.9 %).

As many as 12 students (8.5 %) considered critical thinking as evaluative (or other synonyms) thinking.

Question 3 (*What strong points do you see in developed critical thinking?*) gave three groups of replies prevailed:

(1) success in career and job promotion (41 student, 28.9 %);
(2) fostering other professional competencies (32 students, 22.5 %);
(3) the most efficient/necessary/essential educational skill (25 students, 17.6 %).

Among other variants were found those connected with information processing, evaluation, knowledge building (12 students, 8.45 %).

Question 4 (*When do you require critical thinking most?*) brought the following answers: everyday situations (46 students), studies/education (81 student), career (95 students), decision-making (89 students), information search (41 student). Thus, most popular answers covered career (95 students), decision-making (89 students). In addition, the students gave random answers including analytics; learning new information; evaluation of information.

Question 5 (*Which of the following are critical thinking skills?*) gave the following answers: skill of analysis (138 students), attribute of integrity (21 students), skill of team work (32 students), skill of interpretation (98 students), skill of self-regulation (78 students), skill of motivation (43 students), skill of inference (123 students), attribute of explanation (108 students), attribute of empathy (8 students), skill of evaluation (126 students).

**Questionnaire 2: Students' Evaluation of Critical Thinking Development in Courses.**

Question 1 (*Which courses contribute to critical thinking most?*) showed the dominance of macroeconomics (138 students) and applied economics (131 student), followed be microeconomics (114 students), financial economics (119 students) and history of world and national economics (65 students).

Question 2 (*Which of the learning activities do you think contribute more to fostering critical thinking skills?*) gave the following results: cases (110 students), problem-solving (118 students), lectures (78 students), reading for seminars and exams (86 students), brainstorming (101 student). Among other answers (14 students) there are writing on professional themes in the courses of economics related disciplines (essays, analysis, thesis), searching for information on the Internet.

Question 3 (*Which of your skills do you think were notably improved?*) brought the answers: skill of analysis (132 students), skill of interpretation (90 students), skill of self-regulation (84 students), skill if inference (103 students), skill of explanation (110 students), skill of evaluation (139 students).

## Conclusions

With the employment of designed questionnaires and computer-based tests, this study explored students' perceptions of critical thinking and students' valuation of critical thinking development in courses.

The author concludes that in spite of broad variety of definitions the students tended to define critical thinking as skills pertaining to information valuation and analysis. They expect them to contribute to success in career and job promotion, to foster other professional competencies and to be the most essential educational skill. They require critical thinking in everyday situations, education, career, decision-making, information search. The students look upon skill of analysis, skill of evaluation, skill of inference, attribute of explanation, skill of interpretation as typical critical thinking skills.

Macroeconomics, applied economics, and microeconomics were singled out as economic disciplines which contribute most in nurturing students' critical thinking skills. Among learning activities contributing to fostering critical thinking skills the students mentioned problem-solving, cases, brainstorming, and reading for seminars and exams, lectures. They also consider skill of evaluation, skill of analysis and skill of explanation to be notably improved.

It was proved that critical thinking is one of the most important educational goals. Skills of critical thinking are necessary for the careers' students are being prepared for. The main goal of teaching economics-related disciplines is to enhance students' critical thinking via more interactive components in courses, and more active learning methods such as problem-solving, case studies, brainstorming, discussions.

The teaching community is just beginning to take cognizance of the necessity of enhancing university students' critical thinking via teaching economics related disciplines and much work ahead. More studies are strongly desirable in this scope, focusing on diverse aspects of the problem field.

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# A Case of Competence Building - International Student Scientific Mathematics Olympiad

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**Abstract**: In the last decade, the concept of competence has been developed and competence-based learning has become the dominant educational approach in Latvia. It poses new challenge also for mathematics studies - to provide opportunities for students to achieve competence and acquire knowledge, values and skills needed for successful professional and fulfilled personal life. The aim of the article is to give insight into International Student Scientific Mathematics Olympiad (ISSMO), organized by Latvia University of Life Sciences and Technologies in order to contribute to the development of students' mathematical and social competence such as effectively communicate with others, cooperatively work in teams. This article describes the methodology of the International Student Scientific Mathematics Olympiad organization, summarizes the experience and analyses the results of the ISSMO of two largest technical universities in Latvia and among so-called Agricultural Universities in Baltic States in 2018. Olympiad is focused on application of mathematics to real-life situations. The results show that solving practical problems requiring the use of other study subjects presents difficulties for all students.

**Keywords**: competence, competence-based education, International Mathematics Olympiad, university education.

## Introduction

UNESCO Report (Learning..., 1996) indicated that education to be organized according to the four basic principles of educational pillars: learn to know - to develop critical thinking, learn methods and instruments to understand world; learn to do - knowledge, values and skills to be able to use the acquired knowledge in everyday life, etc.; learn to live together, to attend and participate in all human activities along with other people; learn to be - knowledge, values and skills for well-being, to develop personality, to make independent decisions, to take responsibility, etc. It poses new challenge also for mathematics studies - promote each individual's opportunities to acquire knowledge, values and skills needed for participation in decision-making as well as knowledge, skills and values to work and live in a rapidly changing world. According to O. Yusupova and L. Ibyatova (2018), proficiency in mathematics is as an essential precursor to success in modern society necessary to ensure highly qualified specialists for the knowledge-based, skill and technology-intensive industries (Yusupova, Ibyatova, 2018).

Throughout human history mathematics plays a key role in intellectual and professional development and seen as an integral part of human culture, because of creating an understanding of the surrounding world, providing a scientific basis and ensuring the development of technology. Mathematical studies have a decisive role in education, forming systemic thinking, form the person's cognitive abilities, as well as logical thinking and influence the teaching process of other disciplines (Yusupova & Ibyatova, 2018). Complex problem solving, critical thinking, creativity, decision making, cognitive flexibility – these are the competences most often referred to as a key element of sustainable development, and they can be developed through mathematical education (Vintere, 2018).

Over the last decade mathematical competence has become one of the most important educational priorities at the European policy level. The new competence-based teaching/learning of mathematics differs in that the student must be able to recognize the problem, to choose the appropriate method for solving the problem, to apply formulas in new atypical situations and to evaluate the importance of problem solving. A. Vorobjovs emphasizes the most important factors influencing mathematical competence: learning environment (including physical, emotional and extracurricular), the aims (students' aims, society and employers aims, aim of programme and standard), content of study materials and teaching/learning process – teachers' professionalism. Balancing these factors educator can contribute to increasing students' mathematical competence (Vorobjovs, 2017).

Students' analytical skills develop if the study process is based on the student-centred and self-directed study approach using also the distant education forms of studies. Modern applied mathematics assumes the combination in the study process of traditional and innovative methods, tools, forms of learning as integrated lectures, professionally oriented set of practical exercises with the use of the computer, the realization of interdisciplinary connections at the level of knowledge and analytical work to increase the professionally significant qualities (Korolova, Zeidmane, 2016).

In the last decade, the concept of competence has been developed and competence-based learning has become the dominant educational approach in Latvia (LV). Competence-based approach is a response to the demand of the labour market, thus making formal education more relevant to society development requirements, focusing on the students' abilities to develop knowledge, values, and attitudes necessary to address complex issues with what they will face in their future personal lives and professional careers.

According to the European Qualifications Framework for Lifelong Learning, competences include cognitive, functional, ethical, and personal dimensions including development of the knowledge, values, skills and attitudes (Towards a European..., 2005). According to the National Development Plan of Latvia for 2014-2020 (National Development Plan…, 2012) Action Plan "Competence Development", a person needs different competences (a set of knowledge, skills and attitudes). In Latvia, the concept *competence* is understood as the readiness of an individual to live in a changing, changing world; ability to use knowledge, skills and attitudes in solving problems in changing, real life situations; the ability to adequately use learning outcomes in a given context (education, work, personal or socio-political).

From the point of view of the four basic pillars of learning, all learners should acquire at least the following competences: collect, select, process and manage information; master instruments of knowing and understanding; effectively communicate with others; adapt oneself to changes in life; cooperatively work in teams; resolve conflict through peaceful dialogue and negotiation (Rychen, Tiana, 2004). A. Zeidmane and V. Duka (2014) researches and recommends to improve the students' independent studies using information communication technologies and using e-study environment to increase the mathematical competence.

In order to contribute to the development of mathematical education in line with above, as well as to promote mathematical and social competence building, Latvia University of Life Sciences and Technologies (LLU) and Siauliai University (SU) from Lithuania (LT) in 2011 within the framework of the Latvia-Lithuania cross-border cooperation project " Cross-border network for adapting mathematical competences in the socio-economical development" launched a sustainable initiative: International Student Scientific Mathematics Olympiad (ISSMO). Why sustainable? Although the project is completed in 2013, the Olympiad is held every year and the number of participating universities is steadily rising. The main objective of these Olympiad - the encouragement of best students for the adaptation of knowledge and skills by gathering them together and by setting the conditions to share scientific and cultural experience.

The aim of the article is to give insight into International Student Scientific Mathematics Olympiad, organized by Latvia University of Life Sciences and Technologies in order to contribute to the development of students' mathematical and social competence such as effectively communicate with others, cooperatively work in teams. This article describes the methodology of the International Student Scientific Mathematics Olympiad organization, summarizes the experience and analyses the results of the ISSMO.

## Methodology

By the tradition International Student Scientific Mathematics Olympiad is organized by Department of Mathematics of LLU in cooperation with Siauliai University. Students who good at mathematics, interested in solving specific problems as well as all who want to try their hand at math competitions are invited to participate in ISSMO.

ISSMO consists of two parts: the individual competition and work in groups. The level of the individual tasks does not exceed high school knowledge but may also be used knowledge acquired at the university. All tasks reflect a real-life situation, have an interdisciplinary approach (they include knowledge of other subjects, e.g., physics or statistics) and focused on ability to ask and answer questions in and with math and the ability to deal with and manage math language and tools. They include Jigsaw tasks, multiple choice questions - choose the right one, answers where need to mark all possible answers, briefly task solutions or drawings, tasks with an open answer – explanations, etc.

The assessment is based upon previous level of preparation, creativity, analytical thinking and elementary knowledge of mathematical theory that in generally available in the textbooks and most library reference collections. The individual tasks assessment is done mainly by teaching staff from LLU, SU and Estonian University of Life Sciences (EMU). It takes place immediately after the competition, so winners could be announced and awarded at the same day. Usually winners are determined in two categories - individual competition and teams.

Greater attention usually paid to work in groups of five - seven students (from different universities). Each group is given a practical problem, which had to be solved and presented. As there are also participants from Lithuania, Estonia (EE) as well as LLU International students including Erasmus+, it is necessary to have good English skills to work in groups. Presentation also has to be held in English.

Groups work presentations are assessed by participating universities' teachers. ISSMO work in groups assessment criteria include three directions:

- problem solution: mathematically correct problem solution and innovative or an interesting solution;
- the quality of the presentation: explanation of the problems and solutions and an interesting approach in the presentation - models, drawings, performance;
- cooperation - participation of the entire group in the presentation.

Groups are also given an additional task - to share experience of mathematics studies in their educational institutions, identify similarities and differences, as well as develop proposal for a mathematics studies advancement. Group work is a very effective method in mathematics, because it teaches to cooperate, make decisions, from which, whereas, accomplishments of all group depend on.

The following section of this article summarizes and analyses the results of the Olympiad by the universities, year and countries. A detailed overview is provided of the results of 2018 Olympiad.

**Results and discussions**

In 2018 Olympiad took place for the seventh time and there was a wide range of participants. Latvia has been represented by students from almost all universities: Latvia University of Life Sciences and Technologies, University of Latvia (LU), Riga Technical University (RTU), Ventspils University College (VeA), Vidzeme University of Applied Sciences (ViA), Liepaja University (LiepU), Daugavpils University (DU) and Rezekne Academy of Technologies (RTA). From Lithuania, Siauliai University and Aleksandras Stulginskis University (ASU) participate in the Olympiad, from Estonia - EMU. The number of ISSMO participants is summarized in Table 1. It shows also the dynamic of rising the number of participating universities.

Table 1

**The number of ISSMO participants**

| Year | Total | LV | | | | | | | | LT | | EE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LLU | RTU | VeA | ViA | LiepU | LU | DU | RTA | SU | ASU | EMU |
| 2011 | 55 | 35 | | | | | | | | 20 | | |
| 2012 | 55 | 35 | | | | | | | | 20 | | |
| 2014 | 29 | 13 | 8 | | | | | | | 9 | | |
| 2015 | 59 | 26 | 16 | 3 | | | | | | 14 | | |
| 2016 | 56 | 23 | 6 | 3 | 11 | | | | | 13 | | |
| 2017 | 64 | 29 | 3 | 3 | | 3 | 7 | | | 11 | 5 | 3 |
| 2018 | 37 | 7 | 5 | 3 | 2 | | 2 | 1 | 1 | 9 | 3 | 3 |

Table 2 summarizes average and maximum points of individual competitions by years. As it is seen, RTU shows the best results almost every year. It should be noted that the students of the Faculty of Physics and Mathematics from the University of Latvia participate in the Olympiad, with specialization in mathematics. Surprisingly, but their results are comparable to non-mathematicians.

Table 2

**ISSMO individual competition results**

| Year | University | Average | Max |
|---|---|---|---|
| 2012 | LLU | 13.4 (30) | 24 (30) |
| | **SU** | **13.5 (30)** | **25 (30)** |
| 2014 | LLU | 17.4 (30) | 25 (30) |
| | **RTU** | **21.1 (30)** | **26 (30)** |
| | SU | 16 (30) | 26 (30) |
| 2016 | LLU | 20.5 (40) | 38 (40) |
| | **RTU** | **30.5 (40)** | **40 (40)** |
| | VeA | 26.3 (40) | 32 (40) |
| | ViA | 17.8 (40) | 31 (40) |
| | SU | 19.2 (40) | 29 (40) |
| 2017 | LLU | 11.9 (30) | 14.5 (30) |
| | **RTU** | **17.3 (30)** | **19 (30)** |
| | LU | 16.8 (30) | 21 (30) |
| | VeA | 15 (30) | 16 (30) |
| | LiepU | 8.3 (30) | 12 (30) |
| | SU | 11.5 (30) | 14.5 (30) |
| | ASU | 9.6 (30) | 11.5 (30) |
| | EMU | 14.7 (30) | 19 (30) |
| 2018 | LLU | 7.3 (24) | 14 (24) |
| | RTU | 12.8 (24) | 20 (24) |
| | **LU** | **20.5 (24)** | **21 (24)** |
| | VeA | 13 (24) | 14 (24) |
| | **ViA** | **19 (24)** | **21 (24)** |
| | SU | 9.3 (24) | 19 (24) |
| | ASU | 5 (24) | 7 (24) |
| | EMU | 10 (24) | 12 (24) |

Figure 1 illustrates the overall assessment of tasks for 2018, but figure 2 - assessment by country. The first five tasks were, so-called, one-point tasks - very simple with the given answers. Tasks 6 to 8 were three-point tasks in which the answer had to be based on calculations.

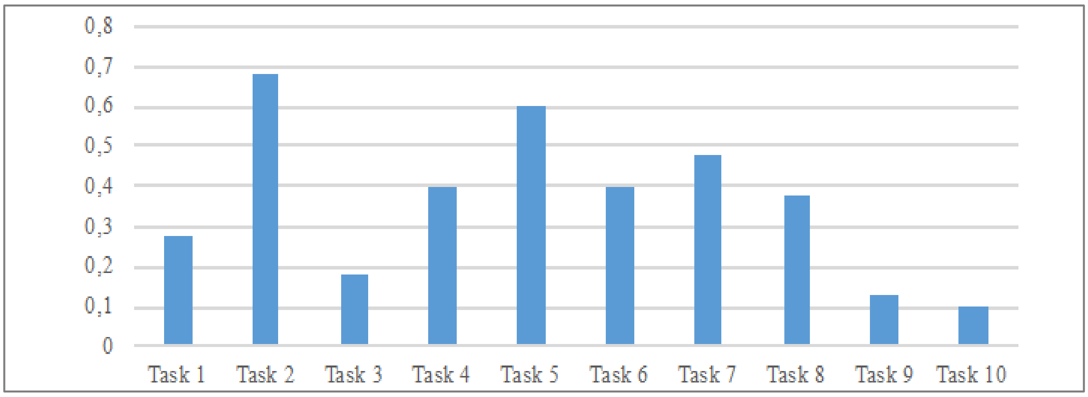


Figure 1. Overall assessment of tasks for 2018.

Task 9 included physics knowledge, because it was necessary to calculate the average speed. Only 13 % of all students answered the correct answer. In general, the answer is given in 67 % of cases. To solve this problem, students had to know how the average speed of the movement is calculated, but students do not pay attention to it, and 22 % of the cases they are looking for the arithmetic mean. 11 % of students do not start solving this task at all.

Task 10 was also practical - calculate how large the cleaned area of the car's windscreen wipers is. This task was based on geometric knowledge. Right answers gave only 10 % of students, but 32 % of students do not start solving this task at all. Task 10 has focus on development of the ability to deal with and manage math language and tools. During the Olympiad students were allowed to use formula sheets which contains also formulas needed for calculation of required are. In this case the decisive role was the creation of a drawing that describes students' competence understand and use different mathematical objects and situations, choose or change different representations. In both of these tasks 9 and 10. 5 points were awarded for the correct answer.

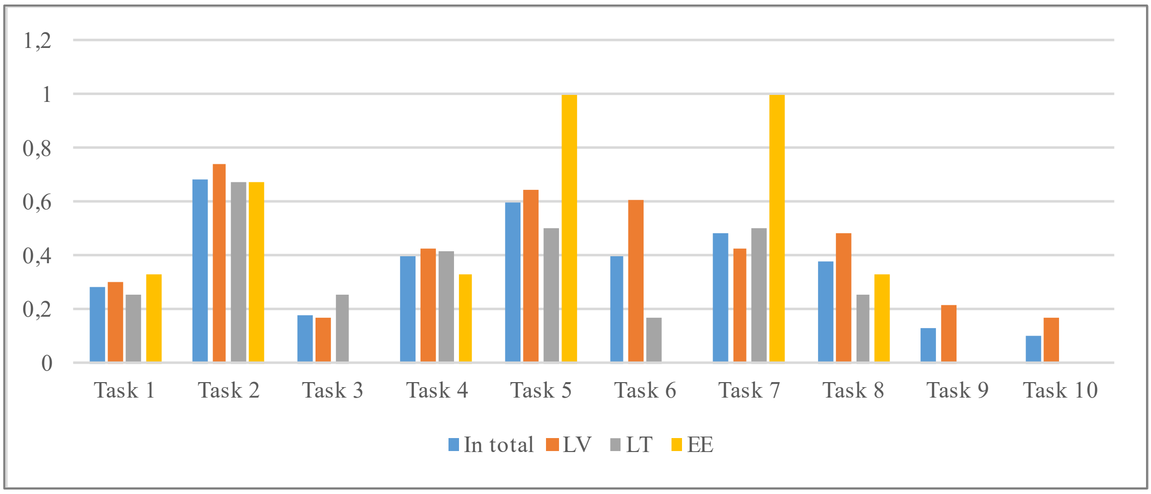


Figure 2. Total 2018 task assessment by country.

Comparing the results of 2018 (Figure 3) between the two largest technical universities in Latvia: LLU and RTU, it is evident that RTU students' achievements in this Olympiad are higher than those of LLU.

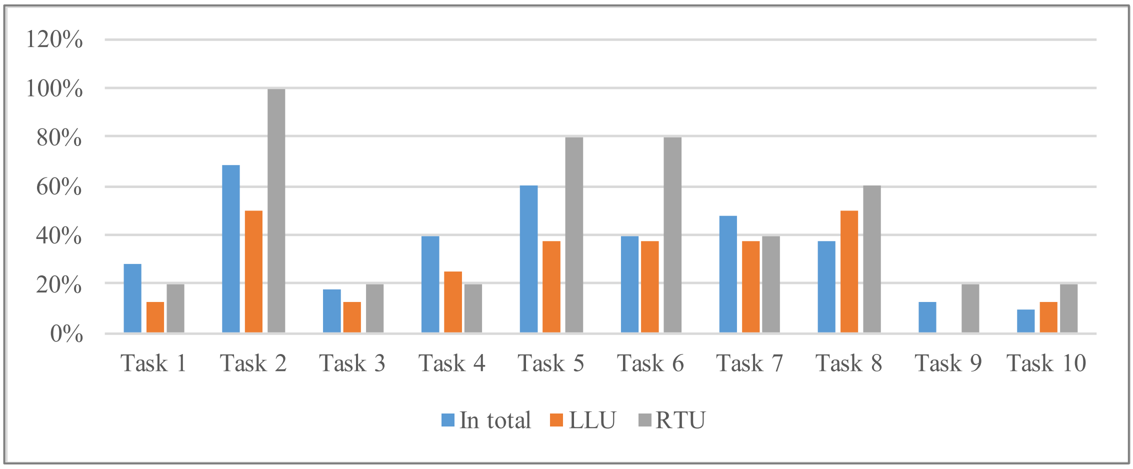


Figure 3. Comparison of results of LLU and RTU.

Results in figure 4 show that among the so-called agricultural universities in the Baltic States, Estonian University of Life Sciences has the highest achievements, the lowest - Aleksandras Stulginskis University.

Groups are also given an additional task - to share experience of mathematics studies in their educational institutions, identify similarities and differences, as well as develop proposal for a mathematics studies advancement. Gathering of students thought, mathematics study process evaluation can be divided into four components: mathematics studies organization, acquired mathematical knowledge application / usefulness, teaching staff and building professional and social competences.

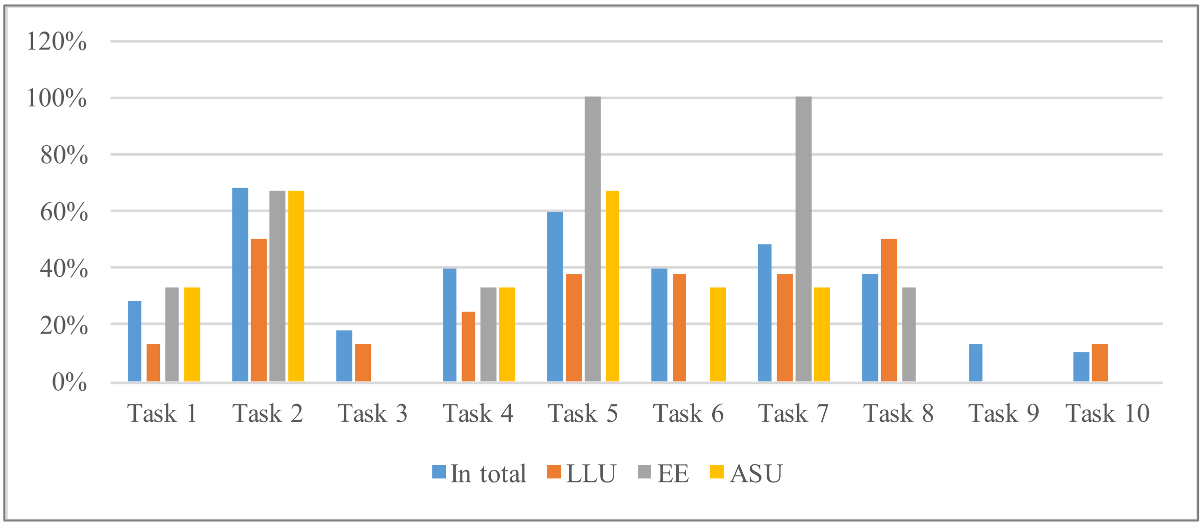


Figure 4. Comparison of the results of the so-called Agricultural Universities in the Baltic States.

Common to the higher mathematics studies - homework (individual work), tests, practical work in relatively small groups as well as the availability of electronic training material (e-learning training platform, etc.). There are also found some differences. In LLU mathematics courses include also laboratory work where students learn to use *MathCad / Matlab*. But in Riga Technical University home works are being evaluated and assessment provide extra points. They also have the exam during the semester. Students appreciate it, because it provides an opportunity easier to pass course. High school math refreshing courses which are organized in LLU and RTU are also very high appreciated by the students.

There are two approaches in evaluation of acquired mathematical knowledge application / usefulness:

- mathematics studies based on practical approach, are designed for use in math skills to solving real problems;
- theoretical approach to student assessment contributes to general skills (as students said "more solid background").

LLU and RTU students see the need to study mathematics but students from the Siauliai University in doubt about math applications in the future/ in specialty. At same time for Vidzeme University of Applied Sciences students only a few themes seem interesting and useful in their chosen profession.

In Siauliai University students appreciate as the most valuable asset students' friendly study environment, technology availability, good relations with teachers, as well as the fact that the teachers are very nice and the study process gives a lot of very good examples. Ventspils University College students are surprised that the teacher after the lecture not only asks whether the students all understood and whether there are any suggestions or wishes, but, above all, take into account the students' recommendations. But LLU students are worried that sometimes teachers "rush through the lecture" - the information is given too fast.

Students' perception of building professional and social competences of can be illustrated by students' statements: *Mathematics helps us to improve how we think and how we solve problems*; *mathematics improves technical thinking and overtake obstacles*; *gives solid background*; *should be more people to study mathematics! Mathematics is cool!*

Work in groups also includes development of proposals for a mathematics studies improvement. To improve mathematical studies in all universities mentioned it would be necessary: organize extra courses to refresh school mathematics, associate mathematics with daily life, use more visual materials, lecturers should learn more examples from life and make interactive lessons, develop encouraging system to learn mathematics, in study programs include history of mathematics, organize excursions to companies, invite interesting people to tell about mathematics in their professional and personal life, celebrate math-related events.

## Conclusions

- The main benefits of the International Student Scientific Mathematics Olympiad are: interest in mathematics promotion among young people; strengthening education obtained at school, provide opportunity for its creative application; encouragement for students to think "out of the box"; development of cooperation between young people with similar interests.

- Providing opportunities for pupils and students to communicate about mathematics, is cultivated a supportive environment that can deepen mathematics understandings and meaningful studies at universities. It promotes the interest of mathematics between students, giving a creative opportunity to use it, promote cooperation and provide opportunity to share scientific and cultural experience as well as to improve professional and social competence.
- International Student Scientific Mathematics Olympiad consists of two parts: the individual competition and work in groups. Greater attention is paid to work in groups. Group work is a very effective method in mathematics, because it teaches to cooperate, make decisions, from which, whereas, accomplishments of all group depend on.
- Comparing the results among the countries, the highest achievements have Estonians. Analysing the achievements of LLU and RTU, one can see that RTU demonstrates a higher level of achievement than LLU. EMU has the highest, but ASU - the lowest achievements among the so-called agricultural universities in the Baltic States.
- Solutions to practical problems where the knowledge acquired in other study subjects is applied have created the most serious problems for the students. Its proves that mathematics studies at universities should focus not on so called procedural knowledge and step-by-step calculations using certain formulas and mathematical operations, but to application of mathematics to real-life situations as well as interpretation of results.

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# Factors Affecting the Result of a Secondary School Math Exam

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**Abstract**: The results of the Latvian students in the mathematics exam are below expectations from year to year at an average score of 37 % over past three years being the worst result among all centralized exams (CE) in Latvia. Despite these worrying statistics, only three researches were published in the last 10 years by responsible institutions, mostly covering bad news. This is why the aim of this article is to encourage scientific discussion on undisputed unsatisfactory results in math, to determine factors with the greatest influence on the results of a secondary school math exam and to discuss potential improvements in preparing for the exam. The study was held in Marupe Secondary School in suburb of Riga, Latvia. A huge amount of data was collected about 53 respondents over their three years of studying in high school classes and after passing the exam. All obtained data were analyzed in search of correlation between exam score and all kinds of factors. Factors with the highest impact turned out to be results in physics, Latvian and biology, problem solving and modelling skills, proactively asking for help if a student did not understand the concept. It is also useful to learn factors that have a negative correlation with exam results, for example, regular homework assignment led to significantly lower result in the exam. During this research it proved to be wrong to consider that solving past exams is a factor with positive interdependence with exam score, because no correlation was found. It is significant to discuss these and all kind of other data-based findings on why student results in mathematics in Latvia are this low to prevent relying on stereotypes reproduced for years and to keep on searching for the best approaches of teaching and learning mathematics.

**Keywords**: school education, mathematics, exam results.

## Introduction

Results in centralized exams (CE) are essential for most high school graduates, since 91 % of graduates choose to study at universities in Latvia, where the most common admission criterion is the CE result. Only 9 % of graduates choose to study abroad (Dedze et al., 2011), so in their case CE results are not determinative – foreign universities mostly select students based on their own entrance exam.

Exam results in percentage form represent the correct answers in points relative to the maximum possible score. If you compare average CE results in different subjects, each year result in mathematics is either the lowest or with rare exceptions the second from the bottom (Figure 1). Based on the data provided by the State Education Content Centre Latvian students demonstrate almost the same low result in CE in mathematics every year. For example, in 2016 it was 36.2 %, in 2017 34.9 % and last year 38.8 % (VISC, 2018). Results in mathematics are quite mediocre also in gymnasiums, for instance, last year just 42.3 %.

Despite the fact that student results in mathematics when graduation high schools are low, this issue earns attention just for some days after the results are revealed. This topic is then mostly covered by mass media with articles quoting students who describe the exam as too complicated and those responsible for its content saying CE meets the standard requirements. Researchers pay little attention if any to this problem. In 2016 the state institution responsible for preparing exam papers published a methodical material for teachers about the results and performance of students in mathematics CE. Authors of this publication conclude that student's results in past years show that overall students have not attained sufficient level in the standard mathematical skills like applying algorithms that every mathematics teacher is trying to develop and train. This material also questions the level of understanding of the concepts and refers to some common knowledge like "pupils have different mathematical learning experience". At the same time, this piece of work lacks expertise and practical advices (Cakane et al., 2016). Authors of this material also doubt students' reading skills and critical thinking, which could be an affecting factor and could be not, since students gain almost double the percentage in biology and chemistry (Figure 1), where both mentioned skills are important as well.

Before this methodical work, a similar work has been published five years earlier (Vilcins, 2011). Its conclusions were even more general, the most critical of them being "The average achievements of pupils in individual tasks cause reflections on the acquisition of the skills to be tested during the study process". The third source to question results in mathematics CE is dated back in 2009, when Latvian Ministry of Education and Science financed analysis on preparation for the transition to a single Latvian language exam. Two pages of this report were dedicated to mathematics exam.

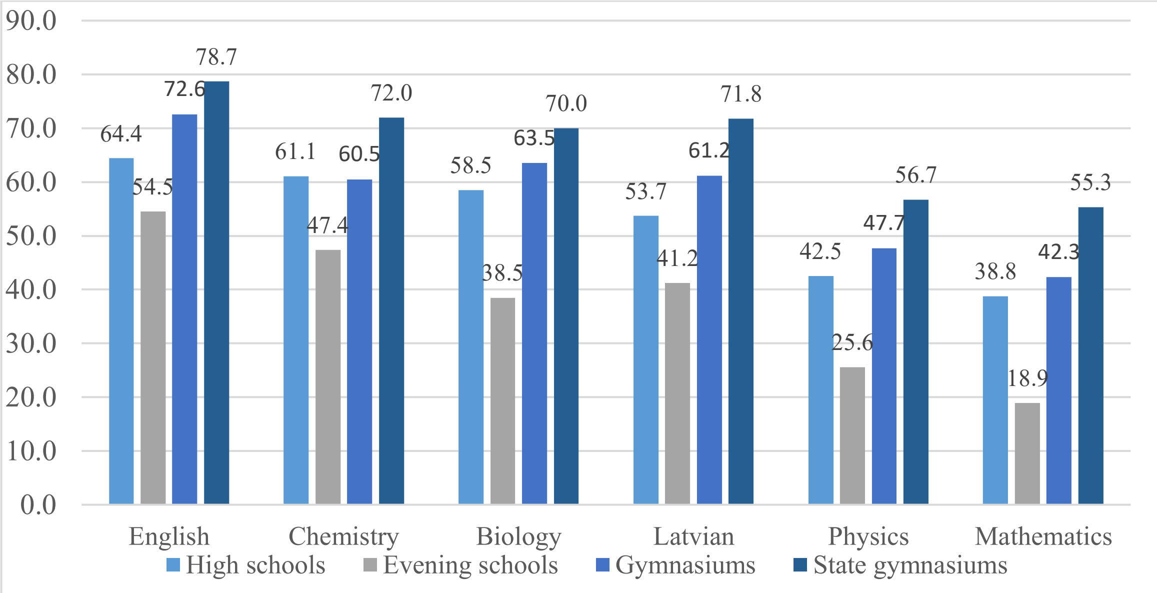


Figure 1. Centralized exam results by school type in school year 2017/2018 (VISC, 2018).

Authors found out those students from minority schools showed significantly better results than students who studied in Latvian. For example, in 2009 the difference was, respectively, 46.6 % compared to 34.5 % (Centralizeto ekamenu pedejo…, 2009). Despite being called "analysis", no explanation or at least hypothesis on why is to so is given in this publication. Vast majority of publications and research on students' success in mathematics focus on OECD PISA test results of 15-year-old students, so the conclusions of these materials are not always applicable for high school graduates, who are normally 18 or 19 at the time of exam session. However, a recent survey of first-year students shows that mathematical competences acquired in secondary schools are mediocre. For example, only 1 in 6 students self-reflected to be able to think mathematically and just 10% of secondary school graduates got reasoning skills during mathematics course (Zeidmane, Rubina, 2018). Based on this and other surprising evidence, researchers conclude secondary school graduates are not ready for studies at the university (Zeidmane, Rubina, 2017). Riga Technical University is even more outright: first year students are given elementary mathematics tests, and on average 45% of students fail on this test (Volodko, Cernajeva, 2015).

The aim of the article is to start a scientific discussion on this case, to determine factors with the greatest influence on the results of a secondary school math exam and to discuss potential improvements in preparing for the exam, which influences ability of secondary school graduates to successfully continue studying at higher level.

## Methodology

To identify the factors affecting the result of a secondary school math exam, other researches in global and Latvian literature have been studied. Pedagogical experiment was held in a relatively huge Marupe Secondary School near Riga with over 1200 students, approximately 230 of them being high school students who mostly choose to master mathematics or commercial science and economics in depth.

This is a case study carried out from 2014 to 2018. Potential weakness of this study that threatens generalization of its results is a relatively small number of respondents: 53 graduation year students. Of these respondents 25 mastered mathematics and 28 – commercial science. On the other hand, it involves data about students during three years of studies in high school, including:

- test results;

- absence statistics;
- standardized well-being and attitude survey adapted from "Teach for All" every semester;
- since the researcher was also a mathematics teacher for all of these 53 students, also all kinds of observations from the lessons and after-lesson activities, such as learning styles, behavior in a new situation, stress persistence, overall attitude to learning;
- test on mathematical competencies;
- individual centralized exam results showing percentage score of each student in all three parts of the exam;
- before and after-exam questionnaire as a reflection on the performance preparing for the exam and during the exam.

Research questions are: 1) what factors have the greatest influence on the results of a secondary school math exam; 2) what potential improvements can be concluded from these factors?

**Results and Discussion**

Mathematics CE result correlates quite strong with the results in other subjects (Table 1). This means mathematics cannot be seen separately, this is why a student may expect a considerably good result in mathematics only in case of having some effort in all subjects.

Table 1

**The correlation coefficient of the results of CE of other subjects with the result in mathematics**

| Subject | 2017 | 2018 |
|---|---|---|
| Physics | 0.90 | 0.66 |
| Biology | 0.85 | 0.55 |
| Latvian | 0.77 | 0.57 |
| English | 0.73 | 0.44 |

Of all correlations obtained during this research, the result of the mathematics CE correlated the most with the result in physics. Last year the correlation coefficient between mathematics and physics CE result was 0.66, in 2017 it was even more impressive at 0.90, which is almost a linear function. This means you can almost certainly predict the result of a student in mathematics given the percentage of this student in physics CE (Figure 2). Of course, one must keep in mind that the math exam is compulsory, but physics is optional, but still each year at least 10 students choose to pass the physics exam.

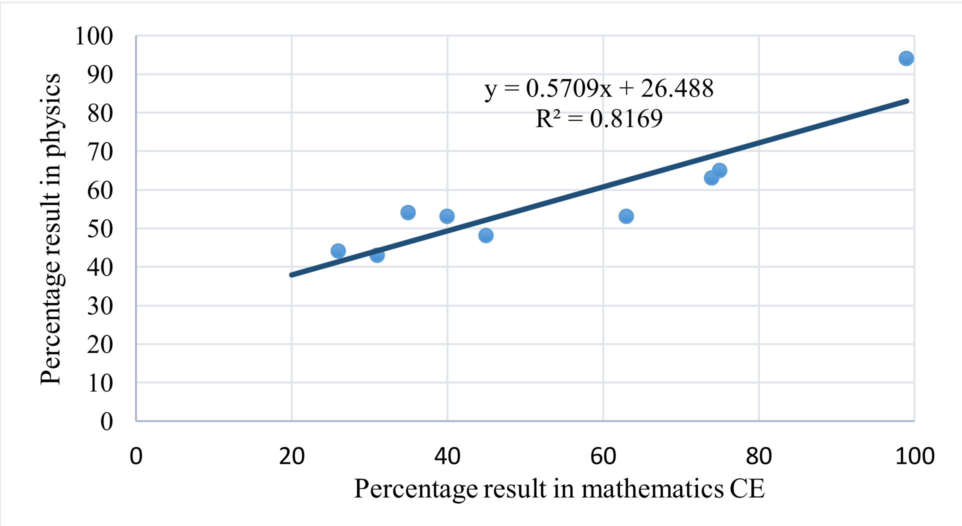


Figure 2. Correlation diagram between mathematics and physics CE results.

It is interesting that a similar study held from 2009 to 2012 in Nigeria showed very weak or even no correlation between mathematics and physics (Abdurrahman, Madugu, 2014). The strongest correlation during this study was 0.38 in 2009, which is considered to be a moderately weak, and the weakest correlation was 0.02 in 2011 which indicates no relation between success in these two subjects at all.

Meanwhile most studies in the field of interrelation between mathematics and physics show evidence of close relation. For example, researching mutual influence between mathematics and physics all along their history, author from Greece comes to a conclusion that "it is impossible to deeply understand either mathematics or physics without being sufficiently aware of their interconnections" (Tzanakis, 2016).

The second strongest correlation is between mathematics and biology (0.85 in 2017, which is a strong relation) and the third – between mathematics and Latvian. This can be explained by similarity of tested skills in all four exams just mentioned: mathematics, physics, biology and Latvian. Both students in a questionnaire and researchers all around the world are unanimous – these exams more than others require extensive use of reading skills, critical thinking, problem solving and analysis. Most authors explain it with "the rich historical relation between physics, mathematics, and the biological sciences" extending over several centuries (Mackey, Santillan, 2005). Other authors accentuate that teaching biology and physics has changed a lot lately, expanding to several fields predominantly explored by mathematicians in the past, for example, statistics in experimental design; pattern seeking; models in evolution, ecology, and epidemiology; applications of complex numbers in modelling any vector quantities and so on (May, 2004). Since "biology in general has finally embraced mathematics as an indispensable partner, and that biology enriches and will continue to enrich mathematics" (Hofmeyr, 2017).

The close relation between scores in native or foreign languages and mathematics is a globally well-covered phenomenon. You may find examples of research and proof all around the world (Henry, Nistor, Baltes, 2014; Oh, 2010; Rambely et al., 2013). Researchers from Malaysia found out that students in a lower English proficiency group showed a negative relationship with mathematics achievement.

Before the exam, students took part in a test on mathematical competencies. Of all components of mathematical competence, the result in mathematics CE correlated the most with problem solving skill. This skill was measured by several tasks (Figure 3), which were selected based on an understanding that problem solving is a set of skills, including ability to formulate and solve various types of mathematical tasks: open type and with one correct answer; abstract and real-world problems (Lester et al., 1994).

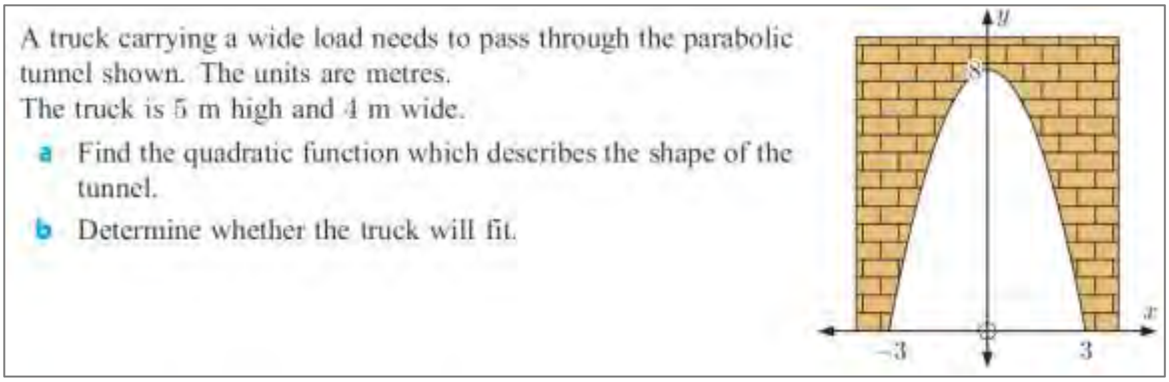


Figure 3. A task from questionnaire on mathematical competence (Martin et al., 2012).

Correlation between overall score in mathematics CE and score in problem solving tasks is 0.59 – not too strong, but above average. This skill is less related to results in Part 1 where students are asked to solve one step problems on basic knowledge and Part 2 consisting of applying knowledge in standard situations (0.51 and 0.50 respectively). Meanwhile correlation with Part 3 is stronger: 0.64. Part 3 examined use of knowledge in non-standard situations. Usually it consists of three tasks where students should prove, model or explore all cases.

Second most related component is modelling ($r$ = 0.53 to overall score). Modelling correlates the most with Part 1 of CE since 60 % of this part consist of multiple-choice questions. Reflecting on strategies of taking Part 1, students revealed they mostly used exclusion method and after that checking possible options by substituting them into the equation, solving the problem backwards from the answer or applying other modelling approaches.

Other components of mathematical competence correlated with CE score significantly less with one exception – mathematical intuition has a correlation coefficient of 0.48 with Part 2 of mathematics exam. Meanwhile such personal traits as persistence and curiosity even had although small but negative coefficient with Part 1 of around –0.3. It means that students who proved to be more persistent and curious in a questionnaire showed slightly worse results in one-step tasks.

Students also answered a lengthy questionnaire covering various aspects of student's everyday lives including questions about solving past exams, frequency of doing homework, dealing with mathematics problems, having a driver's license and many other. Only some of these aspects had a statistically significant impact on CE result.

The most pronounced effect was caused by the way students responded if they did not understand something in the learning process. All students with Top-10 scores, asked, what did they do if after a second explanation the concept was still not clear for them, replied that they continued to understand the idea. For example, "I talk to a teacher and did not stop until I realized how it works", "I went through it again by myself" or "I asked for a clarification again and if I still did not understand I continued to think about it until I understood". Students with the lowest results answered the same question saying they would usually ignore the question and hope it would not appear on the test or exam or try to find the answer in the Internet not to leave blank spaces in the worksheet. Students with overall percentage of 33 % (14 % below average) answered as follows: "Often I did not ask, because I was ashamed that I did not understand."

Second by the impact was the question "How many percent of the exam time did you use while taking the exam?" Students who used all or almost all time intended for writing had better scores with correlation coefficient of 0.38. This factor had a relatively smaller influence on Part 1 and higher, very close influence on Part 2 and Part 3.

Significantly, the result was also affected also by the driving experience of a student. Those students, who drove car on every-day basis, had a better result in Part 3 with correlation coefficient of 0.33 which is moderately low interdependence but unexpected enough to mention it.

All the other correlations in the questionnaire were below 0.3, most of them being around 0 which indicates no correlation. Among them, the most surprising can be mentioned: there was a precisely 0.0 correlation between CE result and the number of past exams student solved preparing for the exam. There is a persistent belief that solving past exams guarantee some advantage in the score but it did not appear to be so during this research.

Before the research, it was hard to predict that doing homework has a medium high negative correlation with CE result. Student who regularly did homework had a lower result in Part 1 with a correlation coefficient of –0.56. Homework regularity had a little, but also negative impact on Part 2 scores and almost no effect on Part 3.

Respondents of this research had a quite different learning experience during the high school years. Researcher had an opportunity to teach 25 of them for all three years and 28 – for the last year before exam. The first group learned mathematics in depth and the second was a commercial science class. Based on standardized well-being and attitude survey in the end of each semester and everyday observations of student learning strategies, students from the mathematics group were more focused on work, more independent in learning and persistent. The commercial science group students highlighted as benefits opportunity to have discussions on this moment important topics in Latvia, to learn in an informal environment and similar factors not directly related to learning. The average result of the first group was 58 % and the second one – 36 %. For sure, you could expect mathematics group having better results, but the result of commercial science group was noticeably lower than in the same group in previous years. To be more specific, it was down by 11 %. Possibly, it is caused by low expectations of second group students.

Student attendance data indicate different influence of absence on CE results for students with high, medium and low results. Students with high overall score had a slightly better result in CE if the amount of absence day was higher (correlation coefficient 0.27). This could be explained by the fact that this group of students are absent usually because of taking part in Olympiads.

On the contrary students with lowest results in CE who did not attend mathematics lessons more often than other students from this group had a lower result in exam, still the coefficient of interdependence here was not too high: –0.42. The most surprising fact about absence is that students with average results in the CE (between 34 % and 43 % overall score) did have a significantly lower result in mathematics if they missed some classes. Even though this result could be expected, the unforeseen fact about it is the correlation coefficient of –0.68, which indicates quite high interdependence (Figure 4). This finding proves that students with lower and especially medium results should mind missing a day at school.

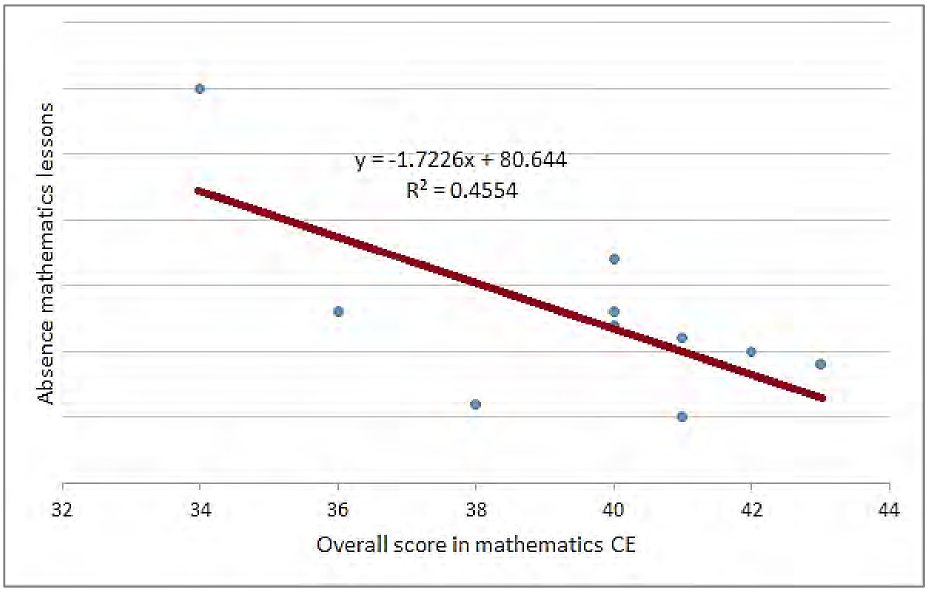


Figure 4. Correlation between CE result in mathematics and not attended mathematics lessons.

The last three weeks before the CE are meant for individual consultations, and the frequency of attending these consultations has once again a great impact on the exam result. All of 10 students with the highest scores in exam attended at least one consultation and 6 out of 10 attended all consultations. Students with the best two results spent vastly more time for individual consultations than it was required according to a plan. Meanwhile among students with 10 lowest results none of them attended all consultations, 1 student attended almost all consultations, 2 – some and 7 did not attend any.

### Conclusions

Factor with the biggest impact on mathematics results appeared to be results in exact sciences (physics and biology) and languages, with a higher interdependence with native language and a bit smaller – with foreign languages. This hypothesis split into parts can be found in several researches. This conclusion should motivate teachers of mentioned subject cooperate more on interdisciplinary project to gain the best outcome for all involved subjects. Next strongest impact on exam result are problem solving and modelling skills. Researches in Latvia show that both concepts are relatively new and obscure for teachers. As for what student might do to ensure a better result, to-do list is as follows: proactively ask for help if something is not clear; attend as much mathematics lessons and consultations as it is possible; expect a higher result than your current level; be focused, patient, curious and not too informal while in class.

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# Impact of Local Action Groups on Improving Professional Competences of Rural Residents

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**Abstract**: Trainings, which are perceived as the process of acquiring new knowledge, skills and abilities or enhancing and upgrading those already possessed are undoubtedly the basic tools for human resources development. It is recognized that trainings should lead to improving skills and increasing qualifications and competences. Access to trainings is limited in rural areas due to geographic coverage and financial reasons (charges). The solution may be trainings and courses organized by LAGs in cooperation with other entities in the areas where they operate. The aim of the article was to assess the activities of the Krasnik Land LAG in terms of effectiveness of organized trainings, increasing the competences of local entrepreneurs in areas where LAG operates. The research also sought to determine the impact of trainings in customer satisfaction management on the level of customer satisfaction of rural entrepreneurs taking part in the training. The Servqual method and statistical program, Statistica 13PL, were used to analyse the results. The most important results include two positive gaps in the area of responsiveness and empathy for the evaluation of trainings organized by the LAG. LAG respondents also highly rated the selection of the proper training companies. Building social capital in the rural areas is the condition for stimulating the involvement of the local community in the development of the region and better use of its resources. It should be emphasized that training organized by the LAG is very popular among residents running businesses in the analysed 9 municipalities. Respondents pointed out free admission to trainings, topics important for the development of their businesses related to the development of their region.

**Keywords**: rural development, Local Action Groups, professional competences, training.

## Introduction

### *The importance of LAGs for improving the quality of life*

Activation of rural areas is a significant challenge for Polish villages, where unemployment is the biggest problem, which is particularly difficult to eliminate in agricultural areas. The majority of residents living up to now from agricultural production will have to retrain and acquire a new source of income in the near future due to the changing trends on the Polish and global agricultural market (Koulouris, Sotiriou, 2010).

Efforts of both central and local authorities, which are aimed at the main objective, i.e., preserving the cultural heritage of individual countries, have led to the implementation of the idea of rural development by Local Action Groups (LAGs). The LAG's main activities are directed to the development and promotion of individual regions and mobilization of their potential. They are intended to promote the improvement of competitiveness and contribute to the activation and cooperation of local communities (Pelucha, 2006).

The European Union structural policy addressed to rural areas is financed from two independent sources: cohesion policy and Common Agricultural Policy (Kuhmonen, 2018), which can be characterized as: the need to co-finance expenditure by Member States, introduction of programs at the national level, plurality of beneficiary groups and difficulties with an unambiguous assessment of program effects.

LAGs have been a new entity in the Polish social reality since 2004, because they grouped people interested in making changes at their place of residence. The principle of LAGs is to involve entities from both the public and private sector, while the public sector cannot have more than 50% of votes in the authorities making the most important decisions (Szymanska, 2017).

Since 1991, the LEADER (Wojciechowska-Solis, Soroka, 2017) focus has been introduced in the European Union, which has become a method of stimulating the activity of local communities and their involvement in the search and utilization of potential in rural areas. In its assumptions, LEADER is constructed on the grassroots partner initiative and on the innovative approach to rural development. It is also the implementation of projects resulting from it that combine resources, knowledge and skills of local community representatives (The leader approach…, 2006).

The Local Action Group is primarily people who want to create better living conditions for all residents through the utilization of local resources. The partners undertake joint, practical activities, sharing resources, responsibility and benefits. Local Action Groups, using all the possibilities offered by Poland's membership in the European Union, can become a powerful local organization that creates the development of the entire region (Doitchinova, Stoyanova, 2014). Cooperation with partners in other regions of Poland and the European Union is a very important element of its operation.

***The importance of professional competence***

Competence-based management standardizes and integrates all activities that accomplish corporate goals regardless of its size. It provides determination of basic requirements for employees at their job positions, directs the development of human capital, contributing to the improvement of competitiveness. Competence-based management is also shaping the behaviour of employees. It is the best method for determining job requirements, building strategic programs in the field of human resources, developing qualified, committed employees, improving the efficiency of the company's operations. Competences have an impact on the results of the activity, they contribute to achieving a high level of individual inputs to the development of an organization (Kolibacova, 2014).

According to R.E. Boyatzis (2008), competence is a human potential that leads to such behaviour, which contributes to fulfilment of the requirements at a given workplace within the parameters of the organization's environment, which produces the desired results. S. Iriste and I. Katane (2015) described competence as the ability to fulfil tasks and roles according to the expected standards. This definition perceives competence as the acquisition of standards defined by society. The authors perceive competence as the ability acquired in the educational process and based on knowledge, experience and attitude. Such ability manifests itself as a skill - readiness to act.

The labour market today requires employees and self-employed to constantly improve their professional qualifications and flexibility. Unfortunately, many employers do not invest in the development of their staff, at the same time requiring more and more skills from them, thus transferring high costs of increasing competences to employees.

The most popular form of improving employee qualifications are trainings that include learning processes implemented in the organization, aimed at raising qualifications, supplementing them with new elements of knowledge, skills, personal qualities or behaviours. The most popular forms of modern employee improvement methods include coaching, mentoring and tutoring. Employee competences are becoming more and more important. Currently, the most desirable competencies are: team work, leadership, communication skills, customer focus, flexibility and stimulating the development of others (Riggio et al., 2003).

The use of European funds by employers and non-profit organizations has a large impact on the strategies of training companies. Local Action Groups are an appropriate intermediary link between a training company and the final beneficiary, i.e. a person applying for increasing their professional competences.

The aim of the article was to assess the activities of the Krasnik Land LAG in terms of effectiveness of organized trainings, increasing the competences of inhabitants-entrepreneurs in areas where LAG operates. The research also sought to determine the impact of trainings in customer satisfaction management on the level of customer satisfaction of rural entrepreneurs taking part in the training. An attempt was made to estimate the importance of individual dimensions in the evaluation of the studied service by respondents through the use of the Servqual method (Sawicki, Wojciechowska-Solis, 2010). The area on which the Krasnik Land LAG is operating is considered one of the poorest regions of the European Union, which is why residents participate in organized trainings with great interest, trying to diversify their income and become independent from agriculture.

## Methodology

The development of human capital is very important in rural areas. The same requirements are imposed on the public living in areas outside the urban agglomerations as well as on urban residents. For some companies, barriers of sending an employee to trainings increasing their professional competences may stem from logistic and financial factors (Barefield, 2009).

In Poland, building grassroots elements of public-private partnership as well as social partnership and their functioning is a positive experience for communities living in rural areas (EU European

Commission, 2013). On the one hand, these groups are the authors of the local area development strategy where they conduct their activities, and on the other hand, they act as beneficiaries of assistance, while at the same time they are institutionally responsible for the implementation of development strategies and spending EU funds allocated for this purpose. The initiatives undertaken by public, economic and social entities as part of the three-sector partnerships contribute to the improvement of the quality of life of rural areas inhabitants.

The goal of local action groups is to improve the quality of life of residents in their region and increase social and economic activity in the LAG area (Zajda, Kretek-Kaminska, 2013). The objectives were recorded in Local Development Strategies.

Implementing Axis IV – LEADER, as part of RDP Local Action Groups, conduct three types of activities, on the basis of agreements with the Voivodeship Marshal’s Office as the Implementing Institution:

- implementing Local Development Strategies;
- implementing cooperation projects;
- functioning of the Local Action Group, acquiring skills and activation.

By implementing local LAG development strategies as part of announced tenders – calls for proposals, they select projects for financing, submitted by local institutional or private entities under four financial categories: renewal and development of rural areas, creation and development of micro-enterprises, diversification into non-agricultural activities, and so-called small projects related to the development of tourism, culture, education, sport, tradition and regional heritage.

This study included persons running businesses (micro-enterprises) in the field of tourism development, namely entities providing tourist services, agritourism, rental of equipment for tourism in rural areas and food services in the region of the Krasnik Land LAG. The Krasnik Land LAG operates in 9 municipalities, most of which comprises rural areas.

The study was conducted in the period of June-August 2018. The research sample included 120 micro-enterprises (persons operating a business). Enterprises were selected based on the availability from 9 municipalities covered by the LAG and a declaration of using the training offer proposed by the Krasnik Land LAG. When selecting businesses to the experimental sample, the confidence level was set at 0.95, the estimated fraction size was determined at 0.50 and the maximum error was set at 0.05. The study used the method of a diagnostic survey, with an original research tool in the form of a questionnaire. The Servqual method was used for further analysis. The questionnaire consisted of two parts and contained 22 questions each. The five-point Likert scale was used to measure the attitudes.

The Servqual method is aimed at determining the differences between the quality of the perceived service and the quality provided by a specific company, which allows estimating the degree of customer satisfaction with the services provided (Wojciechowska-Solis, Mazurek-Kusiak, Soroka, 2016). Evaluation is carried out from the point of view of the five dimensions of service quality: tangibles (I), reliability (II), liability of suppliers (III), confidence (IV) and affordability (V). Considering individual dimensions, tables were designed in the third part of the survey, which was intended to weigh the tested dimensions (Zeithaml, Berry, Parasuraman, 1988; Sawicki, Wojciechowska-Solis, 2010). Based on the unweighted Servqual results, one can conclude which of the elements of the service provided should be further analysed in order to achieve its most optimal level of quality. The calculated unweighted Servqual result can have a positive, negative or zero value. A positive result means obtaining better quality/satisfaction than customer’s expectations; a negative result indicates a failure to meet expectations. The most optimal situation is when the result is zero, which means that the service exactly meets customer expectations. The weighted Servqual index is acquired with the third part of the survey, in which respondents weigh particular areas and non-weighted Servqual indices (the sum of the weights should amount to 100).

The Statistica 13 PL (StatSoft, 2019) software was used in statistical analyses. An analysis of descriptive statistics and Student’s t test were applied. Prior to the analysis, multivariate normality was examined, testing each variable for normal distribution. Slight deviations were omitted, due to the number of variables in each group. Means were considered statistically significant differences; which probability was less than $p<0.05$.

## Results and Discussion

Entrepreneurs entering the trainings expect that the acquired knowledge will help them to obtain information on managing their clients' satisfaction, as well as find new directions for improving the quality of products or services offered.

The respondents were asked to indicate the level of their expectations regarding the trainings they participated in and the opportunities that would help them to achieve. The actual state was recorded in the second part of the study – what was achieved after the trainings offered by the LAG and the level of meeting expectations. The results show differences between the expectations of the training beneficiaries and the state of the service provided to improve their qualifications.

The "difference" shown in Table 1 between the obtained Ex post and Ex ante variables among the training participants illustrates the quality of the provided training service. Expectations indicated before the training were higher in three areas: tangibility, reliability, confidence. Expectations of people participating in the trainings were met in the areas of responsiveness and empathy. Currently, in the age of the Internet and general access to information and focusing on quality, and not on cheapness of the tender, companies that win them provide services at a very high level. Gaps in the "in plus" areas prove that people who were employed to provide training services seriously approached the problems faced by the participants and tried to help them in solving them. The response to the questions was very highly rated.

Table 1

**Differences in expectations (Ex ante) and perceptions (Ex post) of the quality of services provided by training beneficiaries and differences in data values presented as absolute values**

| Dimension/area | Ex ante | Ex post | Difference |
|---|---|---|---|
| Tangibility (I) | 4.187 | 4.063 | -0.124 |
| Reliability (II) | 4.488 | 4.464 | -0.024 |
| Responsiveness (III) | 4.347 | 4.401 | 0.054 |
| Confidence (IV) | 4.558 | 4.508 | -0.050 |
| Empathy (V) | 4.304 | 4.391 | 0.087 |
| Average | 4.377 | 4.365 | -0.011 |

The negative gap shows the areas that should be improved during the next trainings. Attention should be paid to the size of the room, the availability of information about further trainings, information on how to get to the place of training. The lower assessment of the area of trust speaks about the person conducting the training, its behaviour during the training, and the ability to provide information. Summing up the results presented in the table below, the participants appreciated the value of trainings organized by the LAG, as well as the selection of companies providing the service, they indicated areas where corrective actions should be taken.

Table 2

**Unweighted and weighted Servqual indices for the surveyed enterprises benefiting from the training offer**

| Dimension/area | Unweighted Servqual | Weight given | Weighted Servqual |
|---|---|---|---|
| Tangibility (I) | -0.124 | 26.54 | -3.291 |
| Reliability (II) | -0.024 | 22.13 | -0.535 |
| Responsiveness (III) | 0.054 | 18.94 | 1.023 |
| Confidence (IV) | -0.050 | 17.14 | -0.857 |
| Empathy (V) | 0.087 | 15.15 | 1.318 |
| Average | -0.011 | Sum: 100 | -0.468 |

The Servqual analysis also allowed to estimate the importance of individual dimensions in the assessment of the analysed service. The weights given showed (Table 2) that tangibility and reliability dimensions were very important for the training participant in the service provided. Three distinct gaps could be observed after taking into account the weights given in the assessment of the quality of training services: two positive and one negative. The weighted Servqual indicator helps select the most important gaps among the existing ones, which are the most important during customer decision making. The tangibility, responsiveness and empathy gaps were significant in the analysed case of the evaluation of training service quality. While the "empathy" and "responsiveness" gaps were positive and did not need corrective action, the negative result of the "tangibility" gap requires the attention of the LAG when organizing further trainings.

The values of the five-dimension Servqual index were compared among enterprises participating in the training organized by the LAG. In all instances, significant differences were demonstrated in the evaluated dimensions at $p<0.050$ (Table 3). Building social capital in the rural areas is the condition for stimulating the involvement of the local community in the development of the region and better use of its resources. It should be noted that trainings organized by the LAG are very popular among micro-enterprises in the analysed 9 municipalities. Respondents pointed out free admission to trainings, topics important for the development of their businesses related to the development of their region.

Table 3

**T test for weighted Servqual of surveyed enterprises in specific areas**

| Dimension/area | T test | P value |
|---|---|---|
| Tangibility (I) | -2.081 | 0.035* |
| Reliability (II) | -2.588 | 0.008* |
| Responsiveness (III) | -9.075 | 0.001* |
| Confidence (IV) | -3.711 | 0.001* |
| Empathy (V) | -6.397 | 0.001* |

where * significant difference at $p< 0.050$

Y.K. Lee (Lee et al., 2011), A. Patiar and L. Mia (2009) found that improving qualifications positively influenced behaviour and motivated mutual help. In addition, the study of S.B. MacKenzie (MacKenzie et al., 2001) demonstrated that trainings had a positive impact on improving work performance and development of organizational culture of the enterprise, and these factors had a direct impact on the quality of service. Funds allocated for LAG trainings are obtained from EU Funds, therefore it selects training companies that meet the requirements – they provide their services at a very high level, confirmed by appropriate certificates. It is worth noting that currently, an interesting LAG training project is aimed at the residents of rural areas, concerning acquiring skills in vanishing craft trades, such as cooper, weaver, wickerworker, thatcher, wattler, liquers (nalewka) producers, herbalist, saddler, stonemason, which would later contribute to opening small craft workshops with very rare specializations. According to G. Wiesinger (2007), activation, promotion or training activities conducted by the Local Action Groups are of particular importance for rural development due to the generally low level of activity and involvement of rural communities in Polish villages in local structures and unwillingness to cooperation.

## Conclusions

The situation in Polish rural areas is difficult, according to the rankings, the Eastern Poland region (the area of the Krasnik Land LAG operation) ranks at one of the last places in the European Union, according to the per capita income criterion. The LEADER approach tries to eliminate differences in the development of rural areas between regions of the European Union through the implemented LAG projects. The tasks are ambitious, their implementation depends on many factors. One of them is raising qualifications and gaining new skills by the inhabitants of rural areas, and thus – starting a business. The LAG's activity in the area of organizing training courses and study visits is very important for the development of rural areas, as well as the diversification of the income of its inhabitants.

The research carried out indicated that:

- market requirements put companies operating in rural areas ahead of the challenge related to increasing the professional competence of their employees; companies see their chances in various training programs implemented by the LAG's;

- the quality of services/products created in rural areas is of fundamental importance for the functioning of rural enterprises; it is the level of quality or customer satisfaction that determines the decision to select a service or product, and thus the existence of a given enterprise in rural areas; the use of LAG training services helps entrepreneurs to obtain the necessary knowledge for further development of their business;
- measuring the quality of services by the Servqual method helps in detecting and correcting any deficiencies in the provided training service, aimed at increasing competences or acquiring new skills; it allows to learn the expectations of potential customers and adjust the level of service to market requirements;
- the importance of trainings organized by LAGs is of great significance to their beneficiaries due to their subject matter, the selection of training companies, and often their free admission.

Local Action Groups represent the non-governmental sector, which by definition is created by people and for people. LAGs are distinguished from other organizations by one hundred percent financing of their activities from external funds, i.e., as long as a given group exists and implements the goals set in the strategy, it is supported by EU funds. This comfortable situation means that the organization, without having to worry about its own survival, successfully implements activities for the community in which it operates.

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# Life quality in the context of home environment, home economics, household, consumer science and visual art

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# Phenomenon of Paternal Involvement in the Discourse of the Educational Potential of Fatherhood

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**Abstract**: This article provides an analysis of the relevant data on the research of the phenomenon of paternal involvement. For consideration by the international scientific community, the author proposes the classification of modern studies of the phenomenon of involvement in the world humanitarian discourse. Also, the article describes the significant correlations of paternal involvement with other structural components of the construct of the educational potential of fatherhood, identified in the original author's research aimed at creating tools for assessing the educational potential of fatherhood and practical probation and verifying the validity of this technique. Having determined the direct significant correlations between the competence of fathers and the frequency and frequency of their educational and educational actions, the author conclude that the need to enhance the participation of fathers by creating the community of fathers, which will maintain the current and necessary level of motivation to participate in the system of father-child interaction.

**Keywords:** parenting, involvement, paternal involvement, the educational potential of fatherhood, father-child interaction, adult education.

## Introduction

Today, fatherhood is explored in the focuses of various sciences. In modern studies of the named phenomenology, the general characteristic of fatherhood is the concept of involvement and there are dozens of publications of other researchers that reflect the concept of paternal involvement in various qualitative aspects. H. Norman (2015), continuing the M.E. Lamb concept (Lamb, 2008), according to which paternal involvement consists of joint sessions with the child, the actual availability of the father, i.e. his real presence. Also, according to Lamb, involvement implies responsibility, understood as the need to participate in the child's life. However, in real practice, the father's motivation may be limited by various individual (internal) and external factors (his family situation, his relationship with his wife, his work schedule, the level of earnings, etc.), which indicates the multifactorial involvement and expands the classical conceptualization of involvement.

According to K. Mclaughlin, O. Muldoon (2016), one of the significant factors is the employment of the father and the modern social patterns. The researchers note that today fathers should play the role of a "new father", that is typical for the current social discourse and means active care of the children. At the same time, the society expects fathers to remain committed to their professional roles as earners and workers. The result is that modern fathers are subjected to similar pressures as women when they first appeared in the workplaces. The author notes the significant tension between the new ideals of fatherhood and its real practice, generated by expectations and the actual social situation. It is important to note that this observation is absolutely true for different contemporary cultures and societies. According to A.J. Marchin (Marchin, 2015), today, the society needs a transformation of social relations, which will lead to the removal of the contradictions between the desire of modern fathers to be engaged in the education of their children and their employment in the workplace.

The study of the gender attitudes of fathers and their correlation with the degree of involvement in the upbringing of the child, published by J.K. Karre (2016), showed that the traditional model of the father, "disappearing" at work is not effective. J.K. Karre points out the paradoxical feature of the traditional egalitarian model and gender (primarily patriarchal) norms: the more men demonstrate commitment to the traditional image of the family, in fact, the less they are involved in the real upbringing of children.

Many publications are devoted to the problem of combining the father's upbringing and his work schedule in various aspects, including those considering not only the situation of exceptional workload, but also the paternity leave, which becomes popular in some western societies. In different aspects the correlation between the degree of father's involvement and his professional workload are investigated by S. Tanaka, J. Waldfogel (2007), J. Castillo, G. Welch, C. Sarver (2011), E. Lind, L. Parlin (2017), B.S. McGill (2014), J.B. Stykes (2015), G. Russell, C. Hwang (2004).

It is extremely difficult to draw up a holistic matrix of even the main research focuses in the question of clarification, definition, establishment and strong determination of the inner essence of paternal involvement. At the same time, **the actual thematic topology of studies of the nature and specificity of paternal involvement**, analysed by the author (as a result of the study of more than 300 modern scientific studies around the world, since 2000) are:

- analysis of paternal involvement in the situation of divorce or non-marital parenthood (Troilo, Coleman, 2013), as well as the situation of an "absent father";
- studies of the specifics of paternal involvement in whole (non-fragile) families (Hohmann-Marriott, 2011);
- studies of the educational involvement of single fathers or fathers in difficult life situations (Bronte-Tinkew, Scott, Lilja, 2010; Devault, Forget, Dubeau, 2015);
- research on the involvement of fathers in correlation with the aspect of family traditions in different national cultures (Ho et al., 2010; Nakazawa, Shwalb, 2013; Hofferth et al., 2013);
- analysis of the relationship between the quality of paternal involvement with the level of his income and professional employment (Cowan et al., 2009);
- scientific publications on the involvement of the father in his correlation with gender and sibling, age status of children (Paulson, Dauber, Leiferman, 2006);
- Comparative work on the comparison of the essence of paternal and maternal involvement and marital interaction in the aspect of child-rearing (McBride, Schoppe, Rane, 2002);
- studies of the influence of paternal involvement on the development of the child's personality in cognitive, affective, social and other aspects (Sarkadi et al., 2007);
- scientific analysis of father's involvement in the situation of the first experience of parenthood, and analysis paternal attitudes in the prenatal and postnatal period (Doherty, Erickson, LaRossa, 2006; Bich, Hoa, Malqvist, 2014);
- works devoted to the attempt of general theoretical conceptualization of the concept of paternal involvement in the mainstream of psychological and sociological sciences (Day, Lamb, 2004; Bulanda, 2004; Milkie, Denny, 2014).

The aim of the study is to identify significant correlations of paternal involvement with other structural components of the construct of the educational potential of fatherhood and to determine the direct significant correlations between the competence of fathers and the frequency and frequency of their educational and educational actions.

## Methodology

In addition to the analysis of modern scientific literature and the construction of an actual classification of studies devoted to the phenomenon of involvement, the author conducted their own research aimed at creating tools for assessing the educational potential of fatherhood and practical probation and verifying the validity of this technique. The structural representation of the concept of educational potential of fatherhood is described in the article " Educational potential of fatherhood: conceptual foundations of research and support» of V.I. Zagvyazinsky, A.D. Chekhonin (2017).

By implementing a public survey in which fathers take part, the author builds the universal model of fatherhood, in which involvement is manifested as its structural part. Today, more than 700 people from different cities of Russia and abroad have been interviewed in personal conversations with respondents in writing, through social networks and the Internet. Answering the question "what does it mean to be a father?", men were defined in opinions on three positions – activity (concrete forms of involvement and interaction), meanings and ideals of fatherhood.

The author received a lot of answers (more than 2000 variants), the semantic classification of which allowed to identify three main markers of fatherhood: educational actions (what actions involves paternity), ideal ideas about child upbringing and education (how paternal involvement should be updated), and the motives and meanings of fatherhood (why and what for the father should be involved in the upbringing of the child).

In turn, paternal involvement, as a component of the actualized educational potential of fatherhood, according to the respondents ' answers is structured on the following points:

- direct interaction between the father and the child (physical contact in joint work, games, sports, etc.)
- communication with the child and mentoring (story, dialogues with the child, active listening, etc.)
- initiative and interest (organization by the father of events in the life of a child with educational and entertainment vector - children's parties, concerts, etc.)
- active care of the child (assistance of the father, participation in the treatment of the child, financial support, etc.)

The author presented a methodology for assessing the educational potential of fatherhood, a questionnaire consisting of 213 questions. The practical approbation of the method in Russia allowed to determine several interesting aspects of the reflection of father's involvement, confirmed by the methods of mathematical statistics. The survey was conducted with participation of 200 men-fathers of different age, social and marital status. For statistical data analysis and presentation of research results, the author used the software package SPSS ("Statistical Package for the Social Sciences"), version 23 for Windows.

**Results and Discussion**

Through the processing of the survey results, indicators of descriptive statistics of such factors of educational actions as interaction, communication and mentoring, initiative and interest, support and care were obtained. Each of the factors was assessed in terms of competence and periodicity.

The biggest level of competence of fathers is observed in their support and care of the child. This figure ranges from 1.14 to 5 points relative to the average of 3.32. At the same time, half of the respondents have no less than 3.43 points. However, the variation of this feature is also the largest, the average values deviate from the average by 0.71 points. As the most undeveloped factor, fathers evaluate their competence in the aspects of initiative and interest. The value of this factor in half of the respondents does not exceed 2.71 points (Table 1).

Table 1

**Descriptive statistics of competence of educational and upbringing actions of father**

| | | **Interaction** | **Communication and mentoring** | **Initiative and interest** | **Support and care** |
|---|---|---|---|---|---|
| Mean | | 3,02 | 2,95 | 2,66 | 3,32 |
| Median | | 3,09 | 2,95 | 2,71 | 3,43 |
| Std. Deviation | | 0,67 | 0,64 | 0,66 | 0,71 |
| Range | | 3,55 | 3,45 | 3,43 | 3,86 |
| Minimum | | 1,27 | 1,18 | 1,14 | 1,14 |
| Maximum | | 4,82 | 4,64 | 4,57 | 5,00 |
| Percentiles | 25 | 2,56 | 2,55 | 2,20 | 2,86 |
| | 50 | 3,09 | 2,95 | 2,71 | 3,43 |
| | 75 | 3,53 | 3,37 | 3,14 | 3,86 |

The respondents rate the frequency of their support and care for children most highly. The lowest – initiative and interest (Table 2).

Table 2

**Descriptive statistics of the periodicity of educational and upbringing actions of father**

| | | **Interaction** | **Communication and mentoring** | **Initiative and interest** | **Support and care** |
|---|---|---|---|---|---|
| Mean | | 2,96 | 2,92 | 2,62 | 3,22 |
| Median | | 2,91 | 2,91 | 2,57 | 3,29 |
| Std. Deviation | | 0,75 | 0,71 | 0,71 | 0,81 |
| Range | | 6,45 | 3,55 | 3,43 | 3,86 |
| Minimum | | 1,27 | 1,18 | 1,14 | 1,14 |
| Maximum | | 7,73 | 4,73 | 4,57 | 5,00 |
| Percentiles | 25 | 2,55 | 2,36 | 2,14 | 2,57 |
| | 50 | 2,91 | 2,91 | 2,57 | 3,29 |
| | 75 | 3,36 | 3,36 | 3,00 | 3,86 |

There are significant differences between the assessment of competence and the periodicity of this factor. The level of competence of the respondents is significantly higher than the frequency of these educational activities. At the same time, there are no significant differences in the assessment of periodicity and competence in the assessment of other factors (Table 3).

Table 3

**Results of application of the Student's criterion for dependent samples (the levels of competence of fathers and the periodicity of educational and upbringing actions of father)**

| | | Sig. (2-tailed) |
|---|---|---|
| Pair 1 | Father-child interaction (competence) - Father-child interaction (periodicity) | 0,068 |
| Pair 2 | Communication and mentoring (competence) - Communication and mentoring (periodicity) | 0,191 |
| Pair 3 | Initiative and interest (competence) - Initiative and interest (periodicity) | 0,151 |
| Pair 4 | Support and care (competence) - Support and care (periodicity) | 0,004 |

Between the competence of fathers and the periodicity of educational and upbringing actions there are direct significant strong correlations. The higher the level of fathers` competence the higher periodicity of appropriate educational and upbringing actions is shown (Table 4, where ** means significant correlation).

Table 4

**Coefficients of the correlation between the competence of fathers and the periodicity of educational and upbringing actions of father**

| | | Correlation |
|---|---|---|
| Pair 1 | Father-child interaction (competence) & Father-child interaction (periodicity) | 0,762** |
| Pair 2 | Communication and mentoring (competence) & Communication and mentoring (periodicity) | 0,836** |
| Pair 3 | Initiative and interest (competence) & Initiative and interest (periodicity) | 0,814** |
| Pair 4 | Support and care (competence) & Support and care (periodicity) | 0,800** |

The results allow to draw the following interpretations:

- There are direct significant correlations between the competence of fathers and the frequency and periodicity of their educational and upbringing actions. Therefore, in order to increase the involvement of fathers, it is necessary to improve their competence in the issues of children's upbringing. In this sense, the most productive approach, according to the author, is to create a reference community of fathers, which will maintain the current and necessary level of motivation for involvement as an approved system of action. Also, this community will create a system of regular activities aimed at universal education of the father's audience, according to its own requests.
- The results of the study show that the factor of interaction between fathers and children in the aspect of initiative and interest is reflexively assessed by fathers as the lowest. In this regard, the thesis proposed above, becomes even more relevant. Interest in the upbringing of the child, being uncharacteristic for many men, should be "fixed" by encouragement through its recognition in the reference community as dignity-base.
- The level of competence on all factors is estimated by fathers higher, than the level of frequency of educational actions. In further studies, it is necessary to analyse what factors do not allow fathers to fully realize their competence, as well as what factors actualize it.

## Conclusions

The creation of conditions for qualitative improvement of the father's engagement is the actual goal. It can be achieved in the systemic interaction of a wide range of social institutions. Its essence is to ensure the creation of reference dialogue communities of fathers, support educational and training work, providing platforms for father-child and family interaction of long-term functioning. These social institutions should be the family, the education system, social support institutions, etc. At the same time, the social work should be based on the integration of the results of various studies of paternity, which will build it on the basis of actual arguments, logic and understanding of the necessary practical efforts. Paternal involvement is a necessary subject of modern research of the family Institute. Today it is becoming obvious that its absence leads to serious difficulties in the development of the child. The proposed research data of the author are taken into account in their current project "Father's meet-up" and are resonant in the real social practice of the Federal Council of fathers of Russia.

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# Research of Nutritional Habits of Prospective teachers

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**Abstract**: In modern society healthy nutrition is a particularly topical issue as it is one of the key elements of a healthy lifestyle which determines a person's well-being. One of the tasks established in the European Region Health Policy "Health for All in the 21st Century" is to promote habits of healthy nutrition. The goal of the research is to identify nutritional habits of the prospective teachers. 631 prospective teachers studying at Vytautas Magnus University took part in the questionnaire survey. The period of studies is closely related to the study process, the change of the place of residence, and that often adversely affects the dietary regime. Nutritional habits during the study period are partly formed by the training institution as well as the food culture tradition spread among the students. Involvement in activities and the change of the place of residence influenced nutritional habits of prospective teachers. Having analysed the survey data, it is possible to state that most students - prospective teachers - choose food considering its taste characteristics and the price. The students choose various food products and try to follow the recommendations for healthy nutrition.

**Keywords**: nutritional habits, prospective teachers, university education.

## Introduction

Researchers pay particular attention to strengthening healthy nutrition and healthy lifestyle as that is one of the key elements of a healthy lifestyle which determines a person's well-being.

One of the objectives of World Health Organization (WHO) European Region Health Policy "Health for All in the 21st Century" is by 2020 to improve health of young people so that they could play their role in the society more successfully (Health 2020…, 2013). Moreover, healthy and employable people are a guarantee for the country's economic and sustainable development; therefore, preservation and strengthening of the health of children and young people is emphasized in the strategic documents of the country (Lithuania's Progress Strategy…, 2012). Prospective teachers should take particular care of their nutrition because they will serve as an example for their students in the future.

A study period is a segment of the social life related with a number of new challenges, new impressions and habits, formation of lifestyle changes; therefore, students' nutrition is of great interest for many researchers (Porozovs, 2018). Proper nutrition provides a human with energy, necessary nutrients which ensure proper physical condition, permanent cell regeneration whereas poor nutrition increases a risk of development of chronic cardiovascular diseases (Hughes, 2012). According to H. Baker-Henningham, S. Grantham-McGregor (2004), healthy nutrition is one of the key elements of healthy lifestyle, it helps to preserve and strengthen health, to prevent many diseases, and it is the basis of health.

Recently, a large number of researches analysing students' nutrition have been conducted. Several authors carried out the assessment of students' nutritional habits (Dobrovolskij, Stukas, 2013; Ansari, Stock, Mikolajszyk, 2012; Plavina, Karklina, 2018) and researched the indices of students' healthy lifestyle from various perspectives (Varela-Mato et al., 2012; Zheng et al., 2014).

One of the most important factors determining human health and quality of life is proper nutritional habits, whereas unbalanced nutrition impacts the development of certain diseases, incidence of chronic non-infectious diseases (e. g. diabetes mellitus, cardiovascular diseases, etc.) as well as increases mortality. Nutrition is becoming a very important factor affecting all age groups. Assessing the pathogenesis of many diseases in every stage of life, balanced nutrition and proper habits have a favourable impact on human health (Cecchini et al., 2010).

R. Proskuviene, J. Cesnaviciene (2015) researched nutritional peculiarities of young people who have chosen pedagogical studies. The research data demonstrated that 68.5 percent of young people who have chosen pedagogical studies consider healthy nutrition important and state that they try to eat healthy. However, the research also revealed that a significant share of students do not have the formed healthy nutritional habits and do not follow the recommendations for healthy nutrition. The goal of the research is to identify nutritional habits of prospective teachers.

**Methodology**

In order to research nutritional habits of prospective teachers a quantitative research was carried out, and a questionnaire survey method was chosen. The research took place in March – April 2017. 631 prospective teachers of **the Groups of the Study Programmes of Natural Science Education (NSE), Sports Education (SE), Pre-School and Primary Education** (PSPE), **Linguistic and Artistic Education (LAE)** of Vytautas Magnus University (former Lithuanian University of Educational Sciences) participated in the questionnaire survey. 1st – 4th year students participated in the research: 451 girls and 180 boys.

The students took part in the survey voluntarily, and the questionnaire was anonymous so that the respondents could express their viewpoint **unreservedly**. The goals and methodology of the research were explained to the students.

To research nutritional habits of prospective teachers, a theoretical analysis of scientific literature was conducted first and accordingly a semi-closed questionnaire was created. It consisted of a demographic data block (data of the researched subjects) and a block of closed and open questions in order to research nutritional peculiarities of the students. The questions were about the day's routine and dietary regime, nutritional habits, consumed food products and drinks, and the causes of unhealthy nutrition.

The statistical data were processed using the SPSS (Statistical Package for Social Sciences, 17.0) programme.

**Results and Discussion**

The day's routine is an integral complex of healthy lifestyle factors that has an impact on nutritional habits. The students had an opportunity to write down the day's routine of working days and rest days (Table 1). The research aimed at finding out the day's routine of prospective teachers as well as identifying the factors potentially affecting the students' nutritional habits. The obtained results demonstrate that students spend 3–6 hours at the university; however, they spend not less time for individual studies, i. e. 2–5 hours per day. According to the respondents, from 2 to 7 hours a day are devoted to leisure. At weekends and on holidays students can afford to relax longer – from 10 to 15 hours. The approximate sleep duration is from 6 to 10 hours: that depends on the day of the week and the day's routine.

Table 1

**Students' Day's Routine**

| Activities | Hours/ per day |
|---|---|
| Time spent at the university | 3–6 hours |
| Time devoted to individual studies | 2–5 hours |
| Duration of leisure time: | |
| *on working days* | 2–7 hours |
| *at weekends / on holidays* | 10–15 hours |
| Sleep duration | 6–10 hours |

Having summarized the results of the survey, it can be stated that one of the factors influencing nutritional habits is prospective teachers' involvement in activities.

In order to learn about nutritional habits, the students were asked: "Do you cook food yourself?" (Figure 1). The results of the survey demonstrated that 96 percent of the students living in rented accommodations and 94 percent of those living in dormitories cook food themselves; however, 92.9 percent of the students living together with parents / foster-parents do not cook food themselves.

The results of the research revealed that the students living separately from their parents cook food themselves, whereas the students living with their parents / foster-parents choose the food cooked by others ($\chi^2 = 2.768$; df = 2; $p < 0.251$).

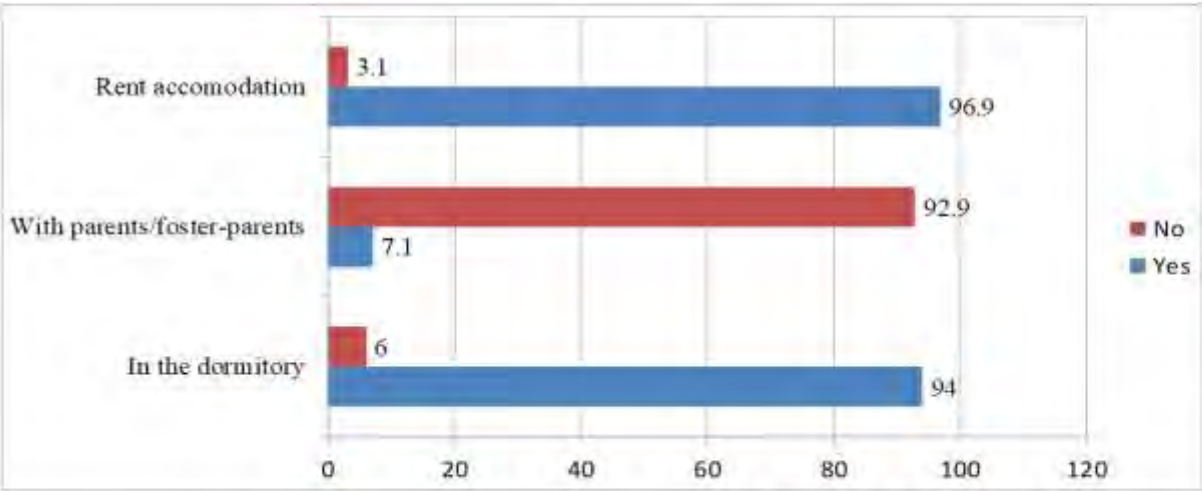


Figure 1. Distribution of the students' answers to the question "Do you cook food yourself?" (percent).

WHO recommendations indicate that an adult person should eat three or four times a day: breakfast, lunch (or to have afternoon meal), lunch and dinner. A human needs most energy during the day when she or he works or studies. In order to find out the rhythm of nutrition, the respondents were asked a question: "How often do you eat a day?" The obtained survey data showed that most students of all groups of the study programmes have breakfast, lunch and dinner: NSE – 91.1 percent, LAE – 89.3 percent, SE – 75 percent, and PSPE – 80 percent. Only minority of the students have breakfast and dinner only or do not have breakfast at all. Thus, it can be stated that students try to eat rationally – three or four times a day, no statistically significant differences between groups of the study programmes were established ($\chi^2 = 22.657$; df = 4; $p < 0.000$). R. Proskuviene and J. Cesnaviciene researched nutritional habits of students (prospective teachers) (Proskuviene, Cesnaviciene, 2015). The results of the research demonstrated that only 61.1 percent of the students had breakfast every day, 24.8 percent of the respondents did their best to eat at the same time, and 15 percent of young people ate only 1–2 times a day.

We asked how much time students spend for lunch on the average. The survey data demonstrate that on the average students spend 20 minutes for lunch.

Snacking is the most common students' habit in their leisure time; therefore, when analysing nutritional habits, it is important to identify which food products are chosen as snacks. Thus, the students were asked a question: "What snacks do you choose between breakfast, lunch and dinner?", and options for possible answers were provided (Figure 2).

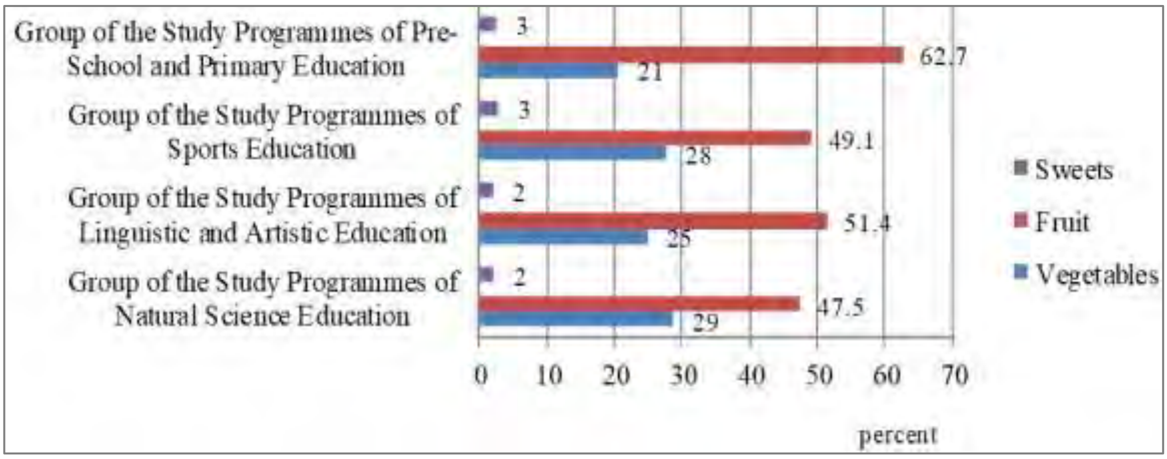


Figure 2. Distribution of the students' answers to the question "What snacks do you choose between breakfast, lunch and dinner?" (percent).

The results of the survey demonstrated that usually students tend to choose fruit as snacks: PSPE – 62.7 percent, LAE – 51.4 percent, SE – 49.1 percent, and NSE – 47.5 percent. 25.7 percent of the respondents choose vegetables, 19.5 percent of the research participants snack on chips, and only a small share of the respondents prefer nuts and sweets.

Water is a vitally necessary nutritional component that performs very important physiological functions in the body. Therefore, the research aimed at finding out whether students follow WHO recommendations to drink pure water (Figure 3). The obtained research results demonstrate that less than half of the surveyed prospective teachers choose water, 37.6 percent stated that they usually drink coffee or tea. Only a small share of the respondents prefers juice – 2.5 percent.

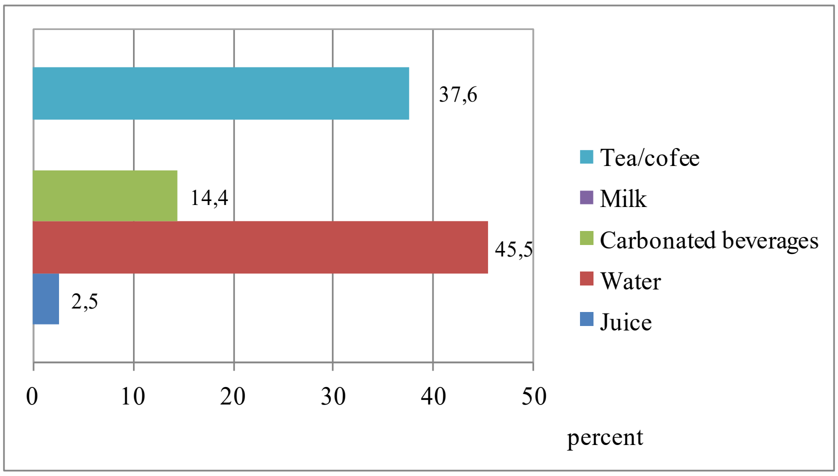


Figure 3. Distribution of the students' answers to the question "What drinks do you choose?" (percent).

One of the goals of the research was to find out the frequency of consumption of beverages which are harmful for health; therefore, the respondents were asked a question: "How often do you consume energy drinks?" and options for possible answers were provided. It turned out that 36.5 percent of the students consume these beverages more than 3 times a week, 20 percent of the students drink them 1–2 times a week, and 7.4 percent of the students do not refuse energy drinks several times a year.

Analysing the students' nutritional habits, it is important to determine how much water students drink per day. In WHO recommendations it is emphasized that an adult person is recommended to drink 2 litres of water a day, i. e. about 8 glasses. The obtained results of the research show that more than one third of the respondents (35.4 percent) drink 1 litre of water per day, i. e. a half of the recommended amount, and only 29.3 percent consume 2 litres of water, i. e. a full daily intake.

More and more attention is paid to the quality of food products. Having compared the main criteria according to which the respondents of all four groups of the study programmes were choosing food products, it turned out that most prospective teachers first of all take into account taste characteristics of food products: PSPE – 52 percent, LAE – 48.6 percent, SE – 47.2 percent, and NSE – 44.6 percent.

Another integral factor determining the choice of the respondents is the price of the product (SE – 22 percent, NSE – 20.8 percent, PSPE – 20.6 percent, and LAE – 20.6 percent). A tendency was observed that girls are concerned about health improvement more than boys ($p<0.05$).

Seeking to find out the students' nutritional habits, to determine what they eat, a list of products and options for possible answers were provided. The results of the research demonstrated that students eat fish products at least once a week (42.8 percent), although it is recommended to eat fish twice or three times. A share of the respondents chooses smoked meat products (33 percent) once a week, cereal products (28.2 percent) and potatoes (28.2 percent) – once or twice a week. The analysis of the survey showed that one third (35.5 percent) of the students receive fat together with food.

According to the research data, most frequently, i. e. 3–5 times a week, the respondents eat fresh vegetables – 51.3 percent, meat products – 40.9 percent and milk products – 30.4 percent. Thus, it can be stated that students, except the cases when they lack time, try to follow the recommendations for healthy nutrition.

To find out what determines unhealthy nutrition, the respondents were asked a question: "What, in your opinion, are possible reasons of unhealthy nutrition?" Having analysed the answers, it was established that lack of time has the greatest impact on inappropriate nutritional habits of the respondents – 65.8 percent, almost half of the respondents having participated in the survey (49.3 percent) partly agree that the choice is influenced by negative influence of advertisements, and 35.3 percent of the respondents indicated that unhealthy nutritional habits are determined by the financial situation. In the opinion of more than half (51.8 percent) of the respondents, unhealthy nutrition does not have any negative impact on their health in general.

According to the data of the conducted analysis, two most important factors determining unhealthy nutrition are: lack of time (identified by 65.8 percent of the respondents) and lack of will (51.8 percent of the respondents).

**Conclusions**

1. The period of studies is closely related to the study process, the change of the place of residence, and that often adversely affects the dietary regime. Nutritional habits during the study period are partly formed by the training institution as well as the food culture tradition spread among the students. Studies are associated with students' involvement in numerous activities, mental and physical activity, and the assumed responsibility for purchasing food and cooking has a negative impact on students' nutritional habits: frequently young people do not pay sufficient attention to their health, do not have enough time to eat, do not follow dietary regime.
2. About a half of the surveyed students of NSE, SE, LAE and PSPE having started to study changed their nutritional habits. Majority of the students of all the groups of the study programmes (75 - 91 percent) indicated that they follow their dietary regime, a big share of the students (70 percent.) devote 20 minutes for having lunch, more than a half of the students (47.5 - 62.7 percent) tend to choose some fruit for a snack, and less than one-third of the students (25.7 percent) prefer vegetables. Only 19.5 percent of the surveyed students eat chips as a snack. Having analysed the survey data, it is possible to state that most students choose food considering its taste characteristics and the price. The students choose various food products and try to follow the recommendations for healthy nutrition.
3. Involvement in activities and the change of the place of residence influenced nutritional habits of the prospective teachers. The main factors having impact on the formation of inappropriate nutritional habits indicated by the prospective teachers were the following ones: lack of time (65.8 percent) and the financial situation (35.5 percent), a provision that unhealthy nutrition will not harm them (37.5 percent). Having compared the obtained results among all groups of the study programmes, statistically significant differences were not found.

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# The Understanding of Life Quality by Latvian Seniors Nowadays

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**Abstract**: An increase in the average life expectancy and, hence, the number of elderly but still able-to-work people, and the relatively low assessment of lifelong learning on the increase of life quality indicate the topicality of the point of view of the representatives of the gerontogenesis period. The main aim of the article is to clarify the perceptions of the Latvian seniors on the quality of life, its contributing and restrictive aspects. In order to verify the understanding of life quality by seniors in today's situation, questionnaires with incomplete sentences were created. Hundred sixty seniors aged 70 to 95 with and without higher education were surveyed. Although a popular opinion among seniors is that the quality of life depends on the person himself, on his integrity, on his attitude towards other people and life in general, of his ability to choose the right job for himself and work hard, as well as of his care for his health and willingness to socialize, the restrictive aspects on quality of life are largely observed in external factors. For many seniors, their perception of life has been affected by a significant loss experience. Besides health and financial problems seniors mention an irresolvable existential problem, namely, "lost" time. In comparison with young people, seniors consider as aspects for having a good life – health, physical activity, satisfaction with work to be done (not related to remuneration), living space, nature and access to the environment – relatively more often, while less often – self-improvement and education. There are also several significant differences in the notion of life quality for seniors with higher education and seniors without higher education.

**Keywords**: old age, quality of life, personal understanding, experience, adult education.

## Introduction

Both the general convention on the value of cultural heritage for society of the Council of Europe (Council of Europe…, 2005) and the National development plan of Latvia (National Development Plan…, 2012, 13) consider ensuring quality of life as a priority. The need to improve and harmonize the quality of life for people and society is also highlighted in the memorandum on lifelong learning as formulated by the European Commission's working group (A memorandum on…, 2000). However, according to the results of the research on the life quality of the population of Latvia, the evaluation of lifelong learning in own quality of life is relatively low (Bela-Krumina et al., 2006, 24). It poses the question of the perceptions of different generations about their quality of life and the importance of education in increasing it. Taking into consideration the average life expectancy and consequently the increase in the number of elderly but still able-to-work people, the European "oversight of nations" and the massive emigration of young and middle-aged people from Latvia abroad, the views of the representatives of old age are not only relevant in the context of lifelong learning, but also in the context of the development of human resources of the state. Despite the fact that the general trend of an aging population is not changeable, negative or ageist attitudes towards older people are widespread and they negatively affect older people's physical and mental health (Officer et al., 2016). This points to the need to pay particular attention to the current issues of gerontogenesis (growing old) period and to review stereotypes of the seniors.

So far, it has been discovered that for elder people with higher age, the evaluations of their quality of life for Latvian population is getting worse (Bela-Krumina et al., 2006, 23). One of the problems of social inclusion for the older generation is also employers' views about the falling work efficiency of seniors (Burceva, 2009). In a healthy aging process, it is important for a person to maintain the position of the lifespan, rather than to change it by 180 degrees, turning it into a care object and public money waster. Many seniors want to organize their own living, to structure their daily lives, to take care of their quality of life, including health and its maintenance. In general, a senior often feels like an active, full-time employee who wants to realize his accumulated knowledge and experience in his specialty for a job that is important for society and whose potential has not yet been fully exploited. Thus, the consumer's position of the senior is in some way imposed. In turn, the results of A. Grīnfelde doctoral thesis indicate that the factors affecting the quality of life of the retired people in Latvia's regions are the material security, health and links with family, friends and neighbours, and that the retired people with a higher degree of education are less concerned about their wellbeing and income (Grinfelde, 2010).

Taking into account the importance of human resources, including the potential of retired people in the future of a country and the relevance of its quality of life, the author puts forward the research aim: to clarify the comprehension of life quality and its contributing and restrictive aspects among the seniors in Latvia nowadays.

## Methodology

Although the average life expectancy in Latvia among the EU member states is the lowest, in the last ten years it has continued to grow and over the last decade the average age of death in Latvia has exceeded the age of 70 (Demography: collection of…, 2016, 89). This determined the choice of the basis for the research – those representatives of old age who were 70 or older were selected for the study. According to the cluster random sampling, seniors from seven boarding houses and associations as well as individuals not involved in any associations in Latvian cities and rural areas were invited to participate in the study. Overall, responses were collected from 160 people aged 70 to 95 (median – 77 years). Eighty of them have higher education, eighty respondents have secondary, secondary vocational, elementary or incomplete primary education. Sixty-three percent of respondents are women. The fact that there are more women in the study was affected by the proportional distribution of women in the respective age group in Latvia – according to the data of the Central Statistical Bureau 70 % of all Latvians are women in the age group of 69 or older (Women and men..., 2016, 8).

Taking into account that human satisfaction with life can be different in the same objective circumstances, and, therefore, relatively independent of them, the subjective understanding of the quality of life of individuals is revealed using an empirical study. A comparison of the results of the previous studies on the quality of life suggests that using different standards in the research the results of subjective assessments of quality of life can vary significantly (Wrosch, Scheier, 2003). This justifies the abandonment of standardized methods in this study and the choice of unfinished sentences. In order to determine the comprehension of life quality among seniors nowadays, a questionnaire was created with 3 incomplete sentences: 1) "I believe that the human life is of good quality if…", 2) "The quality of my life is promoted by…", 3) "The quality of my life is limited by…" Seniors were asked to complete these sentences according to their own preconceptions. Respecting the age and health of the respondents, seniors were offered the opportunity to answer the questions verbally, while the author wrote down their answers. The wish of the seniors, people with special needs and palliative patients were also respected by listening to their stories in a narrative mode of their own life and difficulties. Before the survey respondents were informed that the aim of the study was to summarize their perceptions of the quality of life, that the participation in this study is anonymous and voluntary and that respondents' answers will be used only in an aggregated form. Oral informed consent was asked at the meeting, when presenting the research questions. In addition to this information, at the nursing homes the seniors were informed that refusal to participate in this study or discontinuation of participation in the survey will not have any adverse effect on the quality of health provided to the patients. During the content analysis of the questionnaires, categories on quality of life were determined and the frequency of how often these were mentioned was clarified. Non-parametric inferential $\chi^2$ test was used to compare the frequency of the categories and the statistical significance of the relationships between variables.

## Results and Discussions

Comparing the frequency of the categories of quality of life identified in the study, the $\chi^2$ test in the seniors' group did not show statistically significant differences between the genders ($p = 0{,}906$). In some categories, there are statistically significant differences between seniors with and without higher education. They are listed in the description of the particular category. The graphics display only those categories that were mentioned by 10% or more of the total number of seniors questioned.

When finalizing the first sentence: ***"I believe that the human life is of good quality if…"***, most of the seniors (e.g., 41 %) mentioned the importance of the inner human potential or one's personality traits (Figure 1). Life is good if the person himself is good – he has a good character and is good to others, he lives in harmony with himself and the world, is able to appreciate what he has, if he "manages to balance the practical side of his life with his spiritual interests", combine his interests and official work. A person lives a qualitative life, if he is joyous, independent, internally calm and honest ("going according to the right line"), if his life is not immoral: "without addiction" and "bad habits".

The second most frequently mentioned category of life quality is material security (27 %). Material security for seniors basically means a good pension and sufficient purchasing power. This is important for seniors "because medical treatment requires money". Seniors' responses show a link between the material security and the ability to be independent, namely, from care provided by social organizations and children. This category has been noted more often by seniors without higher education ($p = 0{,}02$).

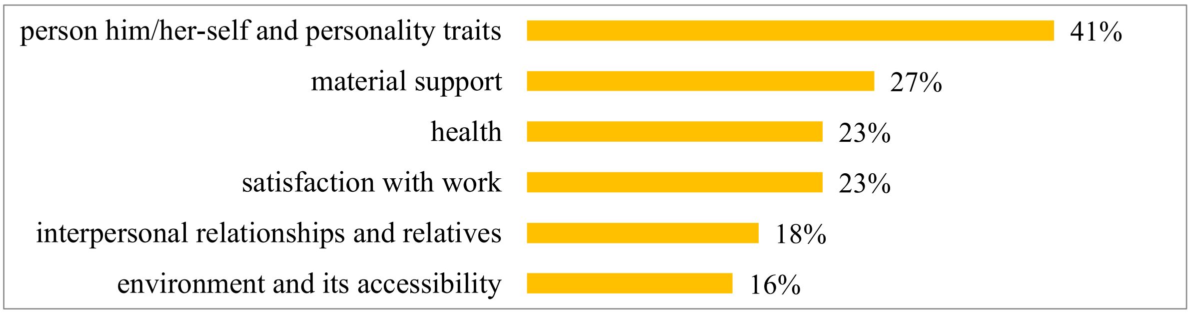


Figure 1. Most frequently mentioned life quality categories when completing the sentence
*"I believe that the human life is of good quality if…"*
(statistically significant differences between the frequencies, according to the $\chi^2$ test with $p < 0{,}001$)

Satisfaction with their work seems to be significant for seniors – both in terms of professional and social activities (23 %). (In this category, statements about one's sense of satisfaction with the progress made, satisfaction with work itself, rather than the financial gains, were grouped.) Life is qualitative if "one does his work with love". Working in the profession, or at least fulfilling social duties in old age, is still important because it means being socially active, participating in life and "standing on one's own feet".

Health is as significant for seniors (23 %), moreover, not only physical health, but also mental health – so that a person is "able to think". Most often, seniors simply highlight the existence of health, but in some cases its significance is associated with lack of pain. Health makes life better because one can "walk" and "serve himself", that is, health gives the person an opportunity to be independent. It is interesting to note that seniors without higher education mentioned this category three times more often than seniors with higher education ($p < 0{,}001$). People of old age find important not only their own health, but also the health of their children and grandchildren. This, in turn, is one of the aspects of the fifth most frequently mentioned category of life quality (interpersonal relationships and relatives – 18 %). This category is based on the perceptions that in order to have a good life one needs to have his loved ones "feel good" and that he can expect to receive support from them, that "everything is good in the family", that there is satisfaction, and that the children are happy.

As a separate indicator on life quality one can identify in seniors' responses the environment and its accessibility (16 %). It is both an appropriate space for living and environmental security, which inter alia involves social and medical care, as well as the most necessary things in life – good food, fresh air, the possibility to get out of the house when the sun is shining (this may be related to, for example, the presence of a lift, a wheelchair), contact with living nature, etc. In rural areas, transport is noted as an important aspect of environmental accessibility. Self-improvement and education, emphasizing the desire to learn and not avoid one's experience, is mentioned as important factor for life quality by 14% of seniors with higher education, but only 3% of seniors with secondary education ($p = 0{,}025$). Less often, finishing the first sentence, quality of life is related to youth, pleasure, luck, lack of suffering, adequate time planning, travel, self-realization and trust in God.

The endings of the second and the third sentence specify the content and importance of the life quality aspects mentioned in the first sentence. These endings reveal a few other essential categories of quality of life, and more clearly outline the impact of life experience on the perceptions of quality of life, which is manifested in comparison with the understanding of the quality of life expressed by young people aged 20-24, completing the same unfinished sentences (Veide, 2016).

Half (49 %) of all the seniors, when completing the sentence ***"The quality of my life is promoted by..."***, mention interpersonal relationships and relatives (Figure 2). The presence of children and grandchildren for seniors means "someone to live for". Often, the contact with them is not so frequent, but also such individual cases when, for example, "the son comes from to visit from Ireland", is enough to mention it as the first aspect on promoting the quality of life. Communication with children and grandchildren provides a lot of positive emotions. More often, the help and support of relatives, their children or close colleagues is noted, especially their emotional support, because they are intelligent, joyful and "cosy". Less frequently this category refers to their own ability to take care of and support the loved ones. As often as communication with family, seniors also mention socializing opportunities outside the family, good attitude from the surrounding people (in a nursing home or in a community) and interesting conversations with "wise people". Seniors with higher education mention social contacts in good relationships more often than those without (p = 0,007), in this respect, less distinct from the students.

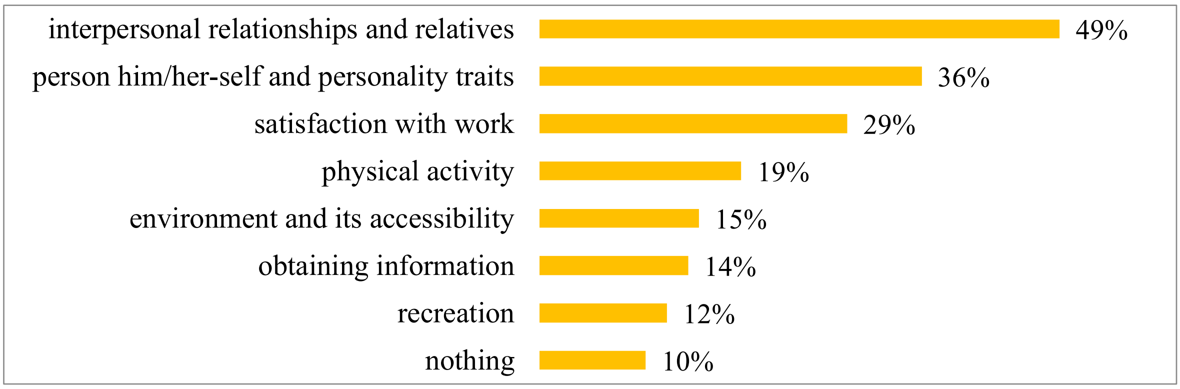


Figure 2. Most frequently mentioned life quality categories when completing the sentence *„The quality of my life is promoted by…"*
(statistically significant differences between the frequencies, according to the $\chi^2$ test with p < 0,001)

Similar as in the group of students, slightly more than third (36 %) of all seniors consider themselves, their attitudes and their personality traits, such as optimism, friendliness, and inner freedom, as promoting their quality of life. However, content wise this category reveals three differences when compared to the completed sentences by seniors and students. First of all, seniors can indicate their interest and certain commitment, but they do not mention "purposefulness" or "ability to realize goals". Secondly, honesty appears in the seniors' group as one of the most frequently mentioned qualities that promotes life quality. It concerns both the moral lifestyle and the ability to recognize own mistakes. This is postulated as the result of the personal experience of "what will you sow, you will mow". And thirdly, the topicality of the ability to service oneself can be noted in the seniors' group. The "awareness that I can" is no longer relevant with regards to some ambitious professional goals, but to a more mundane social functioning. Apparently, seniors who are focusing on the professional success in their lives are aware that professional goals have already been achieved as much as possible, while other goals, which have not been achieved, most likely will not be reached. The achievement is evidenced by the fact that when talking about promoters of life quality seniors mention their professional activities, that is, satisfaction with their work (29 %), twice as often as young people. Some seniors also very directly and with satisfaction highlight the success at their work (because "not everyone is good at it"), their sense of contentment for a qualitatively done job. Often this is a retrospective view, as for the majority of the respondents the active part of their career is already over. However, this does not mean that the quality of life for seniors, in their opinion, is promoted only by the good memories of the achieved things at work. For most seniors, the satisfaction related to work is linked to the continuation of the activities – at home, in the garden, doing rural work, or focusing more on creative activities – undertakings that these seniors previously did not have time for. The feeling of high-quality living is also associated with social work, when the main motive becomes the opportunity to serve others. In some cases, evidence is given that only now – after age of 70 – "finally one can do what he has been interested in for all his life and that he could not do earlier due to work or children" or grandchildren, and have a real pleasure in doing that. Twice as often as the young people seniors mention physical activities (19 %) as important promoters of life quality. Their motives can be pleasure for the ability, regardless of age, to preserve the body's mobility, therapeutic care for one's health and additional opportunities for socializing, such as attending dance classes.

In order to experience life as a good one, an important factor for seniors is the environment and access to it (15 %). Basically, a satisfactory place for living is mentioned (it can be both a house and a room in a nursing home) – when it is warm, clean, peaceful and calm, as well as the available nature – not just a "flower that grows right outside the window" and that "the sun shines and the birds are tweeting", but also the opportunity to go to the countryside without any restrictions on movement. If every second student mentioned self-improvement and education as a promoter for the quality of life, then only one in ten seniors with the higher education aged 70 or more will mention this aspect. Instead, seniors mention more often gaining and accumulating general information that is not directly related to personal experience and personality development (14 % of all seniors). For a good life in this case for seniors it is enough to be interested in public events, watching television broadcasts, listening to the radio news or reading news from the press, while less often – reading books of various kinds. Although less frequently mentioned than the opportunity to work and the pleasure of active work, an important category for promoting good life quality for seniors is also recreation (12 %) – the fact that there is no need to work anymore, there are no worries and one can relax. More often seniors mention the possibility to relax by visiting various cultural events, exhibitions, theatre performances, etc.

The ten percent limit has been exceeded by such an addition of the sentence as "nothing", that is, slightly more than one in ten seniors believe that their life quality is no longer promoted by anything. In most cases (3/4 of all the answers of "nothing") such an answer can be explained by the fact that in the senior's perceptions quality of life is good if the person is healthy, but the state of own health is unsatisfactory. In other cases, life quality is associated with the family, relatives (their existence and support), but they are no longer there (all of them are either dead or emigrated to another country and do not keep in touch) or with youth that is irreversibly over. The comparison of the frequency of "quality of life is promoted by nothing" in the two senior subgroups reveals that it is more common among seniors without higher education ($p = 0{,}003$). Among other things, seniors also mention the following promoters of quality of life: the possibility to travel, playing a musical instrument or singing in a choir, medicine – good treatment and attentive attitude of the medical staff, or own personal health care, belief in the teachings of the parents and grandparents, as well as thinking about life and preparation for the further life. Only in the group of seniors without higher education, in 10 % of cases, the belief in God or the presence of God, which gives them the ability to get through difficulties, is marked as a promoter for good life quality. Material security as a factor promoting quality of life does not appear at all in the seniors' group. This may mean that a large part of the retired people in Latvia are poorly secured and their material condition is not satisfactory, while those who have achieved a good financial position and have enjoyed it do not consider it to be a promoter for a good quality of life.

A different picture can be observed when reviewing the most frequently mentioned categories that have been used to complete the third sentence ***"The quality of my life is limited by…"*** (Figure 3).

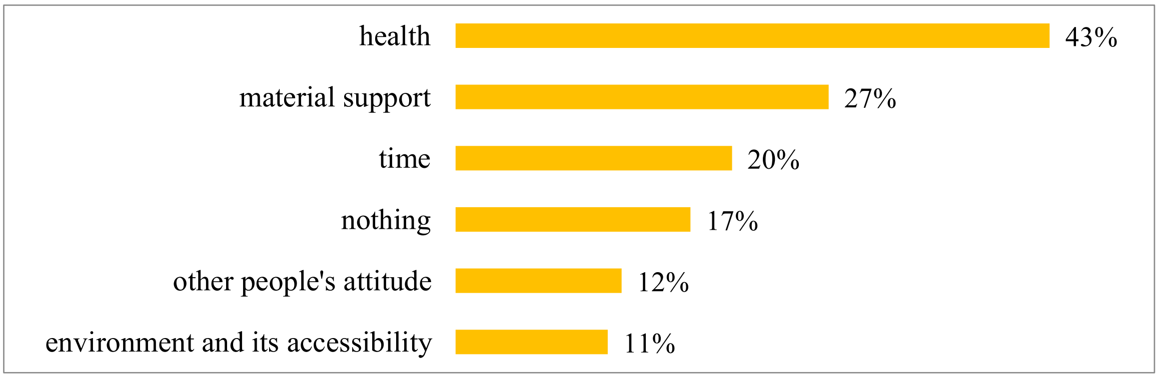


Figure 3. Most frequently mentioned life quality categories when completing the sentence
*„The quality of my life is limited by..." ..."*
(statistically significant differences between the frequencies, according to the $\chi^2$ test with $p < 0{,}001$)

Here material security appears as the second most frequently mentioned aspect of quality of life (27 %). Most often, this category refers to an unfair financial distribution and a small pension. "Chronic lack of money" is suppressing, because it does not give the opportunity to help own children. However, aspects of material security are overcome by health problems (43 %). It must be noted, however, that these categories are partially interlinked due to, among other things, the lack of financial resources to buy healthier food or the necessary medical products and services. When it comes to the limitations on quality of life, seniors mention health-related aspects twice as often as when referring to the conditions of life quality in general. Apparently, especially health is evaluated as a factor promoting good life when it fades away. The health problem category most often involves complaints of poor eyesight (although during interviews bad hearing turns to be more problematic, seniors mention it less often), pacemakers, prosthetics (especially when they are multiple), difficulty standing up, broken hips, back pain, general exhaustion, and previously experienced strokes and infarcts. In some cases, an illness of a close relative (often a child), such as "the son's stroke", is also contributing to the limitations on the quality of life. In fact, seniors without higher education mention health problems twice as often as limiting aspects ($p < 0,001$). Significantly more often respondents in this subgroup relate the restrictions in the health category to external factors, namely, unsatisfactory medical support – "doctors do not help", "one has to wait for the operation for 3 years", etc. From the fact that seniors with higher education mention health problems less often, one cannot unequivocally conclude that they feel healthy significantly more often. This difference can be explained by the greater responsibility of oneself and the corresponding linking of the diseases not to the external factors, but rather to oneself, own lifestyle (the differences in the category "own personality, personal traits") or "attributing" health problems to the age (cat. "time").

Seniors with higher education mention time as often as the financial limitations (27 %), but seniors without higher education – less often ($p = 0,018$). In general, for all seniors, time is the third most frequently cited category related to the quality of life restrictions (20 %). It is not so much associated with the lack of time as for the younger people who are occupied on a daily basis, but more with aging as an objective phenomenon – with "years that pass ahead" and the fact that "it was better in the past". The feeling that time almost continuously disappears somewhere changes with the feeling that time has already been irreversibly lost... In some statements, the notion that the most significant time is something that has already passed away and is no longer returnable is revealed quite literally. For example, when the main limitation of life quality is currently referred to as "the past – time that prevented the use of one's abilities" or "waste of time due to torment". Other pronouncements are more laconic and may consist of only one word: "age". In any case, it sounds like an unresolvable problem, unlike the "lack of time" every day when it is possible that "when ..." (a diploma paper will be written, errands will be done, children will grow up, etc.), the situation may still improve. The reason why "age" in seniors' statements appears as a limiting aspect is also due to the concerns about deteriorating memory and the loss of self-sufficiency ("I do not want to be a burden").

In the seniors' group, there is not only some kind of hopelessness in terms of promoting life by completing the sentence *"The quality of my life is promoted by…"* with "nothing", but also accepting the existing current life as it is by answering to the limitations on the quality of life with: "Nothing limits!" (17 %). Such respondents who believe that their quality of life is not limited by anything are linking the quality of life with the personality traits of a person, his physical and mental activities, with consciousness, self-realization (servicing others) and with the existence of the most necessary things for survival. All young people have mentioned some (at least one) quality of life promoter and the same – at least one factor limiting the quality of life. Hence, the opinions of seniors about the fact that quality of life is not restricted by anything, as well as opinions that nothing promotes quality of life suggests that with age the subjective assessment of the quality of life tends to be polarized.

As the fourth limitation, seniors mention the attitude of other people (12 %). The most disturbing attitude in the social environment is the indifference: "I as a history" am no longer "interesting for the younger generation". Other people's bigotry, intolerance, and envy is also mentioned. In some cases, frustration is felt with regards to "bad friends", but more pain is felt in the statements about irresponsible relatives, and especially about children who are "addicted", drinking alcohol, smoking, not studying, not going to school, not working, and "being difficult to raise". Negative life assessment for seniors can be caused not only by disputes with relatives but also by their absence (8 %): when children and grandchildren "are away", i.e., have moved to live in another country or have died, or when either a divorce has been experienced from a spouse or his or her death ("both wives are already dead", "husband died long very early"). The fifth limiting category is the environment and its availability, that is, either the dissatisfaction with the available environment or the unavailability of the desired environment (11 %). As a result of the difficulty to move, "too much time has to be spent in enclosed spaces". The inability to change the environment results in a prisoner's experience and routine, leads to "tumultuous everyday life", a life in which "there is no freedom", and a dislike of the current environment, in which one may have everything in terms of material things, but still might feel unsatisfactory because one has the feeling like in a prison. If more than one third of all seniors consider own personality as a promoting category of qualitative life, then only 5% believe it is a limiting factor. Comparatively more often (14 %), seniors with higher education assume the responsibility for their own character or lifestyle imperfections ($p = 0{,}009$). Lack of self-motivation, impatience, sedentary lifestyle and excessive drinking are mentioned as inherent disadvantages of limiting a good living. Relatively less often seniors mention conditions – events that do not seem to be dependent on oneself or some other person, such as annoying weather conditions.

In general, the unfinished sentences completed by the respondents confirm the findings of the previous studies that the quality of life of seniors is influenced by maintaining the position of the lifespan, satisfaction with the completed things, material security, health and the relationship with family and friends. Furthermore, retired people with higher level of education are less concerned about their wellbeing and income. Nevertheless, the unfinished sentences, or the absence of any responses previously provided, have made it possible to distinguish between generally accepted, often cliché impressions of good life and identify the difference between promoters and limitations on the quality of life from the seniors' perspective.

## Conclusions

- The readiness of the seniors to assume responsibility for the quality of life manifests itself in the notion that it depends on the person himself, from his honesty, his attitude to other people and life in general, from his ability to choose the right job for himself and to work hard, as well as from his own health and readiness to socialize, especially – participating in different physical activities. Nevertheless, the limiting aspects of life quality are largely not being related to oneself, but are rather found in external factors.
- In the context of lifelong learning, one must note the unpopularity of self-development and education as a promoter for quality of life. This category, which is one of the most frequently noted ones by students, is only mentioned by a few seniors with higher education. The fact that seniors prefer to obtain information from mass media suggests that many seniors during their lives (or already during school years) have developed a statement about the importance of being informed rather than learning from own personal experience as a personal lifelong development.
- Although there are apparent similarities among seniors and young people in their most frequently mentioned categories on the quality of life, the results of the seniors' survey reveal the impact of a longer life experience. Seniors relatively more often appreciate the following good life promoting aspects: health, physical activity, satisfaction with the work to be done, living space, nature and the availability of the environment. Many seniors' perceptions of life have been influenced by the experience that contact with some individuals may not only be unsatisfactory but also no longer possible – when relatives, including children, are lost.
- Time as a constraint on the quality of life in seniors' responses appears relatively less often than as indicated by the young people, however, if it does, then mostly as an unresolvable problem. Time problem for seniors is also linked to their understanding of own autonomy – due to the time that has passed (the "years of strength" that are gone) their fears to become dependent on caregivers are aggravated.
- To a lesser extent one can sense dissatisfaction among seniors related to the misunderstandings between generations. If young people feel the need to fight the standards and norms of the older generations that prevent them from finding and being themselves, then seniors feel that they have already found themselves, but do not receive the desired recognition from the younger generations.
- Unlike young people, the old age group includes individuals who believe that nothing no longer promotes the quality of life and those who do not feel any limitations on the quality of life. It can be said that when people become older, there is a certain polarization in their attitude towards life. Focusing on own personality traits, physical and mental activities, self-awareness and self-actualization, which can be influenced by oneself, can relieve over course of time from a negative life assessment. In its turn, relatives and health lost during the years, as well as the material goals that have not been reached, which have proved to be much less influenced, can

lead to hopelessness. The dissatisfaction is based on the fact that there are still some things that cannot be controlled in life – in this case, even the weather can start to seriously annoy.

- There are several significant differences in the perceptions of the quality of life for seniors with higher education and seniors without higher education. Seniors with higher education are significantly less concerned about their own health, they attach greater importance to self-development, willingness to learn, more often take responsibility for their shortcomings, more often talk about time constraints, but less often – about faith in God or the sense of God's presence. In general, the perceptions of the seniors with higher education are closer to the perceptions of students aged 20-24, which suggests that there is some kind of interest that does not change over the life span.

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# The Contentive criteria of Modular Educational Programs in Preparation Future Specialists on Costume

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**Abstract**: The field of higher education is the first priority for modern economic development of the country. Improvement of the quality of human capacity and provision of future Kazakhstan with highly skilled workforce is possible only under the condition of modernization of higher education institutions (HEI) in the republic, their integration in the global educational space. The topicality of the research is the study of the content of knowledge for Modular Educational Programs in preparation future specialists on costume. The aim of the study is the analysis of indicators of contentive criterion, based on statistical methodology. The study was done through comparative analysis, based on Kruskal – Wallis test. The results were obtained statistical significance of the differences between different groups of respondents (students, teachers, employers). The most important conclusion allowed to reveal the correlation and dependence on dynamic links. The significance of the results of research is in statistical justification of the Modular Educational Program' content in preparation future specialists on costume and revealing recommendations for higher education institutions of Kazakhstan.

**Keywords**: preparation future specialists, content, costume, criterion, university education.

## Introduction

The background of the problem is an implementation of the reforms in education, which are oriented to the topicality of research - revision of Modular Educational Program' content and renovation of preparation future specialists on costume. Application and possession of methodology of knowledge, as well as practical attainments, refer to relevant previous work (Zhanguzhinova, 2018; Zhanguzhinova et al., 2018) disclosing the integration of the theory and modernization of the practice in accordance with Bologna declaration requirements conditioned by processes of internationalization in education. New mission challenges of Higher Education Institutions in Kazakhstan on preparation specialists reflected in the strategic state program of Kazakhstan - Course towards the future: modernization of Kazakhstan's identity (Akorda, 2017). The aim of the article is an implementation of the direction of education and training of costume specialists, which will cover purpose of research:

- functioning of Modular Educational Programs through the harmonization of the content of educational programs with similar programs of foreign universities-partners; development and implementation of joint educational programs with foreign partners; strengthening the academic mobility of students, faculty members, attracting foreign students to educational programs, inviting foreign professors to guest lectures;
- creating a diversified educational environment that promotes the professional development of students, by providing the quality of educational services: the involvement of students and undergraduates in research projects;
- introduction of advanced international learning experience and strengthening practice-oriented knowledge: stable quality assurance of educational services in the training of highly qualified specialists in accordance with the requirements that can meet the needs and expectations of employers;
- communication of learning, production and science: involvement of stakeholders - employers, teachers, students in the development and implementation of educational programs.

In accordance to update new challenges in education, it has become evident that, for an effective activity in present – day circumstances of transition period, higher education institutions (HEI) should revise the Educational Program's content (Bluma, 2008).

*In this regard, the research problem defined is* insufficient development and formulation of knowledge content in preparation in HEI of future specialists on costume in Kazakhstan that impedes the integration into the global educational space. The aim of the study is determination of requirements for the knowledge content in HEI in Kazakhstan.

**Research *objectives:***

1. To develop the Contentive Criteria for the assessment of Professional competence future specialists on costume.
2. To prepare scientifically justified recommendations for the implementation in HEIs of Kazakhstan.

**Methodology**

*The methodology of research bases on* statistical *s*tudy of the implementation of the theoretical training of students on Modular Educational Programs in practical professional activity according to respondents' data (teachers, employers, students). The analysis of dynamics and statistical significance of the differences of Contentive criterion indicators conditioned by the content of Modular Educational Programs for the preparation future specialists on costume. The aim of the research is determination of requirements for the knowledge content for the preparation in HEI in Kazakhstan on the base of statistical analysis (Akorda, 2017), Formation of Professional competence of future specialists on costume and capacity-building in the system of methodical work in Professional education (Zhanguzhinova, 2018).

The research based on the Modular Educational Programs for the preparation future specialists on costume and Methodic of Formation of Professional competence, which includes methods:

- *Theoretical methods:* analysis of Contentive criterion indicators of the Modular Educational Programs on preparation of future specialists on costume.
- *Data collection methods:* questionnaires (for students, teachers, employers).
- *Data processing methods in SPSS.* This article discloses the problem of research in frameworks of descriptive statistics (mean) Kruskal – Wallis test;

The *pilot experimental* research carried out in Kazakhstan from 2008, continued, which included preparatory, ascertaining, formational, controlling stages. The experiment results and the dynamics of development Contentive Criteria were held two questionnaire stages.

1) Ascertaining carried out among 107 students of the 3rd study year (control and experimental group) from five higher education institutions of Kazakhstan, with the aim to detect levels of formedness of motivation at the ascertaining stage of the experiment.
2) Controlling carried out among 185 respondents divided in three groups: students, teachers, employers, with the aim to trace the dynamics of the motivation in different settings of phased motivation.

Carried out ascertaining stage allowed to identify initial preparation of enrolees. Integration of the proposed Contentive criteria into the research, based on the Methodic on the Formation of Professional competence upon the Modular Educational Program "Costume design" will allow to identify the effectiveness of professional preparation process of future specialists on costume, according to the results of two conducted survey stages (Zhanguzhinova, 2018). The research of the content of Modular Educational Program conditioned by Contentive criterion upon preparation future specialists on costume.

Contentive criterion allows to assess the content of cognitive processes, which suggest the formation of *skills* and understanding of *the content (in this research knowledge of costume)*; general understanding and systemic orientation in theoretical and practical training in design and didactic principles; knowledge of analytical assessment apparatus on the basis of standard education (Creswell, 2014; Adubra, 2014). Assessment of activity effectiveness consists of the main components: acquirement of Professional competencies and experience and attitude (personal characteristics) (Andersone, 2009). Contentive criterion is dependent on mechanisms of process: psychological (knowledge, skills, attitude and changes in the structure of personality and activity) (Bluma, 2008; Holmes, 2013) and functional (forms didactic principles of pedagogical impact) (Dislere, 2012, 206; Zhanguzhinova, 2018). Contentive criterion through the direction of education considers the needs of production, state order, cluster, interests of employers (Zhanguzhinova et al., 2018), by the implementation of innovative technologies on the basis of international quality standard raising and sectoral innovations (Cohen, Manion, Morrison, 2007; Rauhvargers, 2009; Zygaitiene, Buivydaite, 2017).

The study of the theory identified the definition of the term **contentive criterion,** *on the basis of the descriptor – content forms skills in the processes: professional preparation, raising of self-education and qualification level, assessment of competencies of specialists ‘on costume. Assessment criteria indicators include: systemic orientation in all design components; knowledge of constructing mechanisms of project-oriented pedagogical process, knowledge of purposeful activity essence of project-oriented pedagogical process, knowledge of design content as a subject of pedagogical process as a subject of pedagogical process, knowledge of project-oriented pedagogical components for the formation of Professional competence; knowledge of criteria on adequate work assessment, knowledge of project–oriented pedagogical conditions* (Table 1.).

Table 1

**Contentive criterion**

| **№** | **Indicator name** | **Code** |
|---|---|---|
| 1. | *Systemic orientation in all design components* | SKK1 |
| | Awareness of general and individual tasks and aims in knowledge of design basics in discipline cycles (Training curricula) A, B, C, based on interdisciplinary and dynamic links and regularities. | |
| 2. | *Knowledge of constructing mechanisms of project-oriented pedagogical process* | SKK2 |
| | Application of acmeological, gnoseological, heuristic knowledge in the field of theoretical, project graphical, constructively technological disciplines of design Module “Clothing Design” on the basis of interdisciplinary interrelations. | |
| 3. | *Knowledge of purposeful activity essence of project-oriented pedagogical process* | SKK3 |
| | Understanding of theoretical aims in the solution of subject-oriented practical tasks, which are established in practice, in work on projects, course works, in student’s practical and self-sustained work. | |
| 4. | *Knowledge of design content as a subject of pedagogical process* | SKK4 |
| | Orientation in conditions of pedagogical process structuring through the application of interdisciplinary link opportunities and universality of regularities of harmonization in design, considering that work on a project requires systematicity. | |
| 5. | *Knowledge of project-oriented pedagogical components for the Formation of Professional competence* | SKK5 |
| | Identification of specific of each discipline of Module: Colour introduction identifies the knowledge on harmonization of colour combinations; Project graphic forms taste, analysis, knowledge of composition and graphic; Costume design conducts practical realization of knowledge on clothing design, modelling, construction. | |
| 6. | *Knowledge of criteria on adequate work assessment* | SKK6 |
| | Is formed as a result of analysis, prediction, comparison with other models; objective and subjective assessment is formed on the basis of a broad spectrum of knowledge and development of analytical assessment apparatus of Future Specialists on Costume. | |
| 7. | *Knowledge of project-oriented pedagogical conditions* | SKK7 |
| | Knowledge application in educational training process – is formed on the basis of normative, pedagogical and professional conditions. | |

The research of theories revealed, that the introduction of the indicators of Contentive criterion in professional preparation of students in HEI can help to reveal problems and their solutions through dynamic links of Methodic of Formation of Professional competence:

- “sectoral innovations” in education;
- “education standard” of professional preparation in HEI;
- “education paradigm” in training of specialists;
- “mechanisms of process” of pedagogical process;
- “direction of education” in HEI;
- “organization of training” in pedagogical process (Zhanguzhinova et al., 2018).

**Results and Discussion**

For a better representation of dynamics and contentive description by the basic statistical indicators, descriptive statistics (mean) were applied. The results of two questionnaire stages are systematized in Excel program and processed in SPSS program. The analysis is conducted on contentive criterion.
Using the results of statistical analysis with all seven contentive criterion indicators, consequent positive dynamics (Figure 1), (Table 2) and dependence on dynamic links is identified:

1. systemic orientation in all design components; dynamic link No.2 "education standard";
2. knowledge of constructing mechanisms of project-oriented pedagogical process; dynamic link No.4 "mechanisms of process";
3. knowledge of purposeful activity essence of project-oriented pedagogical process; dynamic link No.5 "direction of education";
4. knowledge of design content as a subject of pedagogical process; dynamic link No.2 "education standard";
5. knowledge of project-oriented pedagogical components for the formation of Professional competence; dynamic link No.4 "mechanisms of process";
6. knowledge of criteria on adequate work assessment; dynamic link No.3 "education paradigm";
7. knowledge of project-oriented pedagogical conditions and their use in educational and training process; dynamic link No.1 "sectoral innovations".

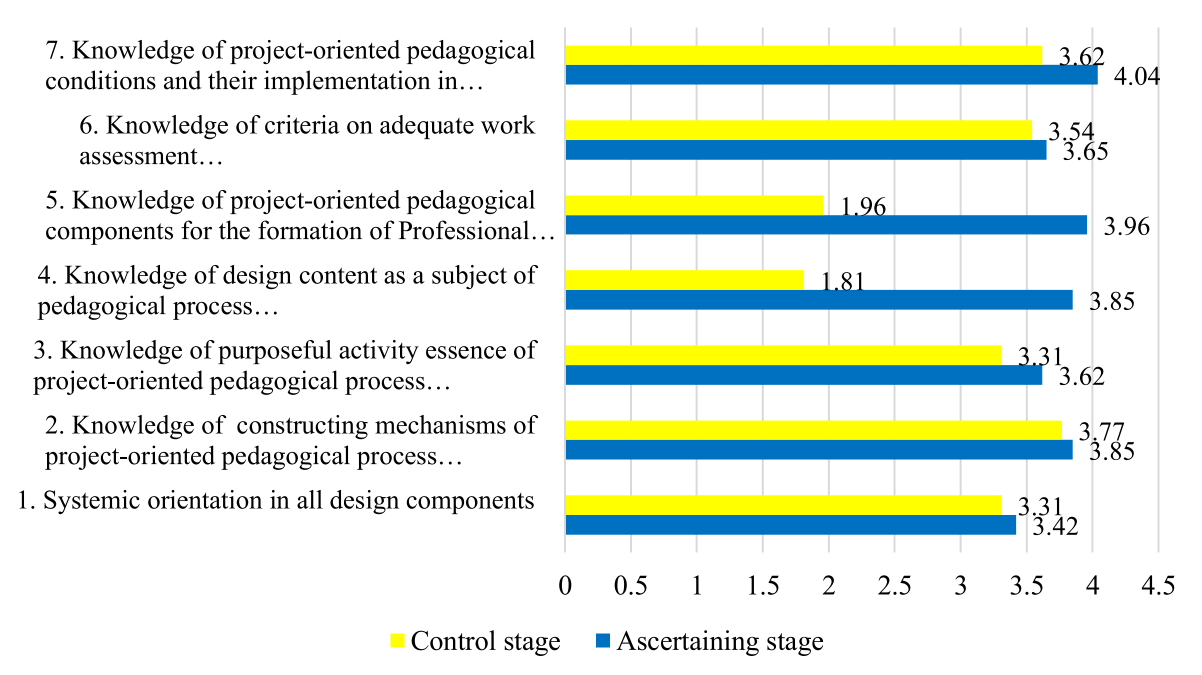


Figure 1. Dynamics of the indicator of contentive criteria.

Based on Kruskal – Wallis test, the comparative analysis of the indicators of contentive criterion of the Formation of Professional competence of all the respondents (students, teachers, employers) (Table 2.) showed that:

- statistically maximum significant differences were observed on the following variables: *knowledge of constructing mechanisms of project-oriented pedagogical process* (p=0.000); *knowledge of purposeful activity essence of project-oriented pedagogical process* (p=0.000); *knowledge of criteria on adequate work assessment* (p=0.000);
- statistically very significant differences were observed on the following variables: *knowledge of design content as a subject of pedagogical process* (p=0,004); *knowledge of project-oriented pedagogical components for the formation of Professional competence* (0.009);
- statistically significant differences were observed on the following variable: *knowledge of project-oriented pedagogical conditions and their use in educational and training process* (0.026).

*Knowledge of constructing mechanisms of project-oriented pedagogical process* among the students has the highest score (Mean Rank 45.90), while the employers were identified with the lowest score

(Mean Rank 73.68). The responses of the students characterize the well-formedness of the conditions (normative, pedagogical, professional). The employers express dissatisfaction with professional preparation of students in HEI, highlighting the weak organization of the Formation of Professional competence.

Table 2

**Statistical significance of the differences of contentive criterion indicators among the respondents**

| **Code** | **Indicators of the assessment criteria** | **p** | **Highest score** (Mean Rank) | **Respon-dents** | **Lowest score** (Mean Rank) | **Respon-dents** |
|---|---|---|---|---|---|---|
| SKK3 | Knowledge of purposeful activity essence of project-oriented pedagogical process | 0.000 | 46.56 | students | 73.52 | employers |
| SKK4 | Design content knowledge as a subject of pedagogical process | 0.004 | 46.15 | students | 69.98 | employers |
| SKK5 | Knowledge of project-oriented pedagogical components for the formation of Professional competence | 0.009 | 47.62 | teachers | 68.77 | employers |
| SKK6 | Knowledge of criteria on adequate work assessment | 0.000 | 41.64 | students | 75.14 | employers |
| SKK7 | Knowledge of project-oriented pedagogical conditions and their application in educational and training process | 0.026 | 46.96 | teachers | 66.91 | employers |

*Knowledge of purposeful activity essence of project-oriented pedagogical process*, according to the students, has the highest score (Mean Rank 46.56), while the employers identify the lowest score (Mean Rank 73.52). It indicates the well-formedness of theoretical competence of future specialists on costume and application of them in project-oriented pedagogical process. The employers pointed at the weaknesses of the organization of the process of Formation of Professional competence due to a low level or lack of interdisciplinary relations, requirements, technologies, which structure theoretical knowledge, skills, attitude of students.

*Knowledge of criteria on adequate work assessment* of the students has the highest score (Mean Rank 41.64), while the employers identify the lowest score (Mean Rank 75.14). According to the students, they possess knowledge of criteria on adequate work assessment (motivational, contentive, procedural). However, the employers identify imperfection of the process of professional preparation in HEI and the organization of the Formation of Professional competence, dependent of the Model and the Methodic.

*Knowledge of design content as a subject of pedagogical process* has the highest score among the students (Mean Rank 46.15), while the employers identified the lowest score (Mean Rank 69.98). The students characterize the well-formedness of their theoretical knowledge, skills, attitude and the organization of the process of Formation of Professional competence in the professional preparation in HEI. According to the employers, students show a low level of theoretical preparedness on knowledge, skills, attitude, as their orientation in design content as a subject of pedagogical process is poor.

*Knowledge of project-oriented pedagogical components for the formation of Professional competence* is defined by the teachers with the highest score (Mean Rank 47.62), while the employers identified the lowest score (Mean Rank 68.77). The teachers characterize the well-formedness of theoretical knowledge, skills, attitude of students in the solution of subject-oriented practical tasks, their application in design in professionally-pedagogical activity and in the organization of processes of professional preparation in HEI, dependent on the Model and the Methodic. However, the employers assessed students' knowledge of project-oriented pedagogical components for the Formation of Professional competence less positively, as they identified their inability to apply it in the process of professional activity.

*Knowledge of project-oriented pedagogical conditions and their use in educational and training process* is identified by the teachers with the highest score (Mean Rank 46.96), while the employers assess it less positively (Mean Rank 66.91). The teachers characterize the well-formedness of the characteristics (normative, pedagogical, professional), dependent on the Model and the Methodic in the organization of the process of Formation of Professional competence. The employers summarize the imperfection of the organization of the process of Formation of Professional competence during the professional preparation in HEI. According to the result of the second questionnaire, the effectiveness of the implementation of the Methodic on the basis of Modular education programme is identified among the respondents on the indicators of contentive criterion: *systemic orientation in all design components* (Zhanguzhinova, 2018). It identified the dependence on activity-oriented organizational regularity and dynamic links: education standard.

Based on Kruskal – Wallis test, the comparative analysis of the indicators of contentive criterion among the respondents (students, teachers, employers), identified the lowest scores in: *knowledge of constructing mechanisms of project-oriented pedagogical process; knowledge of purposeful activity essence of project-oriented pedagogical process; knowledge of design content as a subject of pedagogical process; knowledge of project-oriented pedagogical components for the Formation of Professional competence; knowledge of criteria on adequate work assessment; knowledge of project-oriented pedagogical conditions and their use in educational and training process.*

It identified vulnerability in dynamic links: mechanisms of process, direction of education, education standard, education paradigm, sectoral innovations.

Correlation, which indicates average interrelation, is identified between *systemic orientation in all design components* and:

- *possession of theoretical knowledge on Costume design* (r=0.580);
- *knowledge of constructing mechanisms of project-oriented pedagogical process* (r=0.557);
- *possession of project-oriented pedagogical process providing technology* (r=0.498).

Therefore, correlation identified the dependence on dynamic links: education standard, education paradigm, mechanisms of process.

It characterizes the interdependence of the indicators, which correlate with systemic orientation in all design components, on the basis of regularities, dynamic links and pedagogical interactions.

Correlation, which indicates high interrelation, is identified between *knowledge of constructing mechanisms of project-oriented pedagogical process* and *knowledge of purposeful activity essence of project-oriented pedagogical process* (r=0.738).

Correlation identified the dependence on dynamic links: mechanisms of process, direction of education.

Correlation, which indicates average interrelation, is identified between *knowledge of constructing mechanisms of project-oriented pedagogical process* and:

- *knowledge of project-oriented pedagogical components for the Formation of Professional competence* (r=0.632);
- *possession of construction of project-oriented pedagogical process* (r=0.613);
- *knowledge of project-oriented pedagogical conditions and their use in educational and training process* (r=0.611);
- *possession of practical knowledge on Costume design* (r=0.606);
- *possession of project-oriented pedagogical process providing technology* (r=0.556);
- *knowledge of criteria on adequate work assessment* (r=0.562);
- *possession of theoretical knowledge on Costume design* (r=0.571);
- *knowledge of design content as a subject of pedagogical process* (r=0.589).

Correlation identified the dependence on dynamic links: mechanisms of process, sectoral innovations, education paradigm, education standard.

Correlation, which indicates high interrelation, is identified between knowledge of purposeful activity essence of project-oriented pedagogical process and *knowledge of design content as a subject of pedagogical process* (r=0.728).

Correlation identified the dependence on dynamic links: direction of education, education standard.
Correlation, which indicates average interrelation, is identified between *knowledge of purposeful activity essence of project-oriented pedagogical process* and:

- *knowledge of project-oriented pedagogical components for the Formation of Professional competence* (r=0.678);
- *knowledge of criteria on adequate work assessment* (r=0.610).
- *knowledge of project-oriented pedagogical conditions and their use in educational and training process* (r=0.579).
- *possession of construction of project-oriented pedagogical process* (r=0.576).

Correlation identified the dependence on dynamic links: direction of education, mechanisms of process, education paradigm, sectoral innovations.

Correlation, which indicates average interrelation, is identified between *knowledge of design content as a subject of pedagogical process* and

- *skill to organize all activity types, related to Costume design* (r=0.505);
- *possession of project-oriented pedagogical process providing technology* (r=0.503).

Correlation identified the dependence on dynamic links: education standard, direction of education, mechanisms of process.

Correlation, which indicates average interrelation, is identified between *knowledge of project-oriented pedagogical components for the formation of Professional competence* and:

- *knowledge of project-oriented pedagogical conditions and their use in educational and training process* (r=0.616);
- *knowledge of criteria on adequate work assessment* (r=0.612);
- *possession of theoretical knowledge on Costume design* (r=0.517).

Correlation identified the dependence on dynamic links: sectoral innovations, education paradigm. Correlation, which indicates average interrelation, is identified between *knowledge of criteria on adequate work assessment* and:

- *knowledge of project-oriented pedagogical conditions and their use in educational and training process* (r = 0.491);
- *possession of theoretical knowledge on Costume design* (r = 0.520).

Correlation identified the dependence on dynamic links: sectoral innovations, education paradigm. Correlation, which indicates average interrelation, is identified between knowledge of project–oriented pedagogical conditions and their use in educational and training process and:

- *possession of project-oriented pedagogical process providing technology* (r=0.623);
- *possession of theoretical knowledge on Costume design* (r=0.525).

Correlation identified the dependence on dynamic links: mechanisms of process, education paradigm.

## Conclusions

Based on the results of the questionnaire of students, teachers, employers and Kruskal – Wallis test comparative analysis of the indicators of the Criteria for the formation of Professional competence, statistical significance of differences is identified – in contentive criterion, the effectiveness of the implementation of the Methodic on the basis of Modular education programme is identified among the employers on the indicators of contentive criterion: *systemic orientation in all design components.*

For the development of Modular Educational Programs, it's necessary reconsideration of the professional preparation of future specialists on costume in Kazakhstan's HEI. According to the provided research, the following recommendations were revealed:

- to make additions to the normative framework education programs on the modernization of the approaches in training in HEI into **"education standard"**. This renovation can contribute functioning of Modular Educational Programs through the harmonization of the content of educational programs with similar programs of foreign universities-partners;
- the creation of the opportunity of self-sustained students' choice of training trajectory in HEI (according to the principles of Bologna declaration, students have the right to plan their training individually) in **"direction of education"**. This can improve creation of the diversity of educational environment, that promotes the professional development of students, by providing the quality of educational services;

- to make changes and additions into **"sectoral innovations"** in education:
  1) in the aims and the content of theoretical preparation and practice on the basis of sectoral innovations in education for the realization of all competence types; this can attract the advanced international learning experience and strengthening practice-oriented knowledge;
  2) in the assessment of competencies on the basis of proposed motivational criteria for formation of the prestige of profession;
  3) in content of the education programmes, which increase the scope for the acquisition of subject-oriented knowledge, skills, attitude and subject-oriented practical and profile orientation of preparation;
- to organize the pedagogical interaction of students, teachers, employers for the effectiveness of institutional education reforms in Kazakhstan on the basis of Bologna declaration. This can create the communication of learning, production and science;
- to create of flexible conditions for international academic mobility and planning of the content of education for sectoral needs in realization the Formation of Professional competence in educational and productive processes.

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# Development of professional education and career

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# Leaders' Career Development for Sustainability: Lithuanian Case

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**Abstract**: Leaders' career development for sustainability in organizations of Lithuania will be discussed in the paper. The potential of organization to create favourable working environment suitable for cooperation, communication and networking to combine different actions is based on leader's awareness about sustainability. Moreover, sustainability stipulates organizations to change leaders' behaviour for communicating their ideas that make profitable solutions. Therefore, it is significant to raise leaders' career development and sustainability understanding as it might equip leaders with special skills and knowledge to make adequate decisions for successful collaboration and efficient results in sustainability context. The paper aims to explore that it is necessary to raise awareness about sustainability in organizations that leaders would be able to set clear future visions, create positive relationship between staff, communicate sustainability ideas in organizations and to find out some barriers that leaders are facing. For this reason, it is highly important that leaders envisage how to develop their career for sustainability and make efforts to motivate employees to work at their full potential. Research problem – leaders lack sufficient knowledge about sustainability and influence on their career development in organizations of Lithuania. Research methods –scientific literature analysis, qualitative data collection (interview) and analysis. The results of the study demonstrate that employees do not have enough understanding about sustainability and leaders lack knowledge about opportunities for career development in organizations of Lithuania.

**Keywords:** awareness of sustainability, employees, leaders, career development.

## Introduction

The term sustainability is very broad and encompasses many areas of expertise. More and more corporate businesses are including sustainability into their management agendas as it is useful for staff career development. This enables researchers to discuss and elaborate the connection or link between sustainability and other systems, like human resource management, employees' education and career development (Savanaviciene, Stankeviciute, 2014; Human resources today, 2018). Sustainability for organizations on a daily basis demonstrates their activities in support of the new initiatives in the working environment, transparency and staff training. Sustainability and activities for each employee have a direct impact on the development of their career. Analysis of scientific literature and documents (Streimikiene, 2014; Wiek, Iwaniec, Childers, 2014) on sustainability concept stating its practical realization, conceptualization of social needs and values emphasize the significance of sustainability in organizations. The direction towards the value – based priorities in sustainability orientated society marks the shift of leaders' needs. Constant changes happening in modern society are a response to societal transformations, and one of its peculiarities lies in that organizations urge to discuss leaders' career development focusing on the approach of sustainability concept. Although there are many interpretations about the concept of sustainability and its implementation in organization, there is mutual consensus about the following three principles (Wiek, Iwaniec, Childers, 2014):

- insurance of equality and fairness for leaders and staff to achieve their goals in life;
- leaders and staff empowerment to believe in their abilities and to make positive changes;
- leaders and staff personal commitment to take part in finding solutions to social problems.

Authors (Gudykunst, 2005; Streimikiene, 2014; Urdzina-Merca, Dislere, 2018) emphasize the importance of the working environment, relationships, information technologies and communication. Rapidly changing information and communication technologies and their use enables leaders to have access to newest information, to take part in webinars, forums and go-to-meetings on-line, which allows staff involvement. Therefore, it could be claimed that the greatest leader's responsibility is to motivate and inspire staff to go forward.

Some researchers (Gudykunst, 2005; Petkeviciute, 2013) indicate that the changes in the last decades of intense economic, social, technological, sustainability values have fundamentally altered the nature of the work itself: many organizations provide the guarantee of a fixed and continuous employment and ensure a stable career development opportunity for its employees. Previously traditional leaders' career, perceived as vertical progress in one organization, at the moment is becoming more horizontal and greater responsibility for the career development depends on individual efforts. It could be said that leaders' career development is a complex personal process, which is conditioned by a number of factors including sustainability. Leaders in organizations claim that they need more training about sustainability so that they could make adequate decisions which increase employees' motivation.

Therefore, reports of sustainability (Sustainability Reporting in.., 2016) is a driver of organization's sustainability impact, which makes it even more important for the organizations to report when and how they establish their sustainability process (Schaltegger, Wagner, 2006). In order to do this, leaders in organizations have to control, assess and measure different operations as well as evaluate employees' career development (Schiehle, Wallin, 2014).

As the study is based on ideas of positivist paradigm which emphasizes the progress of humanity ruled by order and harmony, modern humanistic philosophy focusing on human functioning without prejudices and discrimination as well as holistic approach to individual's abilities, needs, expectations and actions, reporting about sustainability corresponds with the philosophical background. Moreover, the study embraces approaches of constructivist theory, specifically social constructivism with its ideas that a leader can reconstruct knowledge-based models and motivate other employees for vertical and horizontal career development which appears in the socially conditioned environment (Chiu, 2003).

Leader's modern career is mainly associated with the personal development in different areas of life: education, employment, family life, social activities, thus, the personal career emphasizes self-cognition, self-education, more opportunities to get to know and to express themselves. It depends on the individual's aspirations, opportunities and objectives. Higher sustainability awareness empowers leaders, not only to be sustainable in professional activity, in personal career development, but everyday life, too. The success of personal career depends on how much leaders' understanding about sustainability is developed (Petkeviciute, 2013).

For this reason, more and more organizations in Lithuania are working proactively and are setting their priorities and plans for employees' training in order to construct their careers towards sustainability (Nakrosis, Vilpisauskas, Jahn, 2016). They are communicating this through the media about the progress of implementation of their action plans on sustainability. Moreover, organizations are changing and developing values adequate to the new era of sustainable development and train their staff to think strategically, to work and act effectively in sustainability context.

It is significant to consider how leaders are trained, which the important proofs are and how the process quality is maintained. Awareness about sustainability provides leaders with better career opportunities and higher professional recognition by their organizations and colleagues.

Sustainability awareness determines the level of knowledge, skills, competencies and qualities leaders should have in order to have sustainability approach towards their job, team relations, training and career development. Their actions should contribute to the decision-making efficiency and add value to their organizations. Thus, the application of the sustainability approach by the leaders will have the following positive effects for the relations with the local and global environment: reduction of energy resources, recycling, using public transport, cycling to work place; saving human potential and energy; improving social climate around the ethical stakeholders and the local organizations increasing level of public welfare.

The value of sustainability is beneficial for all sides - the employees, leaders and organizations. The benefits for the leaders can be defined in several aspects: through the sustainability approach and career development. Leaders improve reputation and business activities; their actions lead to the reduction of energy, human resources costs and provide added value to their organizations. From that point of view sustainability importance and influence, for the performance of the leaders and the success of their organizations are extremely significant. Leaders could know about possibilities of development of their career raising deeper understanding about sustainability concept and its implementation in organizations. Also, it could be claimed that higher awareness of sustainability could enhance vertical and horizontal leaders' career which is profitable for all segments in organizations.

The paper aims to explore that it is necessary to raise awareness about sustainability in organizations that leaders would be able to set clear future visions, create positive relationship between staff, communicate sustainability ideas in organizations and to find out some barriers that leaders are facing.

**Methodology**

The purpose of the study highlights the importance of leader's career development for sustainability and to motivate employees to work at their full potential. Research problem – leaders lack sufficient knowledge about sustainability and influence on their career development in organizations of Lithuania.

Research methods – scientific literature and documents analysis, qualitative data collection (interview) and analysis of the study results. The results of the study demonstrate that employees do not have enough understanding about sustainability and leaders lack knowledge about opportunities for career development in organizations of Lithuania.

In order to analyse leaders' career development for sustainability, qualitative research methodology (interview) was used. Qualitative research method enables to collect various information about the research object and phenomenon helps to discover original facts which are useful for interpretation and discussion. In scientific field (Rupsiene, 2007) this method is applied to interpret a phenomenon, to understand problems and reveal causes. It is also used for scientific discussion. The qualitative research method (interview) of the study was applied to find out about respondents' experiences and reflection. The interview was planned and organized in a particular environment (university) with the aim to investigate respondents' problems and to analyse their needs.

Based on scientific literature, it was designed the research instrument – a questionnaire for interview which was used to reveal the needs of leader's career development for sustainability There were seven 9 interview topics. All topics of the questionnaire correspond with the concept of sustainability and leaders' career development.

The topics of the interview are the following:

1. Statement which disclose awareness of sustainability.
2. Statements which disclose opinion about importance of sustainability for industry.
3. Statements which disclose the importance of sustainability in organization.
4. Statements which disclose the importance of sustainability for employees.
5. Statements which disclose main barriers for implementation of sustainability.
6. Statements which disclose measurement of sustainability in organization.
7. Statements which disclose the five most urgent reporting strategies to undertake for sustainability in organization.
8. Statements which disclose the definition of sustainability leader.
9. Statements which disclosure sustainability competences for leaders' career development.

**Respondents.** Qualitative (interview) research was performed in 2017. There were 7 different level managers of organizations in Lithuania (private and public), who took part in the interview and expressed their opinions about seven topics. The majority of participants (87 %) who took part in the survey were in the first level leaders, the smallest number were in the top management (0.5 %). 67 % of participants were 35-45 years old and 33 % - 45-55 years old. The distribution of respondents according their gender was: male – 75 % and female – 25 %.

**Results and Discussion**

The analysis of the results of interview are presented below. The research revealed that the biggest number of the respondents from the private (45.8 %) and from the public organizations (54.2 %) have heard something about sustainability but have no clear ideas what the concept means. Leaders' knowledge about the sustainability might help to create sustainable relationship between leaders and employees in organizations in Lithuania.

Leaders could share most of the ideas about sustainability and career development. Generalizing, it could be claimed that respondents of private and public organizations do not have influence on sustainability concept. The majority of the respondents said that their organization has no formal sustainability department or manager, and only a few organizations have a concerned person who is dealing with those problems.

The first question was about the meaning of the word 'sustainability'. Most respondents related sustainability to: "*good health and well-being (87 %); partnership for the goals in personal life (26 %); responsible consumption and production (67 %); employment and economic growth (47 %); education (33 %); environmental protection 33 %); professional life – sustainable internal and external communication; planning of the future; gender equality; water and sanitation. welfare, security for all staff and nature protection*" (Figure 1).

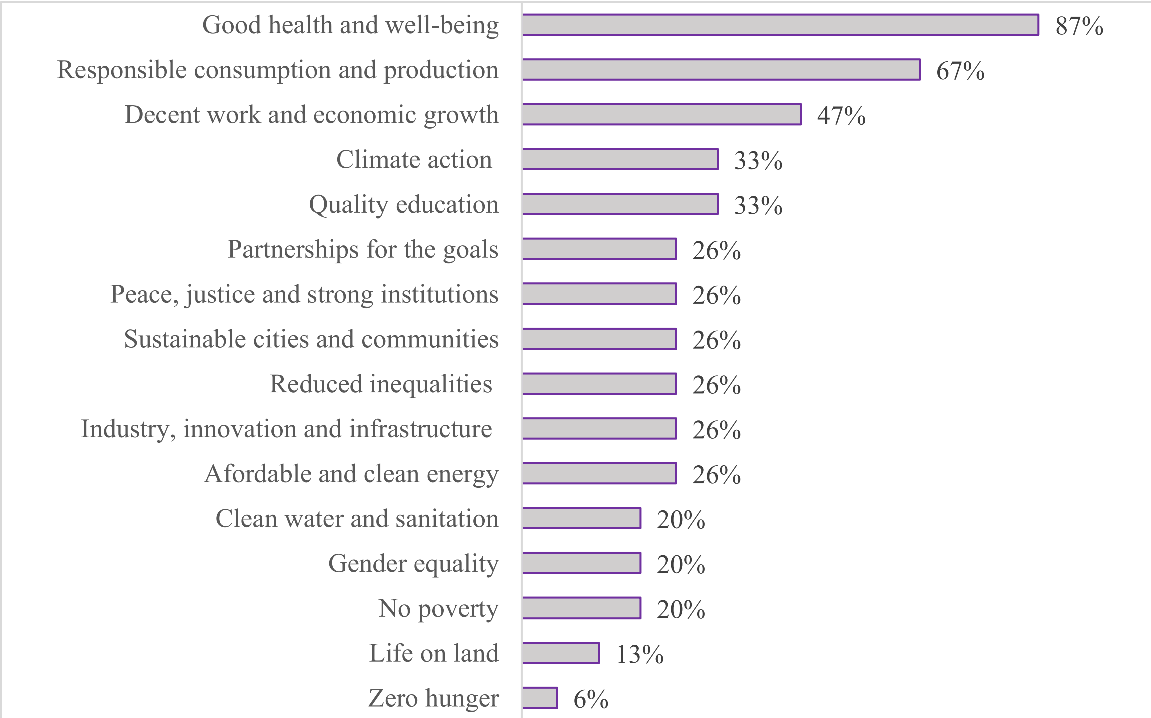


Figure 1. Criteria of sustainability based on respondents' answers.

The second question was about the importance of sustainability for leader's industry in general. The respondents marked: that it is "*Very important, because it connects all aspects of activities; encourages development and protects natural resources*".

In response to the third question, of why it is important to implement sustainability in your organization, the respondents pointed out that it is useful for: "*Work experience; Communication skills; Financial skills; Understanding of sustainability; Leadership skills; Innovation skills; Long-term planning skills; Empathy*", but it was signified of immense value *Understanding of sustainability and Communicating about sustainability.*

The fourth question was about reflection of employee's experiences about the main advantages of implementing sustainability. The respondents claimed that it helps for development of "*Sense of community; Tolerance; Smooth communication; Environmental protection; Financial benefits; Better future for generations; Improving the image of the organization; New markets; Innovations*". In response to the fifth question about the main barriers for implementing sustainability, the respondents identified the following obstacles "*Lack of finance, time and information; Lack of staff; Poor communication; Egoistic attitude; Instability of market*". In response to the sixth question about sustainability measurement the respondents noted that "*There is no measurement of sustainability*" in participating organizations. The seventh question asked respondents to point out five most urgent reporting strategies about sustainability in organization. The respondents signified the following strategies according to their importance:

- "*organize a survey on current state in the company;*
- *prepare a strategy and action plan;*
- *increase finance sources intended to support sustainability;*
- *attend professional training;*
- *hire a consulting agency and outsourcing experts*".

In response to the eight question about sustainable leaders the respondents characterized them as: "*Sustainable leader is the person who aims to develop sustainability in organization, who is a good communicator trying to inspire others*".

In response to the last question about the competencies of sustainability needed for leaders' career development, the respondents marked: "*Sociability; Education; Experience; Good relations with stakeholders; Insight; Continuous improvement; Initiative; Global and holistic thinking, Respect to nature*".

As the aim of the study was to find out that there are some barriers that leaders are facing. It was mentioned that there is a lack of communication, finances, competent staff, and dominate egoistic and individualistic attitudes. So, it would be useful to organize staff training about advantages of sustainability and impact on career development.

Respondents determined that for sustainability dissemination leaders need some competencies such as: good relations with stakeholders; insight; initiative; global and holistic thinking, respect to nature. There is a need for more training for workers on the concept of sustainability.

Leaders' career development can be defined as a combination of motives, values and talents that influence an individual's career choices. The survey showed that awareness about sustainability is the most important for leaders' career development. It is inevitably focused on the horizontal and vertical career what drives the individual. The importance for leader's career development is the recognition that there are strong sustainability competencies which affect career satisfaction, and career orientations provide a way of understanding sustainability motivators of career development. Many organizational career programmes assume that employees are motivated by the prospect of promotion, but there is considerable evidence for differences in motivation (Holland, 1985). Although, equally, there is evidence to suggest that employee's promotion aspirations in sustainability are often underestimated.

If employees remain in a job that is not congruent with their career development and repress their motivations, it is argued that they seek to achieve the missing elements of their career through outside work interests or by withdrawing commitment, which has obvious implications for organizations.

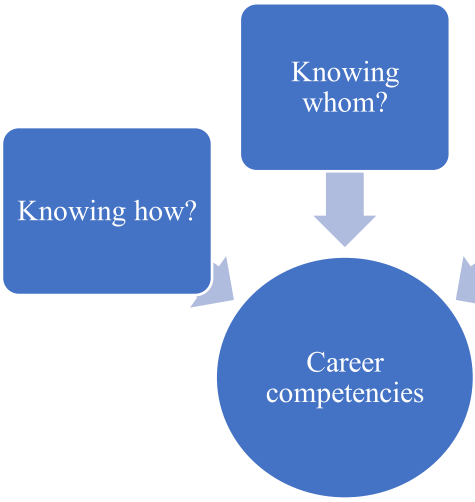


Figure 2. Leaders' career competencies for sustainability.

Leaders' career competencies for sustainability could be divided into three areas. knowing whom; knowing how; knowing why (Figure 2). Indeed, there is, knowing how competencies are about finding sustainability related knowledge, such as what's needed to perform well for environment and soft skills. Understanding this can help the leaders focus their career development in sustainability more accurately. Then knowing why competencies are about understanding sustainability concept and the values, meanings and interests that leaders could hold for environment protection, global warming and organizational involvement. Also, it is important to develop the confidence, motivation, enthusiasm and self-assurance needed to progress on sustainability. Finally, knowing whom is about identifying the key players that determine success in sustainability and gaining proximity to the employees that can aid development, such as through more effective networking. This approach can be a useful frame for high potentials trying to understand how to work on sustainability for leaders' career development. Typically, organizations will support the development of career competencies for sustainability by making some of the core tools and techniques available, or by providing training in sustainability aspects, such as communication, networking and sustainability awareness.

Leaders' career core competencies can have immense value both to organizations and to employees in understanding benefits in sustainability:

- a way of structuring career discussions and organizing interviews about sustainability;
- better understanding by leaders of why sustainability drives for their career development;
- the ability to create more sustainable organizational design;
- increased career satisfaction through more constructive discussions with employees about sustainability;
- the design of appropriate reward systems using sustainability concept;
- the design of appropriate leaders' promotion systems.

In order to work effectively, there must be sufficient trust in the organization that questionnaires or interviews will be conducted in good faith, that the views of the person are accurately reflected. Some authors did research in career development (Yarnall, 2008) and found that there can be immense value in using the collective results of an organizations career profile, to get a greater insight into the career culture of the company (Sustainability and Reporting…, 2015). At the same time, it would be useful to embed sustainability approach into employees' career development culture.

## Conclusions

The study is based on ideas of positivist paradigm which emphasizes the progress of humanity ruled by order and harmony, modern humanistic philosophy focusing on human functioning without prejudices and discrimination as well as holistic approach to individual's abilities, needs, expectations and actions, reporting about sustainability corresponds with the philosophical background.

The results of the qualitative research (interview) showed that respondents' understanding of sustainability is as follows "*good health and well-being (87 %); partnership for the goals in personal life (26 %); responsible consumption and production (67 %); employment and economic growth (47 %); education (33 %); environmental protection (33 %)*". So, they place higher emphasis on personal good health and wellbeing.

It was mentioned by respondents that financial skills are very significant in the development of sustainability concept in organizations in Lithuania.

Most of respondents assume that there's a lack of sustainability consistency in their organization and it is only secondary marketing thing as well as there's not enough information about that. Moreover, there is a lack of evidence of sustainability measurement elements. The majority of the respondents said that their organization has no formal sustainability department or manager, and only a few organizations have a concerned person who is dealing with those problems, also there are some barriers that leaders are facing: a lack of communication, finances, competent staff, and dominate egoistic and individualistic attitudes.

The research revealed that the biggest number of the respondents from the private (45.8 %) and from the public organizations (54.2 %) have heard something about sustainability concept but have no clear ideas what it means. Leaders' knowledge about the sustainability might help to create sustainable relationship between leaders and employees in organizations in Lithuania.

The study demonstrated that awareness about sustainability is the most important for leaders' career development. It is inevitably focused on the horizontal and vertical career what drives the individual.

Sustainability for the respondents is an important factor in their organizations, and they identified a number of key advantages of sustainability concept development in organizations.

Leaders' career competencies for sustainability could be divided into three areas: knowing whom; knowing how; knowing why. *Knowing how* competencies are about finding sustainability related knowledge. *Knowing why* competencies are about understanding sustainability concept and the values, meanings and interests. *Knowing whom* is about finding the right team for successful implementation of sustainability. This strategy could be a useful tool for increasing sustainability awareness in organizations and for leaders' career development.

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# Teachers' Job Satisfaction and Personal Life Balance Aspects

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**Abstract**: Seeking personal fulfilment and self-realisation, and wishing to contribute to social well-being are important for teachers. Social, economic and technological changes in the contemporary society bring about changes in how the labour market and educational institutions operate. Previous research has shown that the balance between personal well-being and job satisfaction is useful for the organisation itself. However, some managers of educational institutions in Lithuania are still slow in implementing the measures to ensure the balance. The aim of the research is to reveal the interaction between the balance in personal life and job satisfaction of teachers. Analysis of scientific literature was selected for the theoretical explanation of the research problem as well as a quantitative research method (questionnaire) was selected for the empirical research. The current survey has established the main factors affecting job satisfaction, the main of which is the type of work, relationships with colleagues and trust in the organisation. The research showed that the most effective measures, which affect the balance between the teacher's personal well-being and job satisfaction, as indicated by the respondents was the opportunity for flexible working time, quality workplace and duration of working hours (part-time work).

**Keywords**: personal well-being, job satisfaction, school education.

## Introduction

As a result of fast development of technology, work specifics changes; within the context of social changes, the volume of knowledge and information increases; and economic changes increase the scope of work per employee. Under these circumstances, not only the choice of a professional career that becomes relevant, but also work-life balance of teachers. Educators find reconciling such things as growing demands of their management, their workload and personal time increasingly more difficult. According to various studies, job satisfaction is responsible for greater motivation, dedication to the job, lower employee turnover and contributes to a better quality of life of individuals. In addition to their professional activity, employees have many other responsibilities and needs (family, friends, and hobbies) which require time. Work-life balance means the reconciliation of all these duties and needs with the main professional activity. The balance in this case does not mean that equal time must be devoted to the said variable, but that every teacher should have the opportunity to combine these factors. The opportunity to maintain work-life balance provided by their management increases efficiency, job satisfaction and loyalty to the organisation. *The aim of the research* is to reveal the interaction between the balance in personal life and job satisfaction of teachers.

## Methodology

*Research methods:* Analysis of scientific literature was selected for the theoretical explanation of the research problem as well as a quantitative research method (questionnaire) was selected for the empirical research. The survey aimed to identify the teachers' attitude personal experience and the situation at educational organisations relating to the pursuit of balance between personal well-being and job satisfaction.

The survey hypothesis: work-life balance leads to changes in job satisfaction. When testing the hypothesis, the aim was to identify whether the respondents were satisfied with each identified job satisfaction factor.

The questionnaire consists of four parts. Two types of questions have been used: closed-ended questions with multiple choices and statements with scale responses (the choices for answers range between 1 and 10, where 1 means *strongly disagree* and 10 means *strongly agree*). The questionnaire was divided into four parts: job satisfaction (questions 1–4); work-life balance (questions 5–6); flexible work opportunities (questions 7–9) and general information (matters 10–15).

*Organisation of the survey.* Teachers from 13 Lithuanian schools agreed to participate in the survey. There was a total of 478 respondents, of which 72 % were women and 28 % men. The survey was carried out in April 2018. Data are generalized, synthesised and displayed graphically (Vogt, 2005). The results were analysed using the statistical, comparative and content analysis methods. Statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS 24) for Windows.

## Results and Discussion

### The concept of the balance between personal well-being and job satisfaction and its importance

The concept and understanding of job satisfaction have evolved over time depending on the actual issues of the period, context and other factors. Job satisfaction can be defined as human condition where a person either likes or dislikes his work. One of early definitions of job satisfaction was provided by M. Beer (1964) who maintained that it was employees' attitude towards the company, fellow workers and other psychological objects in the work environment. In other words, job satisfaction is an individual feeling of every human being with respect to his/her workplace, which depends on the wishes of the employee and compliance of the needs with the actual satisfaction of the needs.

There are several theories which explain the importance of the balance between personal well-being and job satisfaction. In literature it is explained in two ways – as the *state* of an individual or as a *way to achieve this state*.

The authors who explain the concept of the balance between personal well-being and job satisfaction as the state provide a definition common to all social groups. Researchers describe it as the state of equilibrium achieved by an employee, where he is able to meet the demands of both his work and personal life (Rama Devi, Nagini, 2013; Lockwood, 2003; Khallash, Kruse, 2012). L. Blazovich, K.T. Smith and L.M. Smith (2014) maintain that the balance between personal well-being and job satisfaction is the distribution of a person's time between work duties and other pursuits (family, hobbies and other social needs).

R. Baltusite and I. Katane have studied the successfulness of a teacher's career. The educator's profession is not only a profession, but also a mission. A successful teacher is the one who perceives his or her professional activities as calling, where the main essence is serving to the nation and mankind. The research has shown that the most important indicators of advantages of a teacher's profession was self-development, working with the youth, creative work and satisfaction (Baltusite, Katane, 2017, 32).

Despite of the awareness of mission of teacher and job satisfaction granted by association with students the situation of educators is quite complicated. On the one hand the educator faces very high demands from society and on the other hand the educator meets lack of uniform demands and values in school and among parents, the low esteem of teacher's profession and low student motivation to learn, serious problems of discipline in school. The above does not contribute to job satisfaction and life balance. Teachers need regular and deep support, that would offer a transformative learning environment characterised by reflection and self-evaluation (Ergle, Rutka, 2016).

For the purposes of this article the personal well-being of teachers will be considered to be allocation of time for the satisfaction of the needs related to the family, hobbies and other social activities.

Some authors, however, include in the definition of work-life balance not only the employee's perspective, but also that the management. N.R. Lockwood (2003) provides a more accurate and concrete description taking into account social characteristics of the individual. The author maintains that the concept of work-life balance has different meanings for different groups of people: from an employee's viewpoint, it is a dilemma of managing work obligations and personal/family responsibilities; from an employer's viewpoint, it is a challenge of creating a supportive working environment for employees so they can focus on their jobs. Thus, based on the analysis of the concept of the balance between job satisfaction and personal well-being as a state it becomes clear that an individual's social and marital status and the position held in a company are some of the important characteristics in researching and discussing this phenomenon.

H. Kumar and S.K. Chakraborty (2013) maintain that in order an employee would feel happy and motivated to work, his focus should not only be on the organisation, but also on the society. This is difficult to implement, if the employee does not have the possibility to maintain the balance between these activities. In his Ecological Systems Theory U. Bronfenbrenner (Bronfenbrenner, 1989; Whinston, Cinamon, 2015) provides a scientific justification for the above claim. The Ecological Systems Theory distinguishes four systems (micro, meso, exo and macro) surrounding individuals that affect each another (Figure 1).

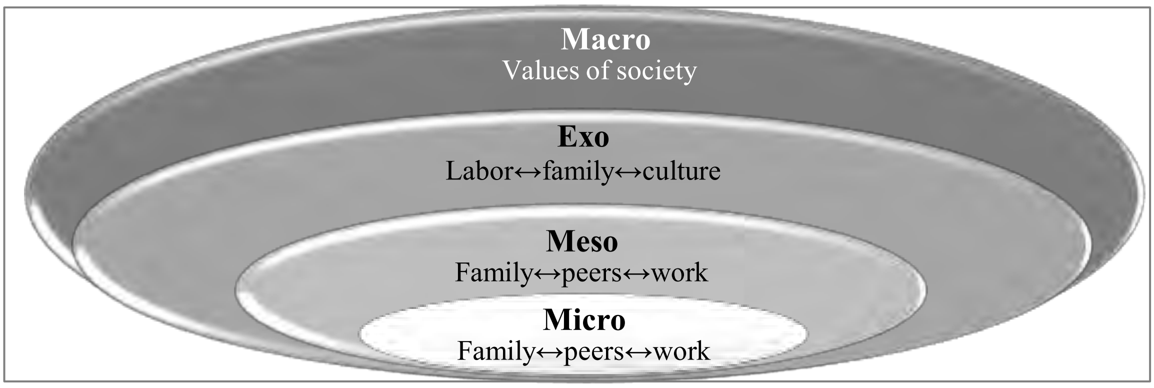


Figure 1. Elements of U. Bronfenbrenner's Ecological Systems Theory.
*Source: prepared by the authors on the basis of U. Bronfenbrenner (1989) and S.C. Whinston, R.G. Cinamon (2015).*

According to U. Bronfenbrenner (1989) systems can be explained as follows:

- *microsystem* – family and work. All the elements which take part in an individual's life can be attributed to this system. On the basis of the conclusion made earlier concerning the definition of personal life, this system may include hobbies and other public pursuits.
- *mesosystem* refers to the interactions between microsystems. The mesosystem includes the component of balance between job satisfaction and personal well-being, because one element of the system (work) affects the other element (personal life) either negatively or positively.
- *exosystem* – environment (organisational culture, family culture) which affects an individual while the individual has little or no effect on the environment.
- *macrosystem* – the largest system in which an individual life affects labour, family and other values.

Thus, according to the Ecological Systems Theory, the teacher inevitably experiences either positive or negative interaction between elements of the microsystem in which s/he lives within the mesosystem. The teacher, like any individual, lives in the encompassing macro system where the conditions not always depend on the individual. The balance between certain elements of life is not only the teacher's problem, but also the problem of the administration of the educational institution that the teacher represents.

P.J. Dewe, M.P. O'Driscoll and C.L. Cooper (2010) distinguishes five different approaches in order to explain the relationship between job satisfaction and personal well-being:

- *segmentation model* – work and personal life are two distinct domains of life which do not have anything in common;
- *spillover model* – these two factors may influence one another in positive and negative way;
- *compensation model* – whatever is lacking in one domain in the sense of needs or satisfaction, can be compensated in the other domain;
- *instrumental model* – one domain facilitates activities in the other domain;
- *conflict model* – excessive needs in all domains of life may force individuals to make difficult choices, which may cause certain conflicts.

Mutual interaction between work and personal life are mainly examined by researchers within the context of the conflict theory. Based on this theory, L.T. Brummelhuis and T. van der Lippe (2010) claimed that the use of human time and energy only for one role leaves no time for other roles. This happens because, according to the conflict theory, the relationship between family and work is best expressed as a zero-sum game, because the human time and energy are finite resources. To sum up, it can be said that time and energy dedicated to the family cannot be devoted to work and vice versa. The authors speak only about the work–family conflict, however the same can be adapted to the conflict between personal well-being (not only family) and job satisfaction.

So far, the impact of technology has *not* been considered to be an important factor for the topic in question (Haeger, Lingham, 2014), but it is specifically technological upgrade, which has led to the emergence and popularisation of new forms of work that have fuelled the conflict between work and personal life. Laptops, mobile phones and the internet made flexible working hours more appropriate and more effective in terms of costs (Greenblatt, 2002). Thus, the rapidly growing technological advance and flexible work opportunities blur the boundaries between leisure time and work, while at the same time increasing the likelihood of side effects on the quality of life (Ilies, Wilson, Wagner, 2009; Bell, Rajendran, Theiler, 2012). The spill over of work problems into the family and vice versa gives rise to the problem of how teachers can combine and separate these two major aspects of life.

J.H. Greenhouse and G.N. Powell (2006) offer the theory of work-family enrichment. According to the authors, enrichment occurs where the resources derived by performing one role encourage better performance of another role. This theory reveals best why an educational institution must help teachers combine their social roles.

On the basis of the theory of roles of S.C. Whinston and R.G. Cinamon (2015) claimed that every role has a certain market demand limited by finite resources. Time and energy, which are limited, can be considered such finite resources. There is a need to distribute one's personal life priorities between the roles. Failure to identify priorities or to distribute equal amount of time between all roles causes conflict between elements of these roles (mesosystem).

**Empirical investigation of the personal well-being and job satisfaction**

One of the objectives of the study was to identify whether the respondents were satisfied with each identified job satisfaction factor. It was also sought to clarify whether an individual had a problem to combine the needs of work and personal life and how he manages to reconcile them. Finally, following the evaluation of the job satisfaction and work-life balance of the respondents it was sought to find a connection between these two variables.

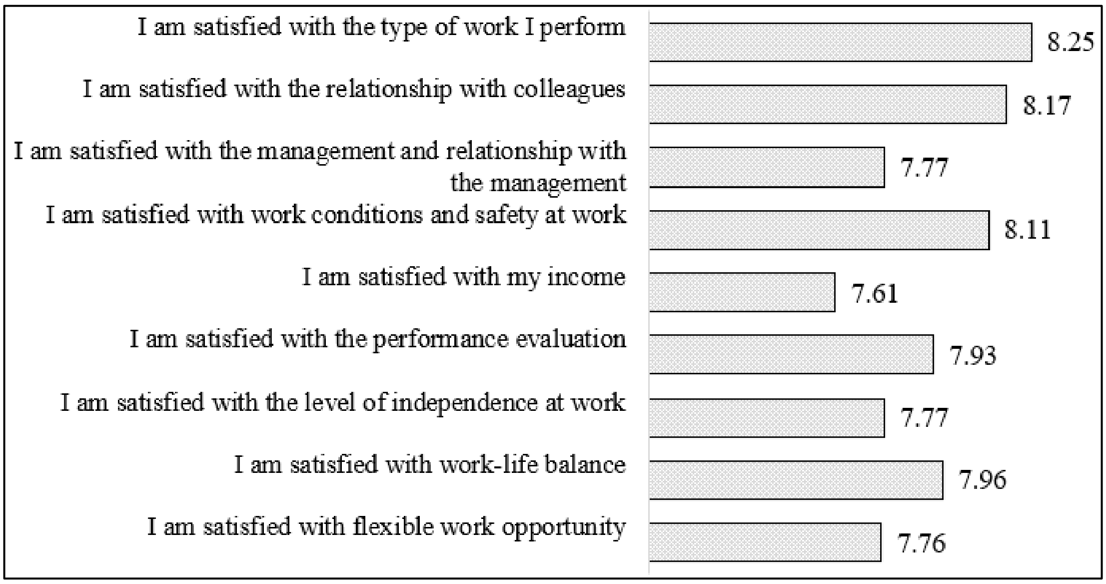


Figure 2. Job satisfaction of respondents (the mean values of the responses $1 \leq M \leq 10$).

Part one of the questionnaire consists of the questions regarding job satisfaction factors (mean scores are provided in Figure 2). The results show that the teachers who have participated in the survey are sufficiently satisfied with their work. The respondents were least satisfied with their income (7.61), flexible work opportunities at school (7.76), level of independence (7.77) and management and relationship with the management (7.77). Although these job satisfaction factors scored lowest, it cannot be said that teachers are thoroughly dissatisfied with these factors (the score is higher than the average [5]). The work-life balance indicator scored 7.96. Educators are most satisfied with the type of work they perform (8.25) and their relationship with colleagues (8.17). Thus, it can be said that teachers are pleased with what they do.

Two statements provided to the respondents entailed interaction between work-life balance and job satisfaction. The mean score in the case of the first statement "*Work-life balance is important for long-term job satisfaction*" was 9.08 and in the case of the second statement "*I have the opportunity to reconcile work with my personal life needs, I feel more satisfied with my work*" – 9.19. The data obtained allow to assume that for teachers the effect of work-life balance on job satisfaction is significant. The second part of the questionnaire assesses the problem of the presence/absence of work-life balance in the life of respondents (Figure 3).

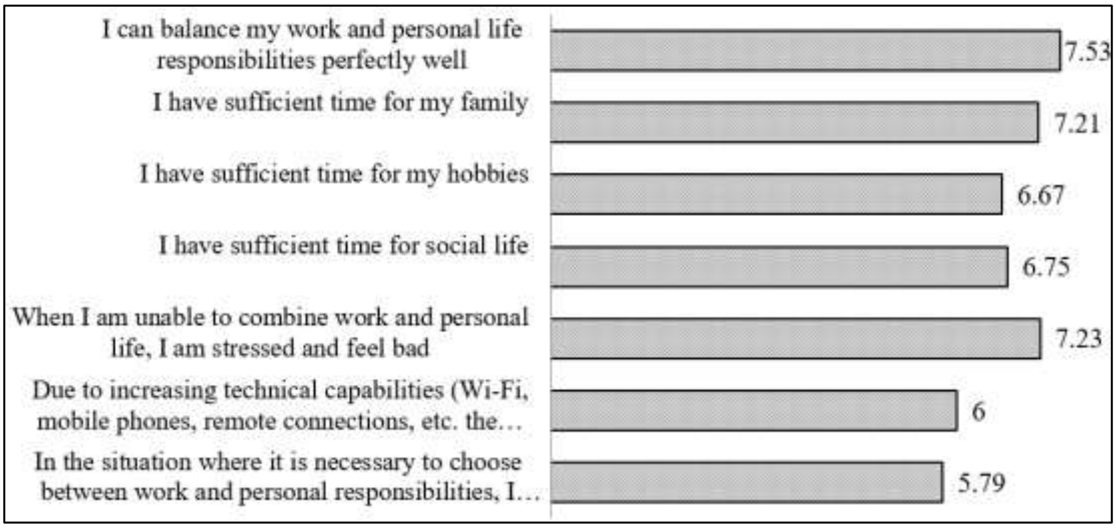


Figure 3. Work-life balance of the respondents (the mean values of the responses $1 \leq M \leq 10$).

The mean scores for the statements (Figure 3) show that the participants of the survey manage to balance their work and personal life quite well (7.53). However, although the respondents maintain that they manage to combine their work and personal life perfectly well, the scores for the statements concerning the time dedicated to the family, hobbies and social life are lower. These three statements reveal the priorities in the respondents' life – they dedicate least time for hobbies (6.67) and social life (6.75). Family remains in the first place, although the respondents do not feel they spend sufficient time for it (7.21).

A quite interesting score was obtained in the case of the statement concerning prioritising work or personal life – the statement "*In the situation where it is necessary to choose between work and personal responsibilities, I prioritise work*" scored 5.79, which is higher than the average. Although the respondents would prioritise work over personal life, the statement "*When I am unable to combine work and personal life, I am stressed*" scored 7.23, which is a sufficiently high score and leads to the conclusion that choosing work is not always pleasant.

In part one and two (questions 2 and 7) the respondents were asked questions concerning the factors that are likely to interfere with maintaining work-life balance. The effect of these factors on job satisfaction and work-life balance was assessed (Figure 4).

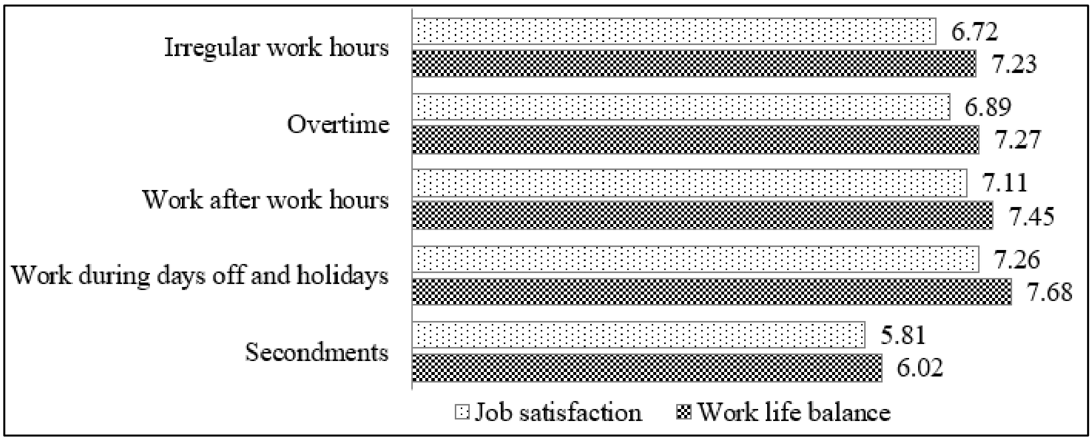


Figure 4. How factors which interfere with work-life balance affect the balance between personal life and job satisfaction of teachers (the mean values of the responses $1 \leq M \leq 10$).

Factors which interfere with work-life balance (Fig. 4) adversely affect work-life balance rather than job satisfaction. Work during days off and holidays was assessed by the respondents as the most negative factor (7.86) for work-life balance. Work at home after work hours (7.45), overtime (7.27) and irregular working hours (7.23) were assessed fairly negatively too. Secondments were least negatively assessed by the respondents within both the context of job satisfaction and work-life balance. This may be due to the fact that not all teachers have an opportunity to travel for work and rather view this as entertainment although this is their working time.

When testing the hypothesis, the aim was to identify whether the respondents were satisfied with each identified job satisfaction factor (Table 1).

Table 1

**Correlation of the scores for work-life balance factors and job satisfaction factors**
(Pearson correlation coefficient)

| | **Work-life balance variables** | | | |
|---|---|---|---|---|
| **Job satisfaction factors** | **I can balance my work and personal life responsibilities perfectly well** | **I have sufficient time for my family** | **I have sufficient time for my hobbies** | **I have sufficient time for social life** |
| Type of work | 0.219** | 0.213** | 0.222** | 0.209** |
| Relationships with colleagues | 0.291** | 0.205** | 0.211* | 0.245** |
| Management | 0.333** | 0.243** | 0.247** | 0.277** |
| Working conditions and safety | 0.281** | 0.238** | 0.249** | 0.237** |
| Income | 0.213** | 0.198** | 0.183** | 0.169** |
| Performance evaluation | 0.304** | 0.239** | 0.245** | 0.208** |
| Level of independence | 0.174** | 0.146* | 0.141* | 0.162* |
| Work-life balance | 0.400** | 0.341** | 0.323** | 0.366* |
| Flexible work opportunities | 0.325** | 0.261** | 0.245** | 0.297** |

*p<0.05; **p<0.01 (Source: prepared by the authors)

After performing the correlation analysis, no strong links between variables were observed. Very weak correlation between the satisfaction of the respondents with their management and work-life balance was established. The better the individual gets on with his superiors, the better he combines his work and personal life responsibilities. This could be explained by more humane relationships between the employee and the manager, where the manager understands the employee's personal concerns and allows the employee to deal with them without causing the employee additional stress about it.

The better the individual is able to combine his work-life responsibilities, the more time he has for his family, hobbies and social life, the more he is satisfied with his work-life balance. The correlation between these factors, albeit very weak, proves this. Also, it is important to note that the more an individual is satisfied with flexible working, the better he combines his work and personal life responsibilities and has time for social life. Thus, it can be said that flexible work opportunities open the way for those aspects of life for which otherwise no time is left.

### Evaluation of the survey results

During the survey assumptions were made that work-life balance leads to changes in job satisfaction of teachers and flexible working results in positive changes in personal well-being and job satisfaction. Based on these assumptions, the survey hypothesis was proposed work-life balance leads to changes in job satisfaction. The survey showed that teachers are satisfied with their work and reconcile their work-life obligations sufficiently well. Such results could have caused insignificant correlations between these two variables. The more teachers reconcile their work-life responsibilities, the more time they dedicate to the family, hobbies and social life, the more they feel satisfied with work-life balance as one of the job satisfaction factors.

The respondents whose work involves flexible working feel greater satisfaction with their relationship with the management, their working conditions, and evaluation of performance compared to the teachers who do not have the opportunity of flexible work. During the survey it was established that flexible working hour arrangement helps the balance between personal well-being and job satisfaction: teachers can dedicate time for professional development and career without neglecting the family and personal hobbies. It can be assumed that the more teachers are satisfied with the flexible work opportunities, the better they combine their work and personal life responsibilities and have time for social life. It can be said that the flexible work opportunities open the way for those aspects of life for which otherwise no time is left.

## Conclusions

The analysis of the concept and meaning of work-life balance allowed approaching this phenomenon from several different perspectives: the conflict and supplementary factor. It can be concluded that, if work-life balance is in the conflict state and the teacher is not satisfied with his work, the educational institution may suffer adverse consequences (employee turnover, stress).

The analysis of the survey on work-life balance and job satisfaction revealed statistics on the real situation concerning this problem in Lithuania. On the basis of the results of the empirical research, the main factors affecting job satisfaction of teachers were identified, the most prominent of which is the type of the work, relationships with colleagues and trust in their educational institution.

After performing the empirical research, the most effective measures which affect the balance between personal well-being and job satisfaction of teachers were identified. The respondents specified the opportunity for flexible working time, quality workplace and duration of working hours (part-time work).

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# A Multi-Aspect View on the Purposefulness of University Students as Prospective Teachers

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**Abstract**: Securing the quality and purposefulness competitiveness of education is one of the most topical issues in contemporary society. It can be achieved if there are competent and competitive teachers. The contemporary society requires that every individual, including prospective teachers, use their abilities, knowledge and skills, be persistent, be able to work and achieve their goals under the conditions of high levels of stress and the changing environment, act prudently and maintain purposefulness in their life activity. The present article constitutes a multi-aspect theoretical and empirical study, analysis and evaluation of the purposefulness of university students – prospective teachers with regard to: 1) the direction of personality, including the needs and motives of activity; 2) teachers' preparedness for professional activity; 3) the competitiveness of specialists, including teachers, in the areas where experience is the basis for competitiveness, 4) as well as self-directed learning and career self-management. The aim of the article is to present the results of theoretical and empirical research, evaluating the purposefulness of students – prospective teachers from various aspects. The empirical research was based on the methods of survey and experience reflection. There was used a survey questionnaire. The survey sample included 108 first-year and second-year students of the University of Latvia enrolled in different teacher education programmes. During data processing the obtained results are statistically significant. Results show that prospective teachers need knowledge on promoting purposefulness to be able to choose their life goals and be aware of the possibilities to achieve them. The formation of purposefulness in the process of studies is one of the key opportunities that develop students' self-regulation skills and promote the development of self-confidence and self-esteem. Regarding the formation of purposefulness, it is very important for prospective students to perceive studies as a process personally significant for them. In such a way, they develop their self-experience where learning becomes personally relevant for them. The results of the research show that most students do not regard the studies as a process personally significant for them.

**Keywords**: purposefulness, prospective teachers, career self-management, self-actualization, university education.

## Introduction

"Latvia 2030 - Sustainable Development Strategy of Latvia" emphasizes that education is one of the most important factors ensuring Latvia's economic growth, competitiveness and sustainable development (Sustainable Development Strategy..., 2010).

The need for a conceptually new teacher-training system is highlighted in the most authoritative OECD report on the quality of education in in the world (Education at a Glance..., 2018). Several major projects funded by ESF are implemented in Latvia aimed at radically changing the standards and approaches to the content of general education until 2023, as well as restructuring teacher-training programmes. It is envisaged that the motivation of candidates and their suitability for the work in educational institutions will be assessed when enrolling potential students for teacher-training programmes at the institutions of higher education (National Reform Programme..., 2018, 51).

In the period since Latvia regained its independence, significant reforms have been carried out in the system of education. One of the strategic objectives for the development of higher education is enhancing its quality and competitiveness.

The competitiveness of education is not possible without the competitiveness of competent teachers. Therefore, when educating prospective teachers, particular attention must be paid to the development of teachers' competitiveness, i.e., the development of their purposefulness since the ***purposefulness of a teacher as a personality and specialist is one of the key indicators of competitiveness***.

The sustainability of contemporary education largely depends on the extent to which it meets the needs of society. The society requires that every individual be able to use their abilities, knowledge and skills, be persistent, be able to work and achieve their goals under the conditions of high levels of stress and the changing environment, act prudently and maintain purposefulness in their life activities.

The topicality of facilitating the development of purposefulness of young and prospective teachers in the process of higher education is also underpinned by the issue concerning the inclusion of teachers as specialists in the labour market in the current economic conditions because not all young specialists are able to evaluate their professionalism adequately and fit into their work-place, i.e., a school or pre-school environment. Therefore, teacher mobility, the flexibility of thinking and actions as well as the ability to actualize themselves in the changing environment have a significant impact on their purposefulness, and vice versa - to be able to meet challenges in the educational environment, including the undergoing reforms, and actualize themselves as professionals, teachers need clear life goals and professional goals. An important factor related to the awareness and achieving of these goals is the professional identity of prospective and young teachers, i.e., whether a young specialist identifies himself/herself with the chosen profession and intends to connect his/her career with the teaching profession.

Purposefulness in one's career self-management also indicates the extent to which a prospective teacher is ***ready for independent professional activity and the subsequent life-long professional self-development***.

***The aim of the article*** is to present the results of theoretical and empirical research, evaluating the purposefulness of students – prospective teachers from various aspects.

## Methodology

In order to substantiate and evaluate the purposefulness of prospective teachers and the topicality of facilitating it at the institutions of higher education from a multi-aspect perspective, there was conducted both theoretical research and an empirical study.

The theoretical research was conducted in various directions:

- ***Goals as an integral part of the structure of personality direction and one of the sources of motivation***, but personality direction as a personality core (Covington, 1992; Gokce, 2010; Kalnina, Katane, 2010; Leontiev, 1978/2000; Nuttin, Lens, 1984; Rubinstein, 1989/2004; Schunk, Pajares, 2009);
- ***Personality needs as the precondition for purposefulness*** (Bandura, 1977; Bandura, 1986; Maslow, 1954; Nuttin, Lens, 1984; White, 1959; Winch, Foreman-Peck, 2000);
- ***Purposefulness as the indicator of competitiveness, including demandability and employability, whereas experience is the basis of competitiveness*** (Asonitou, 2015; Boholano et al., 2016; Bogoyavlenskaya, Klioueva, 2013; Kalnina, Katane, 2010; Katane, 2010; Katane, 2011a; Katane, 2011b; Katane, Baltusite, Katans, 2017; Shirobokov, Roe, 2005);
- ***Purposefulness as the indicator of teacher's psychological preparedness for independent professional activity*** (Baltusite, 2013; Baltusite, Katane, 2014; Strode, 2010; Wang et al., 2018);
- ***Purposefulness as a precondition for and the result of continuous education, self-directed learning, life-long professional self-development and self-determination, as well as career self-management*** (Baltusite, Katane, 2017; Bary, Rees, 2006; Iriste, Katane, 2016; Katane, Baltusite, Katans, 2017; Paradnike, Endriulaitiene, Bandzeviciene, 2016; Strods, 2006; Strods, 2012).

The evaluation of the purposefulness of prospective teachers was based on scientific research methodology (Laing, Todd, 2015; Walsh, Sattes, 2016).

*Research methods.* The theoretical research involved the study, analysis and evaluation of scientific literature, including various kinds of regulatory documents concerning the purposefulness of young or prospective specialists, including teachers, from various perspectives and in various contexts.

The empirical study was based on the methods of survey and experience reflection. There was used a survey questionnaire with closed questions according to a 5-point Likert scale with responses ranging from 1 – *strongly disagree* to 5 – *strongly agree*. The reliability (inter-item consistency) of the questionnaire according to Cronbach alpha was 0.91.

The data processing was performed by means of several methods of mathematical statistics to obtain both descriptive statistics and statistical conclusions (Mann-Whitney U test, Kruskal Wallis Test, Spearman's rank correlation test) using SPSS software.

The survey sample included 108 first-year and second-year students of the University of Latvia enrolled in different teacher education programmes, including the training of pre-school teachers (68 %), elementary school teachers (17 %), the prospective managers of education institutions (10 %) and others (5%). There were 87 (80.6 %) part-time students and 21 (19.4 %) full-time student among the respondents, with 107 females and 1 male among them. The average age of the respondents was 31.2. The survey was conducted in 2018.

The present article contains part of the theoretical and empirical results of the study.

## Results and Discussion

### *Results of Theoretical Research and Discussion*

The link between purposefulness and motivation is highlighted in studies concerning the life goals of youth and their notions of expected results, professional interests and career development goals, youth purposefulness, work in the leisure time, educational achievements and career development (Bernande, 2013; Caughlin, 2010; Jurgena, Gedrovics, 2011; Jurgena, Gedrovics, Cedere, 2014; Kalnina, Katane, 2010; Kardeliene, 2016; Lamanauskas, Augiene, 2017).

The factors concerning the purposefulness of prospective teachers - the need to achieve their goals, the awareness and setting of goals, choosing means to achieve one's goals, using the means appropriate to a particular situation, making specific plans for future life activities and taking specific pro-active action in order to implement the goals – are associated with the awareness of one's possibilities and achievements and their adequate assessment (Bernande, 2013).

Students' life activities at the institution of higher education and their pedagogic management are objective factors promoting purposefulness and personal achievements, as well as the development of such personal qualities as independence, responsibility, initiative and creativity.

The awareness of one's goals promotes the development of personality provided the goal becomes a motive for student's activity. Therefore, it is necessary to pay attention not only to the objective meaning of the goal, but also to its subjective sense.

The methodological foundation of the study comprises: ideas about individual's activity and the meaning of life activities (Leontiev, 1978/2000; Rubinstein, 1989/2004), goal theory (Leontiev, 1978/2000; Locke, Latham, 1991; May, 1989; Rubinstein, 1989/2004; Vallerand, 1997; Weiner, 1996) and attitude theory (Leontiev, 1978/2000).

Within the framework of our study, it is important to understand that achieving goals and purposeful behaviour are very important for the development of learning motivation (Locke, Latham, 1991). The theory of academic motivation proposed by R.J. Vallerand (Vallerand, 1997) reveals the essence of a-motivation, or no-motivation, which means that a student is unable to explain the motives of his/her activity, or these motives are vague and diffusive. B. Weiner (Weiner, 1996; Weiner, 2000), the author of attribution theory, also expressed an important idea that most students tend to explain their failures attributively, paying more attention to outer circumstances than to their self-actualization.

Regarding the promoton of the development of student purposefulness, the idea proposed by S.L. Rubinstein (1989/2004) about the interconnection of will and the goal and the progression form external to internal control is also important. Will does not stem directly from needs, but from the awareness of motives and their result – the goal. The goal itself is the dominant stimulus. The regulation of activity by means of will is conscious and mediated by goals and motives. Therefore, purposefulness is defined as the most important volitional feature of personality that manifests itself in the ability to set and achieve goals. From the perspective of life activities, the goal can be analysed as a structural component of activity, as the component of meaning and the component of life activity. The most important aspect regarding the definition of the goal is the idea of a goal as a deliberate motive and task. The goal of activity is the interconnection between a subjective need and the notion of what is necessary to meet this need

(Rubinstein, 1989/2004), the mentally predicted/envisaged desirable or achievable result; the goal expresses the meaning of any activity and characterises the content of human life (May, 1989).

Purposefulness is defined as the most important characteristic of individual's will which manifests itself in the ability to set and achieve goals. A purposeful individual can understand and analyse the sphere of his/her motivation and needs independently and profoundly and match his/her desires to the knowledge, skills, abilities and possibilities (Bernande, 2013).

The development of youth determination involves three stages of self-regulation: the choice of goals, the stimulus to take action in order to reach the desirable goal and monitoring one's progress towards achieving the goal (Meissner, 2009).

The factors promoting individual's purposefulness both in education and in other areas of life activity can be diverse: individual's ability to understand and set the goal, which is related to initiative, self-regulation, which is associated with undertaking responsibility for one's actions and is secured by adequate self-confidence (Bandura, 1977; Bandura, 1986, Rubinstein, 1989/2004), the use of appropriate means for achieving one's goals (Yeager, Bundick, 2009).

It should be noted that teacher's assistance is an essential factor in developing students' awareness of their goals and goal-setting skills (Vallerand, 1997), as well as the interconnection between purposefulness and motivation, which is shown by studies concerning the life goals of the youth and their notions about expected results and career development goals (Hirschi, 2010; Jurgena, Gedrovics, 2011). On the other hand, motivation as a factor promoting purposefulness is closely linked with attitudes. Attitudes manifest themselves and develop in the process of satisfying needs and activities aimed at achieving goals in accordance with the possibilities in particular social conditions. Attitudes manifest themselves in individual's actions and behaviour (Bernande, 2013).

The analysis of the theoretical literature led to the conclusion that regarding the development of purposefulness it is important to evaluate the abilities of prospective teachers to be aware of the goal of their activities, to set goals and choose the means for achieving them, to use these means appropriately and to stimulate the need to achieve the goals.

In the process of studies, the activities of teachers and students are associated with direct and reflexive relationships that manifest themselves in their active inter-connection. This inter-connection is underpinned by common goals: to teach and to learn. If a student possesses the aforementioned components that promote purposefulness: the meaning of life, attitudes, will, needs, motivation and the goal, it can be assumed that there will be a purposeful process of learning, and purposefulness will be promoted in this process (Bernande, 2013).

The process of studies as student's cognitive activity promotes not only their intellectual, emotional, volitional and physical development and the cognition of the diversity of reality, but also forms various social values and creates the experience of self-cognition and self-actualization (Lamanauskas, Augiene, 2017). Educational and personal success are criteria promoting purposefulness.

According to statistics (Statistika par augstako..., 2018), in the academic year 2017/2018, 19350 students started their studies at the institutions of higher education (universities and colleges in Latvia), but only 14587 completed them. A question arises: What are the reasons behind the decision of so many students to renounce their choice, i.e. the goal to become specialists in a certain profession? One of the answers is the following: there is a contradiction between the strivings of prospective teachers to attain their goals, on the one hand, and the satisfaction with the achieved results, on the other hand. As a result, young people cannot achieve the goals they have set, and they lose motivation.

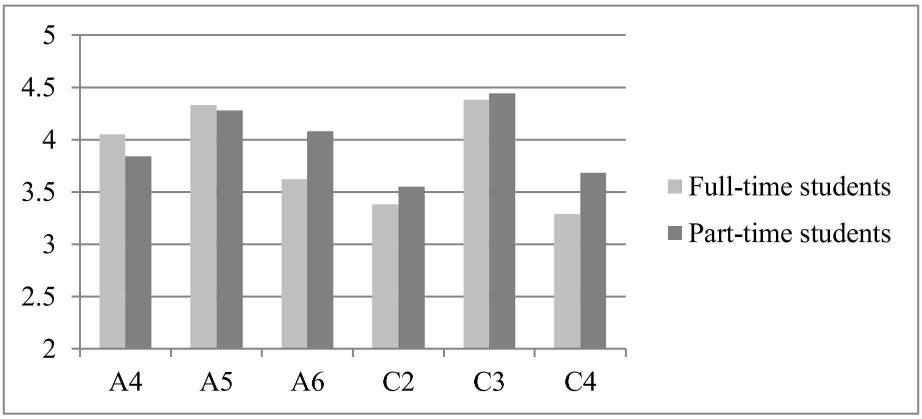
Purposefulness lies at the basis of individual's life activities and ensures achievements in educational institutions, outside them and in subsequent life activities. The development of purposefulness is underpinned by the goal of life activities, the function of which is individual's plan of his/her life path and its implementation.

***Results of Empirical Research and Discussion***

The results of the survey show the understanding of the goal in prospective teachers enrolled in different teacher training programmes as well as their readiness for purposeful activity, their evaluation of the studies at the institution of higher education and the possibilities to achieve the goals they have set. The study does not show significant differences between the purposefulness of first-year and second-year students. The responses of the students enrolled in different teacher-training programmes are also similar. Looking at the mean values of the responses, it can be inferred that prospective teachers are responsible and independent; they are aware of their goals and are able to set them, to choose appropriate means for achieving these goals and apply them. This is indicated by comparatively high mean values of the responses (M = 3.52 - 4.68), which correspond to the dominant responses *"agree"* and *"strongly agree"* in the 5-point scale. Both first-year and second-year students, regardless of the form of studies, regard the awareness of their goals and needs as high (M = 4.21, SD = 0.68 and M = 4.29, SD = 0.71 respectively).

There can be observed a slight difference between the views of full-time and part-time students. Due to having little study experience, the respondents evaluate their academic success cautiously; at the same time, they regard institutions of higher education as very important for them (C3); M = 4.38 and 4.44 (Figure 1).

As the results of the survey do not correspond to the normal distribution, Mann-Whitney U test was used to compare both independent groups. Mann-Whitney U test made it possible to single out one statistically significant difference in the views of full-time students (FT) and part-time students (PT) - the part-time students are better aware of their goals than the full-time students ($M_{FT} = 3.62$, $M_{PT} = 4.08$, $Z = -2.4$, $p = 0.02$). We believe that the results of the study could be explained by the actualization of adult self-experience. Self-experience refers to the knowledge, skills and attitudes obtained, experienced and evaluated in life activity that have transformed into personally significant values (Brigmane, 2014). As most of the part-time students are already involved in pedagogical work, their primary experience is richer.




Abbreviations:
A4 – ability to use means for achieving goals;
A5 – need to achieve the goal;
A6 – clarity of one's goals;
C2 – originality, uniqueness of academic achievement;
C3 – personal significance of academic achievement;
C4 – significance of academic achievement for other people.

Figure 1. Factors characterising the purposefulness of full-time and part-time students (the mean values of the responses $1 \leq M \leq 5$).

The next aspect of the study was respondents' views concerning the choice of various means to succeed at the institution of higher education and how they correspond to the relatively high indicators of student purposefulness. According to the respondents, the key factors leading to success in their studies are knowledge, skills and experience (M = 4.68, SD = 0.53), the ability to analyse and draw conclusions (M= 4.43, SD = 0.60) and the invested effort (M = 4.44, SD = 0.78). The students attach less importance to various connections and friends (M = 3.99, SD = 0.86).

Table 1

**The correlation between the choice of means to attain academic success and the self-assessment of purposefulness** (Spearman's rank correlation coefficients $r_s$)

| Self-assessment of purposefulness (factors A) / Means to attain academic success at the institution of higher education (factors F) | A1. Awareness of the goal of activity | A2. Ability to set the goal | A3. Ability to select means to achieve the goal | A4. Ability to use means to achieve the goal | A5. Need to achieve the goal | A6. Clarity of one's goals | A7. Optimism |
|---|---|---|---|---|---|---|---|
| F1. Effort | 0.28** | 0.15 | 0.20* | 0.17 | 0.22* | 0.20* | 0.04 |
| F2. Knowledge, skills, experience | 0.10 | 0.04 | 0.10 | 0.00 | 0.14 | 0.10 | 0.12 |
| F3. Connections, friends | 0.13 | 0.17 | 0.27** | 0.31** | 0.17 | 0.24* | 0.13 |
| F4. Ability to set goals | 0.40** | 0.43** | 0.32** | 0.30** | 0.34** | 0.18 | 0.24* |
| F5. Ability to analyse, conclude and plan | 0.36** | 0.41** | 0.28** | 0.28** | 0.38** | 0.15 | 0.28** |
| F6. Potentialities, talents | 0.19* | 0.29** | 0.04 | 0.16 | 0.17 | -0.01 | 0.16 |

**. Correlation is significant at the 0.01 level.
*. Correlation is significant at the 0.05 level.

The data were processed by means of Spearman's rank correlation test, and the obtained results show a strong correlation between the awareness of the goal of activity (A1), the ability to set the goal (F4), $r_s = 0.40$, and the ability to analyse and draw conclusions (F5), $r_s = 0.36$ (Table 1). However, there is no significant correlation between factors A1 – A7, which characterise purposefulness, and factor F2 (knowledge, skills and experience). This fact implies significant differences in respondents' views, showing that not all the respondents see the connection between achieving the goal and knowledge, skills and experience as the means for achieving this goal. There is weak correlation between factors A1 – A7 and effort as the means to attain academic success at the institution of higher education (F1). The students see the role of their individual potentialities and talents (F6) only regarding the ability to set the goal, where a weak correlation can be observed.

The obtained results demonstrate the diversity of students' views. Therefore, in the following stage of the study, all the respondents were divided into numerically similar groups according to their age: group A – under the age of 25 (n = 35), group B – ages 26-34 (n = 35) and group C – over the age of 35 (n = 38). The intention was to clarify how the awareness of the goal and the ways of achieving it correlates with life experience. As a result of the correlation analysis by groups, it was found that the correlation between the need to achieve the goal and the effort to be invested in achieving this goal was more strongly expressed in the younger participants of the survey (group A): $r_s= 0.41$, $p = 0.01$ compared to groups B and C. On the other hand, in the respondents with bigger life experience (groups B and C), the effort invested in the studies at the institution of higher education correlates with the awareness of the goal ($r_s= 0.38$, $p = 0.02$; $r_s= 0.34$, $p = 0.03$, respectively), but group A does not display this correlation. Thus, the more a student is aware of his/her goal, the more importance is attached to work as the means for gaining academic success.

Another characteristic were the age groups differ is the evaluation of the role of various connections and friends (F3). The younger respondents (groups A and B) regard it as important for their academic success, the evidence of which is a strong correlation between factor F3 and the ability to select means (A3): $r_s= 0.45$, $p = 0.01$; $r_s= 0.36$, $p = 0.04$, respectively. The correlation analysis does not identify this correlation for group C, which means that older students regard making contacts and the help of friends as less important for their studies.

Table 2

**The comparison of respondents' purposefulness by age groups**

| Factor | Age group | Mean | SD | Mean Rank | Chi-Square | df | p |
|---|---|---|---|---|---|---|---|
| A1 | A<br>B<br>C | 3.94<br>4.29<br>4.39 | 0.68<br>0.62<br>0.68 | 43.46<br>57.00<br>62.37 | 8.55 | 2 | 0.014 |
| A6 | A<br>B<br>C | 3.63<br>4.17<br>4.16 | 0.94<br>0.75<br>0.72 | 42.97<br>60.13<br>59.93 | 8.12 | 2 | 0.017 |
| C4 | A<br>B<br>C | 3.23<br>3.66<br>3.89 | 1.11<br>0.68<br>1.01 | 44.43<br>54.33<br>63.93 | 7.83 | 2 | 0.020 |
| F1 | A<br>B<br>C | 4.37<br>4.20<br>4.74 | 0.69<br>0.99<br>0.50 | 49.86<br>47.67<br>65.07 | 8.75 | 2 | 0.013 |

Kruskal Wallis Test was used for the graphic comparison of the age groups. The test shows that there are statistically significant differences between the age groups (Table 2). Higher mean values (M) and higher-ranking values of the responses refer to the respondents with more life experience, which implies a higher level of purposefulness compared to the respondents who have entered the institution of higher education right after finishing secondary school or less than 6 years after that. Chi-Square with the significance level $p = 0.013 - 0.020$ indicates the presence of statistically significant differences between the age groups.

## Conclusions

- Goals are an integral part of the structure of personality direction and one of the sources of motivation, whereas personality direction is the core of personality, but personality needs are a precondition for purposefulness. Purposefulness is an important indicator of teacher's competitiveness, i.e., demandability and employability, as well as the psychological preparedness for independent professional activity, while experience is the basis for competitiveness, including purposefulness. Purposefulness also refers to the precondition and result of continuous education, self-directed learning, life-long professional development and self-determination, as well as career self-direction. Purposefulness as a general psychological personality feature forms and develops in the process of self-regulation and self-actualization of prospective teachers.
- In order to facilitate the formation of purposefulness, it is important to single out and evaluate factors promoting purposefulness: the need to achieve the goal, the awareness of one's goals and setting the goals, the choice of the means to achieve the goals, the ability to use the means appropriate for a particular situation to achieve the goals, making a specific plan for future life activities and the implementation of this plan. It was established in the present study that these skills are not high, but most of the students are aware of the necessity to be purposeful in their activities. Overall, students' answers are neutral because the first-year students are still developing their purposefulness skills.
- Prospective teachers need knowledge how to facilitate the development of purposefulness, the awareness of choosing their life goals and the possibilities of achieving them. The facilitation of purposefulness in the process of studies is one of the key opportunities to develop students' self-regulation skills and promote the development of self-confidence and self-esteem.
- The results obtained in the study show that prospective teachers are responsible and independent; they are aware of the goals of their activities, are able to set them, choose appropriate means for achieving these goals and apply them.

- The results of both descriptive statistics and statistical conclusions show that not all the respondents see a connection between achieving the goal and knowledge, skills and experience as the means of achieving this goal. The respondents see the role of their individual potentialities and talents only regarding the ability to set the goal, where a weak correlation can be observed.
- There can be singled out slight differences between the views of full-time and part-time students. Due to their little study experience, the students evaluate their academic success cautiously; at the same time, they regard studies at the institution of higher education as very important for their lives.
- The higher mean values and higher-ranking values of responses correspond to the respondents having more life experience, which implies a higher level of purposefulness compared to the respondents who have entered the university right after finishing secondary school or less than 6 years after that. The results of comparative statistics indicate that there are statistically significant differences between the age groups.
- Regarding the facilitation of the development of purposefulness, it is important to highlight the following idea: if prospective teachers understand the studies as the process of activity personally significant for themselves, they are gaining self-experience, where the process of studies is becoming personally significant for them. The data of the study imply that most students do not regard their studies as the process of activity significant for them.

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# Informal Professional Development of Higher Education Teachers in Kazakhstan

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**Abstract:** Teacher professional development is a complex process, and this involves many processes, mechanisms, actions, and elements and it is difficult to specify exact outcomes in every instance. The aim of the study is to highlight the ways teachers perceive the essence of professional development and possible perspectives of an informal learning. The study is qualitative in nature by the usage of semi-structured interviews and involve four university teachers who currently work at different types of higher education institutions (HEI) in Kazakhstan. The results of this study show that formal professional development activities are happen to be the genesis of informal learning activities, as university teachers still refer the workplace learning being the basis of their informal learning. Formal and informal types of learning seem to be complementary as formal professional development activities create a need and provide a context for the use of new knowledge, and informal activities complete the gaps of on-going experience.

**Keywords:** professional development, higher education, informal professional learning.

## Introduction

One of the main leading spheres of personal development, goal and sense of social realization and self-development of human being is the professional area of an individual. It's the one which comprises the main part of people's activities and we devote significant part of our whole life to it. To most of us professional sphere represents an opportunity to satisfy all range of needs, to discover abilities, to maintain ourselves as an individual, and to reach a particular social status. Thus, in the professional sphere a man can act as a self-actualizing individual and as a subject of self- esteem. In modern context the notion 'profession' is considered as a stable and relatively a wide variety of professional life which is a source of income, which provides a certain set of theoretical knowledge, practical experience and work skills and which is defined by the division of labour and its professional context as well; from the other hand, it's a huge group of people united by a common type of activity and working career. The aggregate of professions and their interrelation compose the professional structure of the society (Abbott, 2014).

Professional formation composes specific steps connected with significant psychophysiological and social-psychological peculiarities which provide successful performance of the professional activity (Vila, Germenji, 2016). Professional development of teachers is regarded as the most important part of their professional activity and there are a number of ways and opportunities that can be carried out in order to improve and enhance their knowledge and educational peculiarities. Professional development is identified “as activities that develop an individual’s skills, knowledge, expertise and other characteristics as a teacher” (OECD, 2009). In order to make professional development efficient and effective for the teachers’ content knowledge and pedagogical capacities, it's essential that professional development is “on-going, includes training, practice and feedback, and provides adequate time and follow-up support” (OECD, 2009). D. Richter and his colleagues defined professional development as an uptake of formal and informal learning opportunities that enhance and deepen teachers’ skills and knowledge and other professional activities (Richter et al., 2011).

Teacher professional learning is a complex process (Baltusite, Katane, 2017) and “professional development is about teachers learning, learning how to learn, and transforming their knowledge into practice for the benefit of their students’ growth” (Avalos, 2011, 10). This "involves many processes, mechanisms, actions, and elements and it is difficult to specify exact outcomes in every instance" (Opfer, Pedder, 2011, 379). The aim of the study is to highlight the ways teachers perceive the essence of professional development and possible perspectives of an informal learning.

## Methodology

The general research question set in this study is: What are perceived opportunities of university teachers in informal professional learning? With the regard to the question we delved into the matter of how teachers recognize the essence of professional development and possible perspectives of an informal learning. We pinpointed the main activities teachers are involved for informal professional development and influencing aspects like workplace contexts. In order to find explanation to the research questions four university teachers were involved into this study who currently work at different types of higher education institutions in Kazakhstan.

In the interest of finding a profound answer to the main research question, qualitative research method, in particular, *interview* as means for data collection was used since interviews are regarded as one of the rich data sources (Creswell, 2012, 212).

For data collection, semi-structured interview with a set of questions was used. As B. Czarniawska pointed out in her study, “an *interview* is a common enterprise in knowledge production” where the interview process can be taken as a manipulated conversation, being “a rich source of knowledge about social practice insofar as they produce narratives” (Czarniawska, 2004, 47-50). Moreover, interviews, as claimed V.J. Janesick (2016), are one of the essential components of qualitative research in which rich and meaningful data can be elicited. Interviews help researchers in achieving and getting insight into respondents' perspectives (Hatch, 2002). The questions of the interview were formed so that to explore main areas of research (Table 1).

Table 1

**Interview questions**

| Types of questions | Interview questions |
|---|---|
| Information about a teacher's background and experience. | General questions to start the interview and lead to the specifying questions |
| Questions for exploring the ways of teachers' informal learning | Could you please describe how your first year of work in higher education was? What was the most challenging part of it? How did you overcome it? How do you feel about it now?<br>When do you have challenge at your work (for example, problem students) what do you do?<br>Do you usually discuss your work issues with your colleagues and what discouraged and motivated you to do that? |
| Questions on types of informal learning | Do you take extra activities for your professional learning using on-line courses like **Coursera, EdX, HaverdX**? What are the biggest gains?<br>In your opinion, how **online discussion groups or forums** can be used for your professional learning?<br>Do you find useful participating in **conferences, seminars and workshops**? How do you transfer the knowledge acquired in these activities for your professional learning?<br>Do you participate in **networks** referring to your profession? |

As secondary source for the research the policy documents legislated in Kazakhstan were analysed: “Reviews of National Policies for Education: Higher Education in Kazakhstan” (OECD, 2007), “Law on Education of the Republic of Kazakhstan (with changes and additions in 2017) and “State Programme of Education Development for 2011-2020” (State Program of…, 2012).

The participants of the interviews work in different types of HEI: two teachers work in state universities, one - in a private and the other in a mixed type of university (partly state). We were interested in how these types of universities influence on teacher’s professional development, and if there is any difference. The interviews with the university teachers were done via *Skype* due to time and place difference. With the respondents’ consent the interviews were recorded. The participants were informed that the findings will be used only within this particular research project. After, the interviews were transcribed.

**Contextual framework**

Education is considered to be a key priority in “Kazakhstan - 2030” Strategy which seeks to find effective ways to adapt the educational system of the country to the conditions of labour economics.

There are three main bases of State Policy in the field of higher education in Kazakhstan which are the Constitution of the Republic of Kazakhstan, the "Law on Education of the Republic of Kazakhstan" (Law on Education…, 2007), and "State Programme of Education Development for 2011-2020" (State Program of…, 2012) according to which higher education is open to those who have completed general secondary, technical and vocational education or further education.

"Law on Education of the Republic of Kazakhstan" (Law on Education…, 2007), first launched in 1999, is the core and primary law ensuring a general framework for higher education institutions in Kazakhstan to determine its strategy for development. In addition, this law strives to shape new national model for the country's educational system, and it presents principles of the State Policy in the field of education, in particular higher education.

"State Programme of Education Development for 2011-2020" developed by the Ministry of Education and Science aims to increase competitiveness of education and development of human capital through ensuring access to quality education for sustainable economic growth (State Program of…, 2012).

Higher education institutions in Kazakhstan are national research universities, national HEI, research universities, universities, academies or institutes. Conservatories, higher schools and higher colleges have a similar status.

According to its autonomy and state funding higher education institutions (HEI) can be classified into public (state), private and mixed universities. In accordance with the Law, state and public HEI are equal, however in some aspects of functioning these HEI possess definite level of autonomy. Both state and private universities independently hire workers (with the exception of appointing rectors/ heads for state universities), have right to establish international relations with national as well as international partners and conclude agreements on mutual cooperation and collaboration in different fields. In comparison with state universities private universities are characterised with more operational autonomy and demonstrate more flexible management. Whereas state universities have their own budget and right to control them in accordance with the parameters developed by the Ministry of Education and Science. One of the main differences is in salary of employees: salary and rewards are higher in private HEI.

For both types of HEI autonomy is not disseminated in respect of education programs, organization of education process, enrolment of students, awarding their own degrees. For instance, to create and develop new courses in state HEI permit is needed from the Ministry.

**Results and Discussion**

After analysing the transcriptions of the interviews, the following sub-categories emerged:

1. Teacher's perception of professional development (the meaning of the professional development).
2. The main activities in informal professional learning.
3. The possible influencing factors in informal professional learning.

One of the aims of the research is dedicated to the teachers' perception about informal learning in Higher education in Kazakhstan. Currently, the role of informal learning plays a pivotal role in teachers' workplace as well as in their life. The embodiment of it has a great impact in disseminating and advancing the diffusions of professional knowledge that gives the opportunity for them to affiliate with other colleagues and cultivate a huge emergence of knowledge accumulation in order that teachers could attain rationale end in their work. The meaning of informal learning for teachers is regarded as a fundamental and unique one because it is not included in the specific curriculum and is mostly not regulated by universities. Most teachers underpin informal learning but mostly the occurrence of the informal learning is caused by its being unconscious. But at the same time, various informal learning activities and factors can be faced that may have a great impact on teachers' professional development. One can encounter multitude of informal learning activities and factors that may be supportive and conducive for the beginning teachers as well as for experienced teachers.

The interview analysis with the university teachers reveals that the following activities are the main types of informal professional development of teachers in higher education. Regardless of the types of the universities (private or public), these activities are turned out to be common (Figure 1).


Figure 1. Informal professional development activities.

M. Patterson (2005) emphasizes that teaching in *isolation* is not supported in the field of education in the 21st century. In this sense, all of the interviewees found collaboration, peer-learning and elements of mentoring to be beneficial and advantageous both for their personal and professional growth.

Mainly, the teachers learn from colleagues through professional discourse on the matters appearing in daily routine. One teacher noted, "*...I had to plan not only my work in class but also students' individual work and their individual work with teacher, so in terms of this, I mean the volume of work, it was really tough, but today I feel like an expert on planning. So, I'm very thankful to my colleagues. They really helped me a lot at that time*". Another described this informal learning: "*Our staff are very united. Everyone can freely tell his or her opinion on some issue and we discuss it together and make decisions together*". A third teacher commented, "*...I sometimes can discuss any issues or problems with the teachers, they are always open to help me to give their opinions*".

Learning new knowledge is most easily achieved with professional knowledge that is explicit, because it is easily expressed in words. Much professional knowledge, however, is tacit, that is, in the form of practical know-how that is not easily articulated, and so it is difficult to be aware of it. A knowledge audit is most easily conducted in a collaborative environment that encourages frequent professional talk and sharing among teachers. Informal learning happened primarily through face-to-face conversations among fellow teachers, as one of the teachers commented, "*… the head of the chair and even doctors and professors who are already 65-70 years old are always glad to share their experience with novice teachers. Mostly, we, of course, interact with colleagues of the same age and discuss our problems, if they meet the same challenges and how they solve them*".

Teachers informed mentoring activity as both beneficial and efficient. One teacher indicated: "*I was very lucky to have excellent mentors who supported me a lot*." Additionally, mentioning the role of general university meetings (in private universities) for collaborative solution of the emerged questions and problems being helpful in a way.

D. Laurillard (2008, 139) in her article argues that today "education has problems" and these problems can be solved with the help of technology through teachers. In considering the role of a teacher as a researcher the author says, "in the same way as researchers, academics are consummate reflective practitioners, able to respond to and contribute to rapid advances in their field, building on others' work, sharing ideas and results, moving forward collective knowledge and understanding" (Laurillard, 2008, 144).

Several teachers acknowledged the conferences, workshops and seminars are often an opportunity for learning: "*these [conferences, workshops and seminars] are events where people share with their successful experiences, so you can really learn something new and useful from them and later you can even use it in your class. I always do so*". Another teacher noted: "*...it's very useful to participate in seminars and conferences because you can find a lot of new information for yourself, you can discuss a lot of problems... you can use activities used in conferences [workshops]... group works, pair works*".

Despite the popularity of e-learning tools like *Coursera* (Coursera, 2019), *EdX* (EdX, 2019), *HarverdX* (HarverdX, 2019), not all the teachers reported using these tools for informal professional development, but instead indicated using resources from internet, like downloading books. One teacher shared: "*I would choose books with free download as I think they are more helpful for me than all other stuff*". Another teacher mentioned: "*...because sometimes it's difficult to explain some new topics for students... it's useful for finding extra activities, extra information for students and for myself*".

We live in a promptly changing world which logic of changes, in many respects, is defined by the development of information and communication technologies. It's characterized by an existence of an essential contradiction between generation of teachers and generation of students. The senior generation is needed to be retrained and adapt constantly to cardinally changing working conditions and life in general. Tendencies of the development of the society say that in the present world successful person is a person who is able to find quickly relevant information and effectively apply it to the solution of different tasks (Oliver, 2002; Sein, Harindranath, 2004; McFarlane, Sakellariou, 2002). One of the teachers admitted: "*If I feel lack of some knowledge and if my colleagues can't prompt me, of course, I use the internet, different online courses or just YouTube, because there is a great amount of rather good content. If it's something very difficult there is also number of free or charged courses. So, in the cases of necessity of lacking knowledge, I use resources of the internet*".

In Kazakhstan most of the beginner teachers of higher education institutions often encounter the challenges that are devoted to their educational process and organization, structure and administration of the university during first two or three years of their work. Such challenges embrace difficulties in lesson planning, paper work, work with problematic students, students' behaviour, mentoring for students, research and curriculum peculiarities, functional work of department, assessment criteria. One of the teachers emphasized: "*I do not do any learning for now because I do not have any free time for this… a lot of time for filling all these papers, reports about the group, about the progress*". While the other mentioned: "*Now one of my tasks in my department is to be I am the one who is responsible for the students' exam papers, midterm exam papers, and the one who observe the other teacher. I think that another challenge is that most of the teachers are burnt out at their workplace. I am one of a few teachers who organized different kinds of events, conferences, meetings with students*". The answers of the interviewees show that the main challenge that they face is the lack of time because of the paper routine and extra work that they do in the workplace.

The responses helped to identify the main factors that influence teachers' informal learning which can possibly influence teachers' learning and lead into the deterioration in teachers' professional development. The key factors are signified to be lack of time, teachers' burning out at their workplaces and teachers' overload works. These factors identified correspond with those presented in the theoretical part of the research. As the lack of time is considered to be the key factor and it is essential to show that according to the official documents of higher educational institutions (organizational charter of university, internal regulations of university) the university managements meet the requirements of regulatory legal acts, in particular, Education Law, Science Law and Labour Legislation of the Republic of Kazakhstan. For example, according to the Labour Legislation of the Republic of Kazakhstan, in internal regulations of university there are the definite amounts of obligatory hours that teachers should spend at their workplaces.

Additionally, it should be mentioned that there are other different kinds of factors impacting on teachers' informal learning such as family responsibilities, conducting educational guidance, participation and organization of events, duty in the dormitories (teachers attend the dormitories one by one to check students conditions and needs), mentoring (preparing portfolio for each students, filling different kinds of papers and detailed information about students), organization of mentoring hours with student groups, teachers' beliefs, personal interests, age, time, teaching experience and other social features.

## Conclusions

Conscious movement to more successful indicators in teacher education is defined with the need in the professional development which is in turn is implemented in the following cases: awareness of teachers for the need of changes in teacher education; the availability of resources and readiness of the administration to support the initiatives of teachers; defining the goals and models for professional development; organization of feedbacks and support in case of the emergence of new challenges; the availability to make diagnosis of the results of professional development.

It can be concluded that formal professional development activities are happen to be the genesis of these informal learning activities, as teachers still refer the workplace learning being the basis of their informal learning. Formal and informal types of learning seem to be complementary as formal professional development activities create a need and provide a context for the use of new knowledge, and informal activities complete the gaps of on-going experience.

Teachers in this study reported informal learning as a key component of their learning, especially the professional discourse they highly valued. The teachers noted that efficient use of time is crucial in this type of learning activity. They acknowledged the symbiotic relationship between formal and informal activities, but also noted the importance of a collaborative school culture as a critical basis for this informal mode of learning.

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# Planning Teachers' Professional Development

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**Abstract**: There is a growing trend to put the national and institutional priorities over the personal teachers' preferences when planning the professional development activities. The question arises: how to find the balance between individual and organizational learning needs and align those with policy priorities? The study aims to pilot the questionnaire, and the interview questions based on the questionnaire results, to refine the interview focus and select a relevant sample for the broader research on university teachers' professional development. The data collection tools were selected based on the contextual nature of the aspect of professional development. A small-scale survey based on TALIS questionnaire was modified to address the needs of the study. The questionnaire was used as a basis for developing and refining interview questions. It was also used to mediate the interview questions. The conclusions are organized under the three major categories: costs of teachers' professional development, leadership, and distribution of roles, collaboration, and networking.

**Keywords**: higher education, teachers' professional development, collaboration, networking, planning.

## Introduction

Literature advises that sustainable professional development cannot be achieved solely through the provision of training; training itself only raises awareness but does not guarantee the application of the acquired knowledge and skills (Pedder, Opfer, 2010; Stoll, 2006). There is also evidence that in-service professional development proves to be the most cost-effective if it involves continuity and structured organization. Therefore, the goal of teachers' professional development is to create new practices based on data and evidence through the analysis of practical tools applicable to the specific context and its adaptation for the particular needs that lead to the elaboration of those practices into daily activities.

The teachers' professional development should incorporate the aspects under three major categories: training in professional knowledge, which incorporated subject area, pedagogy, and learning, training in skills and techniques, and ethics and attitudes that envision the development of sustainability (Frost, Akmal, Kingrey, 2010). Thus, the activities incorporated into teachers' professional development should fall into three categories and be sufficiently balanced to ensure the efficiency of emerging practices. The primary challenges to efficient teachers' professional development can be organized under, but not limited to, the following three categories: planning, evaluation, and dissemination. J. Pavulens highlights the necessity of career management competence development through the processes of personal reflection, reconstruction and social interaction, and implementation of certain activities to achieve effective performance management and successful carrer (Pavulens, 2015, 331).

There is a growing trend to put the national and institutional priorities over the personal teachers' preferences when planning the professional development activities. The question arises: how to find the balance between individual and organizational learning needs and align those with policy priorities?

Literature review suggests that senior leaders and managers are perceived as an authority in organizing professional development activities; at the same time, they rarely lead these events. The distribution of roles and responsibilities needs thoughtful accuracy to provide competent teachers' professional development.

Post-training evaluation is necessary to measure the participants' level of interest, perceived relevance of the training activities, usefulness for the desired goal (Beaty, 1998). Dissemination should include data collection, its thorough analysis, and reflection. Evaluation without properly planned outcomes and specific criteria add little to no effect on the teachers' professional development. Evaluative surveys/questionnaires are the most common types of data collection but are not sufficient enough as a stand-alone tool to achieve the re-thinking of old ideas and developing new priorities.

In the case study developed by C. Day (1999) the stated problem was that teachers' professional development lacked systematic collection and evaluation of data. Much attention was devoted to initial training of teachers at the given school, while senior teachers were engaged in unsystematic purely voluntary and unstructured continuous learning. Though the principal of the school agrees teachers themselves should be engaged in developing professionally, the role of institutional support should never be diminished. The professional development scheme engaged with the stated purpose and elaboration of the detailed list of criteria. The principal also highlighted his view of teachers as experts and recognized the senior teachers' resistance to "implementing passively other people's ideas" (Day, 1999, 114).

The solutions to the above-stated problems were achieved through several means. In addition to ongoing internal monitoring, regular and familiar to the school, the principal invested in external monitoring by "significant credible outsider" (Day, 1999, 115). The presence of the external monitoring as a non-participant observer at the scheme events added to the regular interview with those involved. The activities included in the overall scheme of professional development classified as action research.

The study aims to pilot the questionnaire, and the interview questions based on the questionnaire results, to refine the interview focus and select a relevant sample for the broader research on university teachers' professional development.

## Methodology

The data collection tools were selected based on the contextual nature of the aspect of professional development. A small-scale survey based on TALIS questionnaire (OECD, 2013) was modified to address the needs of the study; the main changes were to address issues based on higher education context instead of the school. The questionnaire was not used as a separate data collection tool, being the basis for developing and refining interview questions instead. It was also used to mediate the interview questions.

The interview, as mentioned above, was based on the results of the small-scale survey. The questions were grouped according to the patterns developed during the literature review (organizational and opinion questions) and general background information about the participant. The interview was arranged through *Skype* and recorded with the help of *Callnote* software with the consent of the interviewee. The interview was manually transcribed.

All the questions related to the time span of 12 months up to the interview.

The following patterns were singled out to be the focal points of the data collection:

- organization of teachers' professional development activities, which focused on administrative and organizational issues (planning, participation, evaluation, dissemination);
- an opinion of teachers involved in professional development activities (their hopes and fear, expectations and perceived outcomes).

However, the nature of the collected data does not allow to analyse the aspects separately; the answered questions about organizational issues intertwine with the personal opinion, which adds to the validity of the study.

## Results and Discussion

The interviewee is a teacher of English with six years of working experience five out of which are at the target higher education institution, a private university in Tbilisi, Georgia. Relevant background information retrieved with the help of the survey (distributed several days before the interview) is presented in the following list:

- the interviewee reported no participation in collaborative activities (including mentorship, observation, coaching) over an extended period;
- the interviewee did not take part in any of the professional development activities with the involvement of external partners;
- none of the professional development activities were spread out over several weeks or months.

The participant mentioned the seminars/workshops and regular participation in the conferences, which served as a starting point for the interview discussions. The following information presents a mix of data retrieved with the help of the interview and preliminary questionnaire:

- the interviewee was involved in the workshops that covered the subject matter and methodology and participated in education conferences for one and two days respectively over the last 12 months;
- the workshops usually included the aspects of subject knowledge and understanding and the application of ICT tools in teaching;
- the workshops were organized in an interactive way allowing the participants to collaborate with a group of colleagues from the same subject area in some of the activities;
- several of the events created an opportunity for active learning methods (opposed to passive listening); though the activities mentioned above did not make room for cross-field collaboration and research;
- all the teacher professional development activities the participant has attended were organized at the targeted higher education institution and were free of charge for the internal participants; the events were held during regular working hours.

All the questions related to the time span of 12 months up to the interview.

The interviewee highlighted the necessity to systematically upgrade her knowledge and understanding of the subject area, as well as pedagogical competencies in the field. She claimed ownership over her progress in the mentioned area, saying that her individualistic approach adds to the professional development events regularly scheduled at the target higher education institution. In fact, these two fields are the most regularly covered aspects within professional development activities.

The interviewee expressed a high level of need to be involved in the following areas for future professional development:

- knowledge of the curriculum (being acquainted with the overall structure would help to state clearer formative and summative goals for her instruction);
- student evaluation and assessment practices;
- teaching students with special needs;
- teaching a multicultural or multilingual setting;
- teaching cross-curricular skills (such as problem-solving, learning-to-learn);
- new technologies in the workplace;
- student career guidance and counselling.

In addition to the content (not limited to the subject) knowledge, the participant expressed her willingness to be more involved in the processes dealing with university management and administration, which would clarify the goals and vision of the university and help to establish a clear and stable connection between these and day-to-day teaching practices.

## Conclusions

The following conclusions based on the data collection tool are organized into three major categories: costs of teachers' professional development, leadership, and distribution of roles, collaboration, and networking.

*Costs of teachers' professional development*

Lack of regularity of the professional development events is the leading and foremost obstacle on the road towards effectiveness and emergence of new practices. Though the interviewee agreed that the target institution provides enough time during the regular working hours to dedicate to professional development, there is a significant gap in the resources as well as support and opportunity to be involved in it regularly. Speaking about the barriers to the participation in the activities the interviewee singled out the lack of institutional support in the conflicting working schedule when often the events are scheduled with no regard to the classes. The interviewee also mentioned no incentives for participating in the activities; having it rest on exclusively internal motivation and willingness to upgrade the knowledge – "*I believe people do not see the necessity*". Neither lack of qualification or experience nor family responsibilities are considered to be an obstacle for the interviewee's professional development; she believes the same applies to her colleagues as it all depends on the "*dedication to the profession*".

Professional development outside the institution was addressed as "*too expensive, almost unaffordable*" concerning fees and time. The lack of the provision of relevant professional development from a trusted source (professional expertise) was one of the reasons to avoid it.

*Collaboration and networking*

The interviewee several times mentioned the lack of collaboration between the departments; she feels that the absence of "*external input*" considerably influences her practice. She believes that cross-field collaboration would involve "*more fun*" into the practice, which would be appreciated by the group of teachers as well as the students in the class. The methods used during the professional development activities at the institution were interactive and aimed to be collaborative; nevertheless, the participant admitted the participation in the training had a moderately positive impact on her practice.

The interviewee also noted the absence of teacher involvement in design and organization of teacher professional development; she mentioned she is willing to have an opportunity to influence the selection of topics and have the suggestions and ideas heard by the management teams.

The interviewee described the participation in the conferences as "*really fruitful*" as it was an opportunity to meet the external professionals as well as exchange knowledge and opinions across the pedagogical field. She recollected the practices from the previous years when she was invited to the training as an outsider – a teacher from school and mentioned these trainings were covering pedagogical aspects of language teaching; she agrees these meetings had a direct influence on her teaching at school.

*Contents of the professional development activities*

The vast majority of the professional development activities were dedicated to the training in the expert knowledge in the teaching domain, vastly ignoring the ethics and attitudes. The interviewee highlighted the areas of individualized approaches to student learning and student behavior as very important in day-to-day teaching activities. Besides, she has noted that she regularly updates her practices to match it with the values of the modern world, thus would love to see a platform where it could be discussed and trained on better implementation of these values into teaching practices.

The problems of the encouragement and involvement are the most widely discussed in the department of the participant. The goals of the professional development activities are not usually communicated publicly, thus limiting the possible number of attendants. While the results of the activities are widely spread through social media, the participants often miss important events due to easily approachable reasons - lack of communication and poorly organized schedules.

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# Importance of Dietary Habits for Military Personnel

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**Abstract:** Nutrition habits of cadets are basement for keeping health and physical preparedness stability, developing a military career. General obligation of each military person is to take care of his welfare and health, to follow to the hygiene standard and keep military readiness and physical fitness. Welfare includes also healthy, balanced and adapted to the physical load nutrition. According the legislation military person get daily financial support-compensation for daily food. There is individual responsibility to choose food that is suitable and available, that favour physical fitness and increase health status. The aim of our study is to indicate the nutrition habits of cadets of National defence academy of Latvia. We have provided a questionnaire about food consumption of cadet's groups in period from 2017 till 2018. The study data were processed by SPSS 22. Results reflect that cadets` general information level and understanding about importance of food consumption need to be improved. It is useful to organise the lectures course about the main principles of healthy nutrition adapted to physical load. The cadets need additional information about balanced diet. The recent research suggests that a significant percentage of cadets do not have adequate nutrition habits to physical activity level. We fixed problems (deficit of water consumption) before the sports activities. Balanced food consumption allows improving physical status and working capacities of cadets and correlating the body mass index (BMI) value to Standard level. The correctly organized nutrition plan helps to support physical fitness and activity of military personnel.

**Keywords**: dietary habits, military personnel, physical fitness, nutritional habits, university education.

## Introduction

Recent data has suggested that there is more interaction between diet and physical training results. The military training included as well physical endurance training as well military skills training. Macronutrients are the energy or protein building blocks and are topical for adaptation to situation with definite physical or mental load (Burke, 2010; Moore et al., 2009). We were interested in data about cadets` nutrition habits. The cadets are receiving financial support (compensation) for daily nourishment. They manage food and fluid intakes by themselves. It is very important that the cadets are correctly organizing their daily feeding plan.

The information about nutritional habits of Latvian inhabitants was collected by the health monitoring projects (Latvia Health Behavior…, 2014; Latvijas iedzivotaju veselibu…, 2017). The positive trend regarding Latvian inhabitants' sugar using was observed - it decreased to 20 % of respondents compared to 18.5 % of respondents in 2014. The data of Latvian inhabitant's questionnaire showed, that the vegetable consumption increased from 25.3 % (in 2014) till 27.1 % (in 2016). The data of monitoring showed the fat food consumption also diminished 22.7 % of respondents in 2016 (comparing to 19.6 % of respondents in 2014). The monitoring data showed the 42.8 % of respondents changed their nutritional habits due to their health problems in 2014, but in 2016 26.6 % of respondents had to change their dietary habits. The health monitoring reflected that the part of Latvian inhabitants didn`t pay attention to their dietary. The cadets` nutrition habits were essential to maintain and support physical fitness and working capacities, which are very important for general military readiness and preparedness. The cadets' daily physical activities and training plans directed to the increase of fitness and force capacities.

The education level and intelligence, knowledges about nutrition and its importance for keeping health and working capacity correlated to education level (Kullen et al., 2016; (Jezewska-Zychowicz, 2018).

The aim of study was to analyse the nutritional habits of military personnel – cadets, their understanding and knowledge level concerning the nutritional importance for support of physical working capacities.

## Methodology

We provided the questionnaire to cadets' groups of National defence academy of Latvia. The study included 143 respondents of both genders (130 male and 13 female). They had military service experience duration from one year to nine years. Questionnaire was adapted to study group and was forming on the grounds of Sports Nutrition Knowledge Questionnaire (Kummer, 2016) and Nutrition Knowledge Questionnaire (Clemo, 2014). Our questionnaire included 23 questions that allowed collecting information about nutrition habits, fluid intake knowledge concerning nourishment and fluid intake importance for keeping working capacity during hard physical load condition.

Riga Stradins University Etic committee accepted the study. Data was processed by using MS Office program Excel and statistic program SPSS 22.

**Results and Discussion**

The nutrition plays the key role in skeletal muscle adaptation response to physical exercise training that modulates muscle reconstruction. Dietary protein intake stimulates skeletal muscle protein synthesis, inhibits muscle proteins breakdown that lead' to a greater muscle adaptation to exercise (Cermak et al., 2012, Phillips, van Loon, 2011). The daily protein recommendation for protein intake for health adults is 0.8g/kg/day (Phillips, van Loon, 2011; Slater, Phillips, 2011). There is no exact window of time for protein consumption, the athletes should maintain protein balance throughout the day (Hartman et al., 2007; Moore et al., 2012; Tang et al., 2009) The essential part of physical performance is the individual and collective skills, weather conditions, surrounding characteristics, but nutritional effect is important also. The analyses of questionnaire data showed the nutritional habits of cadets - next officers and allowed to find out the respondents' knowledge level about importance of balanced nutrition and proper fluid intake for military performance.

The assessment of respondents' answers concerning meal times per day: 58,5 % of respondents had three till four meal times per day, but 17.5 % of respondents considered that for keeping physical endurance and fitness five till six meal times daily are necessary (Figure 1).

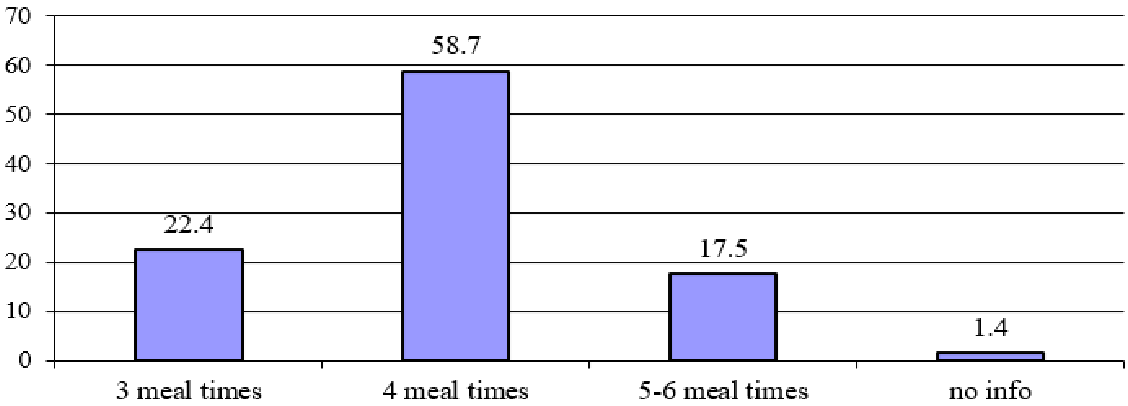


Figure 1. Distribution of respondents by meal times per day (%).

The regular food intake improves the physical training results; the most important meal time is the breakfast (Cermak et al., 2012).

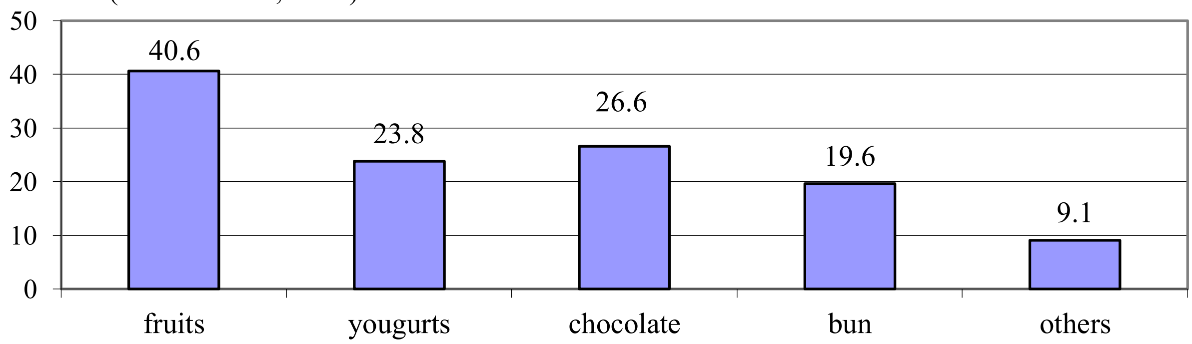


Figure 2. Distribution of respondents by various snack intakes (%).

The first meal time (breakfast) should contain about 30-40 % of calories rate from daily amount. Todays the breakfast's importance is decreased, and cadets preferred the lunch (about 79 %), which is the largest meal and delivers the largest calories intake for our respondents' groups. The cadets had the snacks between the main meals. The respondents choose various carbohydrates rich with minimal fibres, fat and protein food: fruit (40.6 %), yogurts (23.8 %), chocolates (26.6 %), bun (19.6 %) etc. (Figure 2).

The various products contain proteins: eggs (32 %) milk products (35.4 %), legume (6.1 %) meat and fish (58.5 %). The various studies inform about improvement in protein balance and protein synthesis rates in case of ingestion of whey proteins (Tipton et al., 2004), casein protein (Tipton et al., 2004), soy protein (Wilkinson et al., 2007), casein protein hydrolysate (Koopman et al., 2004; Koopman et al., 2006; Koopman et al., 2009), whole milk and /or fat-free milk (Eliot et al., 2006, Wilkinson et al., 2007). The milk products are well available to use in Latvian regions. The milk products are resources for proteins (a blend of whey and casein) and calcium. 58 % of cadet's use milk products daily, 22.4 % of respondents include milk products in diet three time per week, but 2.8 % do not use milk products at all (Figure 3).

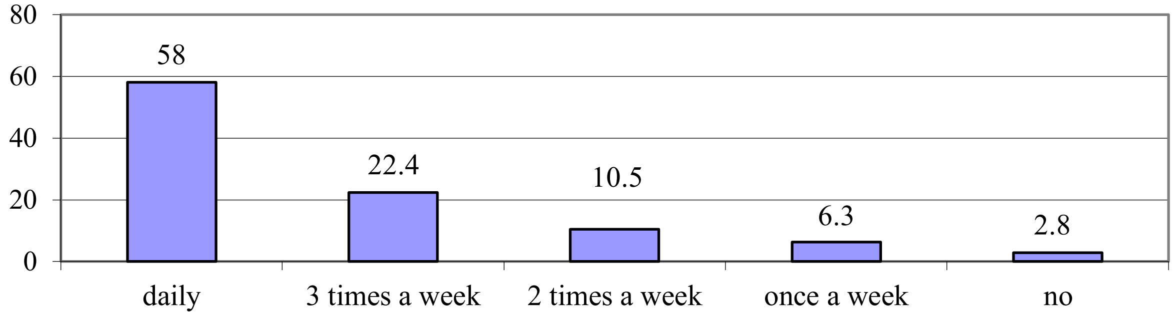


Figure 3. Distribution of respondents in groups by various milk products intakes (%).

The regular intake the recovery proteins can help to improve physical readiness and training results. Analysis of post exercise protein consumption during resistance training increased fat free mass (Cermak et al., 2012), cross-sectional area of muscle fibres (slow and fast twitch). According to our questionnaire results the meat was the main resource of proteins for cadets. 73.4 % of respondents included the meat in the diet daily (Figure 4). About 18.9 % of respondents included the meat into the meal three times per week. The respondents` choose different kind of meat. The 81.5 % of respondents preferred chicken, 23.8 % of respondents used pork and the 16.9 % of respondents had beef.

The primary protein role is to provide the building resources to create individual protein structures in the body. The consumption of complete proteins supports muscular tissue recovering processes. The physical exercise training causes the process of breaking down muscle structures and building new structures. The dietary protein resources should contain all of essential amino acids. The amino acid profile is important for choosing dietary proteins. Meat and fish are complete, containing all essential amino acids (Slater, Phillips, 2011).

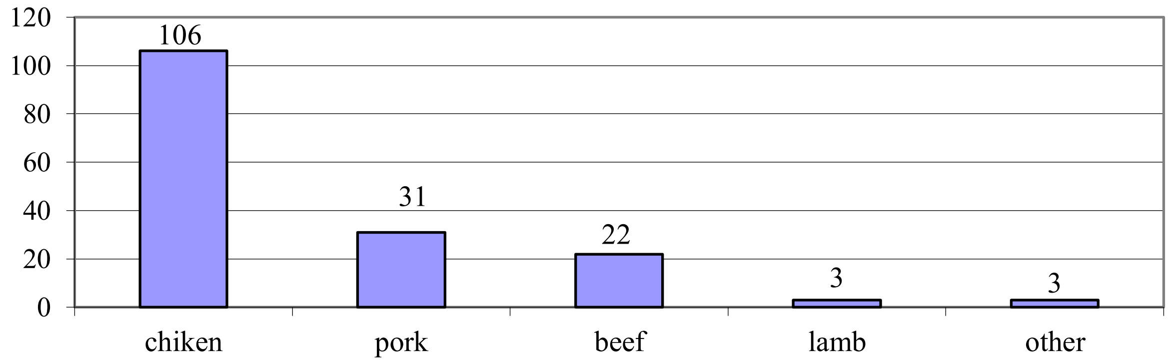


Figure 4. Distribution of respondents by various meat intakes (number of respondents).

The fish is a product that contains very important component omega-3 fat acids. The fish should be included in the dietary for everyone, especially for persons with physical load, but results of questionnaire of study group respondents indicated that about 50.4 % of them didn`t include fish in daily meal at all, 39.2 % of respondents uses the fish once per week and only some had fish food three times per week (Figure 5).

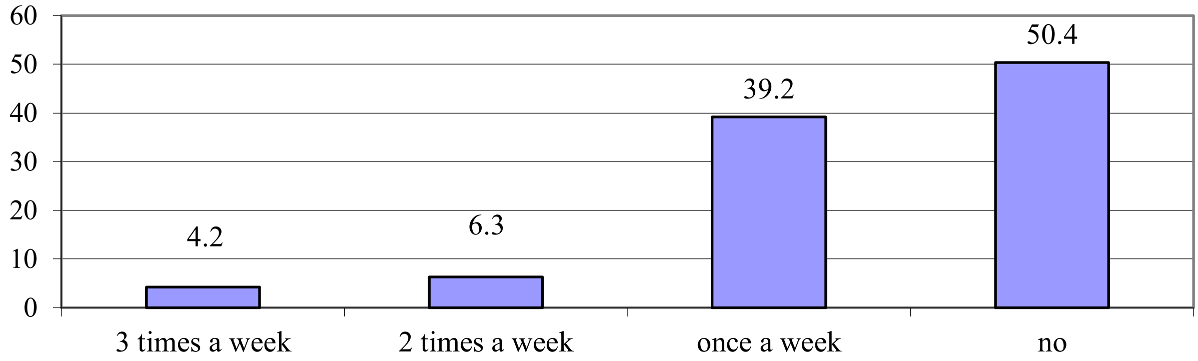


Figure 5. Distribution of respondents by fish products intakes (%).

Carbohydrates play fundamental role in energy providing for endurance physical performance, they are crucial also in post exercise period when the glycogen depleted, when muscular tissue characterised with process of breaking down muscle structures and building new structures (Burke et al., 2011). The person involved in endurance training focuses on carbohydrate ingestion that accelerates post-exercise recovery. Co-ingestion of small amounts of proteins can accelerate muscle glycogen repletion when less then optimum amounts of carbohydrate are ingested during first few hours of post exercise recovery (Beelen et al., 2011, 2012). It is important to combine carbohydrates intakes for energy demand and fluid for hydration.

Fruits and vegetables are an important part of a diet. They are an important source of fibres, vitamins, minerals and antioxidants. About 41.9 % of cadets daily add vegetables in diet. 32.2 % of respondents include vegetables in diet three times per week, and 18.2 % of respondents consume vegetables two times per week (Figure 6).

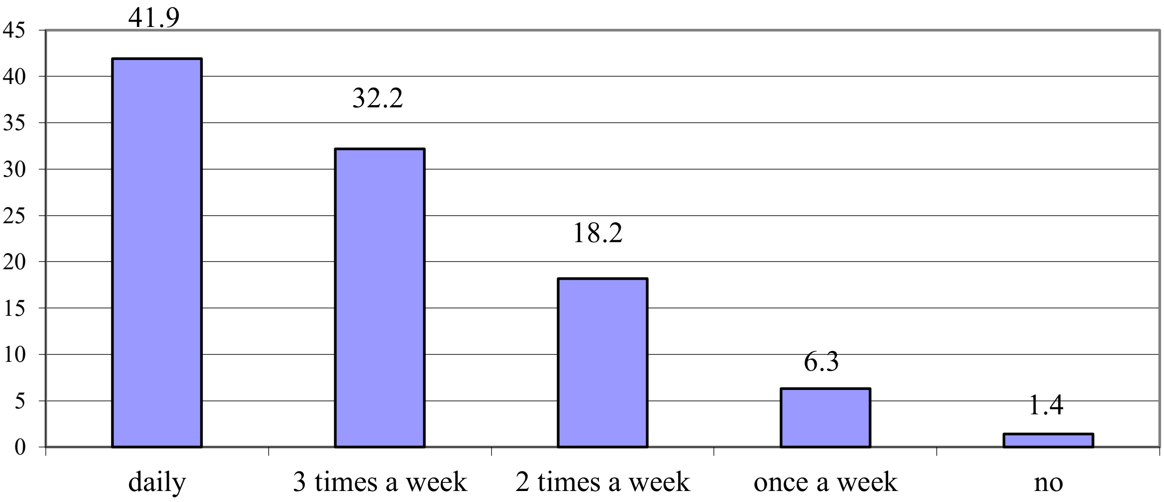


Figure 6. Distribution of respondents by vegetable products intakes (%).

In Latvian population's dietary habits, the potatoes are more popular than legumes. Three times per week potatoes consumed by 33.6 %, while legumes only 13.9 %. Vitamins and minerals are essential components of daily food, they play an important role in energy metabolism. Fruits are important and well-used products for vitamins and minerals. They were included in daily use for 30.8 % of respondents. Three times in a week the fruits were preferred by 32.2 % of cadets and 25.9 % of respondents used fruits twice a week (Figure 7).

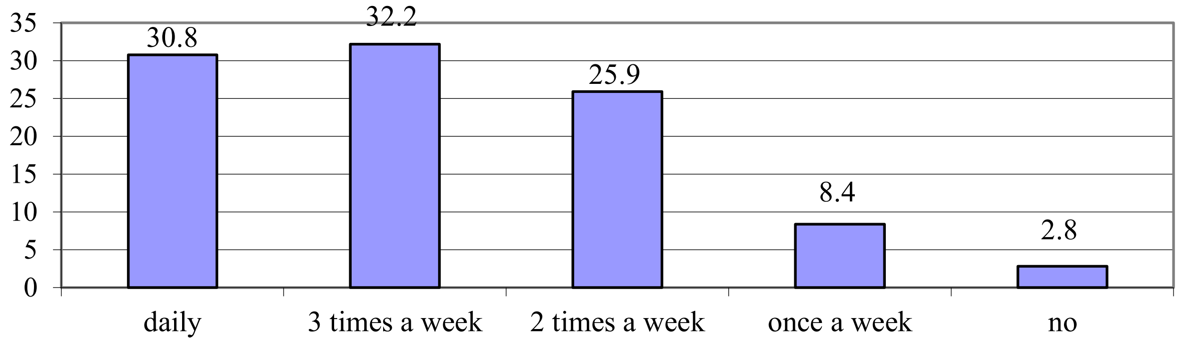


Figure 7. Distribution of respondents by fruit intakes (%).

We analysed fat reach product choose. 51.3 % of respondents preferred fat-rich meat, 42.3 % of respondents preferred soured cream and mayonnaise. In general, 83.6 % of the study group members favour predominating saturated fats (Figure 8).

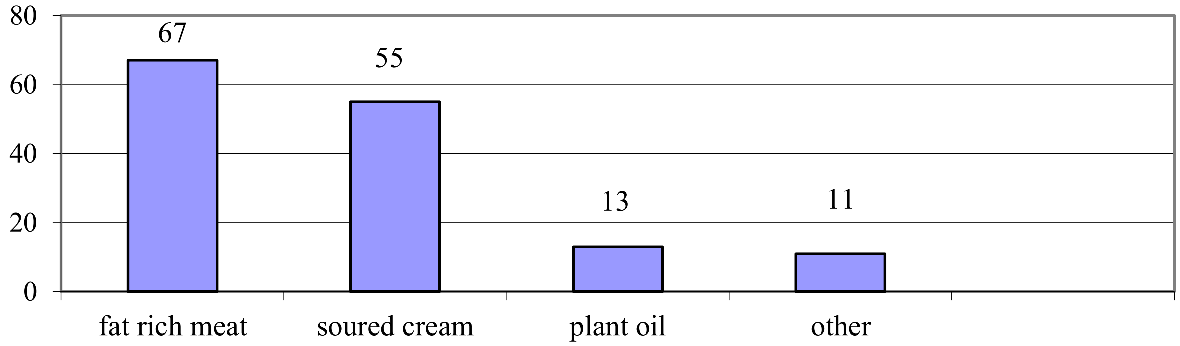


Figure 8. Distribution of respondents by various fat reach product intake (number of respondents).

## Conclusions

The cadets` dietary habits showed by using of wide variety of food what covered balanced energy needs. The eaten food included rich amount of proteins (meat) and fat. On a daily basis, cadets absorb all nutritional groups, putting a lot of emphasis on protein, receiving it through meat and dairy products, paying less attention to fish and legumes. It is based on the desire to maintain their physical capacity. The cadets` diet quality should be balance by adding fish products, vegetables, and fruits intakes. Vegetables and fruits provide all necessary amounts of vitamins and minerals. The cadets follow to three till four meals per day plan that provide all necessary energy. Between meals, snacks are included, and water is used to quench thirst but in one-third of the cases the consumed amount less than what is needed. The fluid intake should be improved by drinking fluid throughout the day (water, juices, and tea) and by body weight control after the physical exercises. In order to maintain cadets' physical working capacity and reduce the likelihood of health problems, cadets must be educated on the creation of a balanced diet and the right drinking regimen, as well as on the safety of the use of nutritional supplements, which matches with the desire and interest of cadets to expand their knowledge of adequate nutrition regimens. The cadets are interested to improve their diet by its balancing according physical activities load and maintaining a healthy weight.

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# Choice of a Value Identification Method in Career Counselling

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**Abstract**: The paper presents the results of research on the role of choice of a value identification method for career counselling. The research aim is to analyse the results of application of value identification methods in career counselling. To achieve the aim, the present research studied students of vocational education institutions and analysed the results of an exercise done by the students as well as analysed relevant theories. The study involved 111 students aged 17-30. The study identified that five most important values for the youth with regard to their career development were as follows: stability, satisfaction, security, freedom and money. The research findings contribute to an understanding of the role of application of value identification methods in career counselling and give insight into the most important values for the youth. Career specialists and personnel selection specialists could use the findings in their career counselling practices.

**Keywords**: values, value identification, career counselling, school education.

## Introduction

To build up individual skills matching labour market requirements and contribute to socio-economic development of the country, an important role is played by career counsellors working with the youth. The right choice of a career counselling method is important, as it results in the right choice of professions by young individuals and their professional success.

Nowadays*, career development* is characterised as a dynamic process that involves self-realisation, the social environment, interaction and change. *Career development* is affected by a number of factors that could be divided into two categories:

- *endogenous factors* related to an individual's personality and potential – skills, interests, values, abilities and needs;
- *exogenous factors* – the economic situation in the country, employment, the labour market, family status and the number of children in the family.

Career development levels of individuals are very different. Some individuals are satisfied with doing simple jobs, which require no high qualification, for a long period, whereas others wish to educate themselves and take increasingly higher and more responsible job positions. This means that the self-realisation needs of individuals are very diverse, very individual and change over the course of time. For this reason, the right choice of a method employed by a career counsellor in his/her career counselling is very important.

Career counsellors employ a particular value identification method suited for a particular situation and particular client categories and particular client problems. The right choice of a method and the interpretation of the counselling result could stimulate the client to make a decision based on his/her values; the counsellor could suggest alternative occupations, as well as shape an individual career growth plan, help the client to understand the world of employment, contribute to the choice of a right career path by the client, help the client to get better integrated into the social life and his/her professional life. Value identification methods help career counsellors to identify career counselling boundaries as well as act professionally, ethically and wisely in assessing any particular situation and identifying the particular kind of career guidance needed.

The choice of a method performing a value identification exercise gives the client an opportunity to identify and choose his/her key values, and the exercise helps the client to make choices, develops the client's mental ability and helps the client to aware and define as well as analyse life values.

The research aim is to analyse the results of application of value identification methods in career counselling.

**Methodology**

The results of a value identification exercise done by students of vocational education institutions were analysed to achieve the research aim. The authors of the research requested students aged 17-30 to do a value identification exercise during a career counselling class. The study on the young individuals was done from 1 September 2017 to 30 June 2018, involving 111 individuals. The study aimed to analyse the results of a value identification exercise.

The specific research tasks are as follows:

- to theoretically discuss value identification theories;
- to analyse the results of a value identification exercise.

Theory on value identification methods was employed to perform the research tasks and achieve the research aim. Statistical data were processed employing statistical analysis methods and descriptive statistics in MS Excel. The exercise analysis method was employed to analyse a value identification exercise. The study on students was done at the following vocational education institutions located in Zemgale region: Jelgava Crafts Secondary School, Zalenieki Commercial and Crafts Secondary School and Jelgava Technical School.

**Results and discussion**

**Value identification theories**

Values are a basis on which an individual build on his/her own personal existence acceptable to himself/herself. Values become distinctive based on social behaviour patterns and personal experience gained since childhood and change because of various events and experiences in the life.

A change in values or their priorities is most often observed during adolescence and early adulthood when the individual, for example, begins studies at university, leaves the parent's home, starts his/her own family and/or begins a professional career. Such social changes promote the formation of new values (Domino, Domino, 2006). Each period in the individual's life is unique, it has its own value in terms of acquiring new experience needed for preparing for the next stage in his/her life. For this reason, each life stage has to be lived to the fullest, acquiring new experience, enriching one's attitudes and values and getting more familiarised with oneself in various life situations.

L. Gottfredson (1981), however, believes that the structural formation of a personality is affected by gender, social background, intelligence as well as interests and values and their interaction with the personality's notion of employment.

In career counselling, values are analysed in conjunction with other factors determining the choice of a profession, such as interests, abilities and personal traits, the identification of which helps the client to make decisions (Jigau, 2007).

R.L. Schalock (Schalock et al., 2002) considered "life" to be referring to important aspects of human existence, e.g. family, health and work, and "quality" to be associated to human values e.g. health, satisfaction and happiness. M.L. Wehmeyer (2013) described quality of life or life satisfaction as a multidimensional construct which refers to the possibilities to meet the needs of people and to the opportunities to pursue improvements in life. Hence, the personal assessment of life satisfaction is based on participants' own unique values and criteria (Cohen-Scali, Rossier, Nota, 2018, 45).

German philosopher Eduard Spranger's theory defines six types of ideal individuals based on their ways of thinking, lifestyles and most important and general values. Each of the types focuses on certain basic values (Spranger, 1928):

1) theoretical – truth discovery and systematic thinking;
2) economic – usefulness and practicality, including the accumulation of wealth;
3) esthetical – beauty, the harmony of form and art;
4) social – relationships with other individuals;
5) political – desire for power and influence on others;
6) religious – unity and an understanding of the universe.

Measured on a scale of values, the mentioned basic values are different for every individual in terms of importance, yet one of them is dominant. The choice of a particular occupation or profession is associated with the individual’s system of values, as the individuals of the same profession usually share the same values and attitudes.

Occupations undergoing rapid change in the workplace, the apprenticeship model can slow adaptation or change in working methods, because of the prevalence of traditional values and norms being passed down. Traditional values and norms around teaching are increasingly in conflict with external forces such as new technology and the massification of higher education (Bates, 2016, 90). During the past century, shifting social contexts moved perspectives to new vantage points from which to derive different social practices, again including career counselling (Savickas, 2015). Career counselling plays an important role in raising young people's awareness of values in their career development.

After the individual’s values have been identified, the individual is likely to be less uncertain about the future and more engaged in developing the professional identity.

Career choice theories consider a profession to be productive and stable if it is:

- chosen by the client him/herself and the client is fond of it;
- selected from among many possible alternatives;
- consistent with the client’s abilities, interests and values;
- supported by individuals being important to the client.

Eli Ginzberg’s Professional Choice Theory suggests the following most important factors affecting the choice of a career: the living environment, educational attainment, individual values and personal traits (Ginzberg et al., 1951). The choice of a profession is affected by the quality of the choice in terms of career values.

Values are defined as motivational drivers and criteria, based on which goals are set. The criteria that are consistent with *values* are as follows (Gibson, Mitchell, 1981):

- *free choice* – from among alternatives, after each one has been analysed;
- *preservation, appreciation* – careful observance of one’s own values; the choice of the values causes satisfaction and a wish to publicly declare them;
- *actions* – to be integrated into the behavioural pattern, making choices several times throughout the lifetime.

Choosing certain values means making a choice of goals and behaviours that are preferred or are superior to the others. Values, interests and needs pertain to various motivational aspects. Compared with interests, values are more general, abstract and fundamental. Values are determined later than interests, during adolescence, while needs dominate persistently. Interests might take the form of choice of values insofar as particular situations or actions are a means of achieving a certain result.

An individual’s sense of values develops not only during learning but also when communicating with the family, friends and colleagues; besides, the mass media also shape it (Kramer, 2010). Value system determines the quality of the decisions, so the school creates a model of cooperation between teachers and parents that provide students a unified information space of knowledge. The school is responsible for the productive cooperation and partnership between the school and the family (Vanaga, Balode, 2016, 120).

M. Rokeach (1974) distinguishes a series of 18 “fundamental” values that refer to personal goals (e.g. “to live a peaceful life”) or social goals (e.g. equality, freedom) and 16 “useful” values that pertain to a set of behaviours making positive moral implications in demonstrating certain traits (ambition, honesty, responsibility).

J. Perron (1981) writes about five categories of values: *status* (a wish to be admired, an adequate job position, high income), *achievements* (a wish to do creative activities that allow self-expressing oneself), the *climate* (a wish for an organised and pleasant environment), *risk* (a wish for competition and unpredictable situations) and *freedom* (a wish to be independent).

D.E. Super created *The Inventory of Professional Values* comprised of 15 categories (Super, 1980; 1990; Jigau, 2007):

- *altruism* (possibility to benefit others);
- *aesthetical values* (take the form of activities allowing achieving aesthetical goals and contributing to making a better world we live in);

- *intellectual stimulation* (pertains to professions allowing for autonomous thinking and continuous learning);
- *professional achievements* (reflect the appreciation of the profession that gives satisfaction from a well-done job);
- *independence* (in professions allowing the individual to work according to an individual plan and at his/her own pace);
- *prestige* (in professions attaching importance to those that perform them and gain respect of the others);
- *leading others* (in professions allowing the possibility of planning and organising the work of others);
- *economic advantages* (reflect the orientation towards well-paid professions);
- *professional security* (in professions where the individual is sure to hold on to a job);
- *work atmosphere* (refers to satisfactory work conditions);
- *relationships with superiors* (work supervised by a fair boss with whom the individual gets along well);
- *relationships with colleagues* (activity offering the opportunity of good social relations with the colleagues);
- *lifestyle* (in professions where employees can organize their life the way they like);
- *variety* (activities with diverse operations);
- *creativity* (in professions that involve making new things or products.

As regards career counsellors, R.V. Peavy (2004) indicated the values they need to be able to advise others: wholeness, perfection, completeness, justice, vitality, richness, simplicity, beauty, goodness, uniqueness, openness, playfulness, truth, honesty, reality and self-sufficiency. Wisdom refers to an intelligent and ethical perspective, creativity and clear consciousness. The mentioned values could be excellent traits of a provider of advice.

**Value identification methods**

If an individual applies value identification tools in a proper way, there is a high probability to transpose conflicts or contradictions/disagreements into a positive decision and the life of an individual, from the social perspective, becomes satisfactory and constructive. D. Brown and L. Brooks developed a series of steps to be done to identify a client's values with the help of a counsellor (Brown, Brooks, 1991):

- informing the client about the role of values, motivation and satisfaction, related to the job, in making decisions;
- applying formal and informal value identification tools;
- making a list of the client's values;
- discussing disagreements caused by contradictory values;
- assessing the influence of values on the choice of a profession or changes in the client's life.

The list of values has to be analysed with regard to the client's interests, abilities and roles in the life. If any contradictions emerge, they have to be discussed with a counsellor to identify appropriate ways of harmonisation. For example, if the client seeks a job, the counsellor has to offer job alternatives that could be consistent with the client's values.

Value identification methods are employed both in individual and in group counselling. There are exercises that, if done individually or together with a counsellor, can determine the behaviour of the client. In individual counselling, the following aspects are of great importance:

- establishing and maintaining a relationship with the client;
- identifying and examining the consequences of a choice made;
- making decisions by the client;
- making the client aware of how it is important to be proactive regarding the decisions.

Value identification tools have great potential in group counselling. Value identification methods are employed to inform the client and develop his/her communicative and interpersonal relation skills. Exercises done by a group of clients contribute to their self-knowledge and shape a particular behaviour on the part of the clients. The methods allowing clients to compare, examine and find arguments in favour of their own values, interests and behaviours, despite the rules other individuals impose on them, are particularly effective. L.R. Gibson and M.H. Mitchell discovered similarities between the value identification process and counselling stages (Table 1).

Table 1

**Key similarities between the value identification process and counselling stages**

(Gibson, Mitchell, 1981)

| No | Value identification | Counselling |
|---|---|---|
| 1 | Getting familiarised with each other: mutual trust and an atmosphere of acceptance and open communication are created | Establishing a relationship: the sense of support is created in the client that helps to explain the client why he/she needs counselling |
| 2 | Creating a self-image | Identifying and examining the concerns of the client |
| 3 | Identifying the values of the client | Identifying and examining the various options available to the client |
| 4 | Individuals are assisted with choosing one of the alternatives and confirm their values after its consequences are assessed | Client makes a decision after all alternatives to the options have been analysed |
| 5 | Individuals are assisted with setting goals and activities aligned with their values | Implementing the decision: the goal is set, and the client begins acting |

After the values of the client have been identified and examined during counselling, the career counsellor reveals the kind of behaviour of the client and what things are important in the client's life. The responsibilities of the career counsellor with regard to value identification methods are as follows (Gibson, Mitchell, 1981):

- to understand one's own values and the way the values differ from those of colleagues and clients;
- to accept the fact that the client has the right to have different values;
- to abandon a moralising tone or tendency to engage in activities that might deter the client from examining and reflecting on his/her values;
- to avoid judging the client and create a positive and open atmosphere facilitating the use of value identification methods;
- to identify what impacts the counsellor's values could make on the client.

Based on the authors' experience in previous studies the main problems were associated with the lack of information, the existence of several alternatives, no awareness of students' interests, abilities and values as well as the influence of one's socio-economic conditions on making a career decision. The Guidance Model (Briska, Dislere, 2018, 349) and its methodology focus on self-guidance through all the problematic matters, allowing students to deal with the themes which present the biggest problems. After summarising the findings of several authors, it can be concluded that self-directed learning is a process where individuals ascertain their values, interests, abilities and talents, set their learning and career goals, choose and implement a learning strategy, plan their work and do reflection on their own initiative. A career counsellor is an assistant in the student's personality development and promotes the students' activity in identifying and enhancing their values.

**Analysis of the results of a value identification exercise**

The study on students was carried out from 1 September 2017 to 30 June 2018, giving an exercise to 111 students of vocational secondary schools during individual and group career counselling classes "Value Identification". A questionnaire was designed using the questionnaire forms available at *www.visidati.lv* in order that it was easy and convenient for the respondents to fill in their questionnaires. The data were processed employing the statistical grouping method and descriptive statistics in MS Excel (Paura, Arhipova, 2002). Employing the MS Excel descriptive statistics tool allowed identifying the statistical characteristics of the youth who participated in the study (Table 2).

Table 2

**Statistical characteristics of the youth who participated in the study**

| No | Statistical measures | Sample characteristics |
|---|---|---|
| 1 | Average | 23.41 |
| 2 | Mode | 19 |
| 3 | Median | 23 |
| 4 | Range | 13 |
| 5 | Minimum | 17 |
| 6 | Maximum | 30 |
| 7 | Number of respondents | 111 |

As shown in Table 2, the number of participants was 111 who took part in the study; the range of age was 13 years, the mode was equal to 19, the median was 23 and the average was 23.41. The breakdown of the respondents by gender was as follows: 50 % women, 50 % men.

The given exercise required the respondents to rank the values related to their professional lives by importance with 1 being the most important and 25 being the least important. The results are summarised in (Table 3).

Table 3

**Results of the value identification exercise**

| Value | Position | Value | Position |
|---|---|---|---|
| **Stability** | **1** | Creativity | 13 |
| **Satisfaction** | **2** | Recognition | 14 |
| **Security** | **3** | Independence | 15 |
| **Freedom** | **4** | Gratitude | 16 |
| **Money** | **5** | Self-realisation | 17 |
| Joy | 6 | Feeling of affiliation | 18 |
| Result | 7 | Remuneration | 19 |
| Achievements | 8 | Cooperation | 20 |
| Courage | 9 | Challenges | 21 |
| Help to others | 10 | Status | 22 |
| Support | 11 | Opportunity to influence | 23 |
| Proficiency | 12 | Power | 24 |

According to the study data, the top five values were as follows: stability, satisfaction, security, freedom and money.

Using value identification exercises in career counselling helps the youth to:

- get familiarised with and comprehend themselves with regard to what is important and what is not important;
- easily adapt to daily life requirements at school or in the family or a group;
- develop personal and professional projects;
- identify the reasons of professional dissatisfaction.

Career counsellors have an opportunity to identify the reasons of low self-motivation and role conflicts (e.g. between the profession and the family). During career counselling, the youth give answers and are spontaneously engaged in value identification exercises.

The task of a counsellor is to explain the clients that the exercise results show only a tendency, to outline the diagnostics results in a comprehensible way, but to interpret the results neutrally (Racene, 2017).

Value identification methods are particularly useful if working with:

- *teenagers* – career counsellors help them to make decisions and set realistic professional projects by analysing interaction among personal factors (values, efforts, interests, personal traits, competence, abilities) and environmental factors (family hopes, teacher opinions, cultural, economic and social aspects) (Jigau, 2007);
- *young individuals and adults* who seek employment or wish to learn a new profession that could be consistent with their values, personalities and interests. During career counselling, the professional values and interests of a client are discussed and assessed whether they are consistent with the client's life interests, abilities and roles.

## Conclusions

The choice of a particular occupation or profession is associated with the individual's system of values. After the individual's values have been identified, the individual is likely to be less uncertain about the future and more engaged in developing the professional identity.

The right choice of a method and the interpretation of the counselling result could stimulate the student to make a decision based on his/her values; the counsellor could suggest alternative occupations, as well as shape an individual career growth plan, help the client to understand the world of employment, contribute to the choice of a right career path by the client, could suggest self-directed guidance model for promoting career decision-making, organizes the productive cooperation and partnership between the school and the family, help the student to get better integrated into the social life and his/her professional life.

Value identification methods help career counsellors to identify career counselling boundaries as well as act professionally, ethically and wisely in assessing any particular situation and identifying the particular kind of career guidance needed.

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# Computer Based Tests for the Courses of Informatics and Statistics of the Health Care Specialties

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**Abstract**: For informatics and statistics courses of the higher schools have a significant impact on the health care taking specialist's career. The first significant point of career is the defense of the diploma thesis. The aim of the study is to find out what affects the total assessment score of the computer-based tests. There are observed 151 health care student group from Latvian higher schools. The linear regression was used. The total score of the computer-based tests of informatics and statistics are not dependent from kind of test. By increasing the number of generated data sets during the study process, group average assessments of higher school informatics and statistics courses become better and closer to the optimum. According to authors' researches optimal average assessment is 7.6. By using the mathematical model, it is possible to predict precisely the group assessment of higher school informatics and statistics courses. These results are statistically significant.

**Keywords**: computer-based tests, informatics, statistics, university education.

## Introduction

The objective of the higher education establishments is to prepare highly qualified specialists, including specialists of health care. One of the criteria of being well prepared health care specialist is knowledge and skills of informatics and statistics. In the world, many study aids have been worked out, and students have lots of opportunities to learn various aspects of informatics and statistics.

Information technology has made information superficially much easier to access and use. N. Vronska's research presents a more effective way of thinking about how to improve student learning in both traditional and distance learning environments. She emphasises the information competencies as a group of skills to identify an information need, as well as retrieving, evaluating, using and reconstructing the knowledge contents of the retrieved information resources (Vronska, 2014).

Health care students can master computer science and statistics:

- at lectures and practical classes;
- at consultations;
- studying appropriate literature;
- studying the classification schemas of data processing situations;
- reading scientific publications associated with specialty.

The authors see and offer more opportunities how to facilitate the learning process and improve the students' knowledge and skills of computer science and statistics. We should bear in mind that informatics and statistics courses of the higher schools have a significant impact on the care taking specialist's career, and first of all on the defense of the diploma thesis.

The problem: Assessments of the health care students' knowledge and skills of informatics and statistics courses at higher schools are high (median (Me) is 8) (Rasnacs, Vitins, 2018). However, there is a chance to optimize the students' assessments.

The aim of the study is to find out what affects the total assessment score of the computing tests.

## Methodology

At modern higher schools, computer-based tests are widely used to check and assess the students' knowledge of various study courses. Final assessments of courses sometimes are marked as the total score of the computing tests.

Today, there is a wide variety of options of using tests. Multiple choice tests are only ones of the ways to test. With the help of tests, even essays, which are assessed manually, can be summarized. Research work with obtaining data and their processing are quite typical with informatics and statistics courses at higher schools. In order to check the results of the student's work, the lecturer can use computer-based tests to compare with the correct answer.

The authors were interested in the question: what factors affect the total assessment score of computer-based tests? Especially those factors which can be affected by the authors. Every lecturer, during the course of time, develops his/her study course and also the computerized tests if they are used at all. One of the factors, according to the authors, worth to be studied is the time factor. The second important factor is generated data sets associated with specialty, whether they are used and their volume during the study process. One more investigation fact should be taken into account that the data sets are given to the group of students not to individual students.

Hypothesis of the research: The more generated data sets associated with the specialty are used during the teaching process, the higher are the students' assessments of computing tests. That means, better knowledge and skills of informatics and statistics, and better prepared the new specialist.

Research objectives:

1. Work out an information system of computer-based knowledge tests with the orientation of higher education informatics and statistics courses.
2. During the course of time, to investigate the total assessments score of the higher education informatics and statistics courses depending on the used number of the generated data sets associated with specialty.

There are observed 151 health care student group from Latvian higher schools. The linear regression was used.

**Results and Discussion**

A computer-based test system was worked out and approbated for the higher school informatics and statistics courses to assess the knowledge and skills (Rasnacs, Vitins, 2012). The system is intended for tasks that need MS Excel files, and several correct answers are possible. Alongside with the authors developed system, Moodle (Moodle, 2019) and other testing systems popular in the world were used.

Input data of the information system of the lecturer's profile:

- the number of questions from which to make one random choice for the answer;
- tests tasks;
- multiple choice options;
- number of scores for multiple choice options;
- MS Excel files.

Input data of the information system of the student's profile – the chosen answers of the student. Output data of the student's profile – answers of the test tasks, their analysis within the test setting or recommendations within the setting of studies. Whereas in the output data of the lecturer's profile, all the input data and their analysis by all the students are seen.

During the course of time, the assessments of computer-based tests have not changed of the students' individual data (M=7.4, linear regression, t-test $p=0.820$). Even assessments of the students' groups data (151 groups) also have not changed during the course of time (linear regression, t-test $p=0.265$).

Courses of informatics and statistics are special, and their effect on the future of the new specialist has a far-reaching consequence. Assessments of these courses affect significantly the diploma thesis defense results and career in the labor market (Rasnacs, Vitins, 2018).

In order to develop additional recommendations for the use of computer-based tests of informatics and statistics courses, the authors participated in writing the scientific articles of health care.

To elaborate computer-based tests, it is important to generate a great number of tasks. Sometimes in the publications of health care are given means and standard deviation. But students must be able to work with data that are not normally distributed.

The authors generalized the models (Rasnacs, Vitins, 2012), demanding that the statistical parameters were similar as much as possible to those presented in the scientific publications. The aim of the data generation is to obtain the individual data values and answers of tasks – statistical parameters. At the beginning, the authors asked for one parameter – median, and to get the coefficient of determination to the target parameters as close as possible (Rasnacs, Vitins, 2012). During a period of time, the number of parameters increased – the authors additionally asked for quartiles, mean, standard deviation, p values of various statistical tests to reach the definite target values. Statistical parameters can be very diverse. They can be medians, modes, interquartile ranges, p value of different statistical tests.

During the study process, students can be given generated data sets associated with specialty according to the statistical parameters mentioned in the scientific publications. The data sets can contain a different number of data processing situations depending on the course content and the given tasks (Rasnacs, Vitins, 2012). The authors have generated data about:

- psoriasis (Hartmane et al., 2018);
- influence of noise in ambulance vehicles on emergency service (Janssen, Dundurs, 2018);
- elective colonoscopy (Mickevica, Margaliks, Mamaja, 2018);
- fat mass index and fat-free mass index (Kalnina et al., 2018);
- septic patients (Bridina, Gintere, Krumina, 2017);
- neurosurgical spine operations (Murniece et al., 2017);
- leukaemia (Paule, Nikulsins, Gravele, 2017);
- childhood intussusception (Soldatenkova et al., 2017);
- undergoing hand surgery (Margaliks et al., 2017).

To prove the set hypothesis, the authors developed a following mathematical model by surveying 2213 health care students of 151 groups within 10 years from 2008 to 2017 (Figure 1). For three health care student groups, predictions were made concerning the average grade per group (in total 37 students) of high school informatics and statistics courses in 2018/2019 study year.

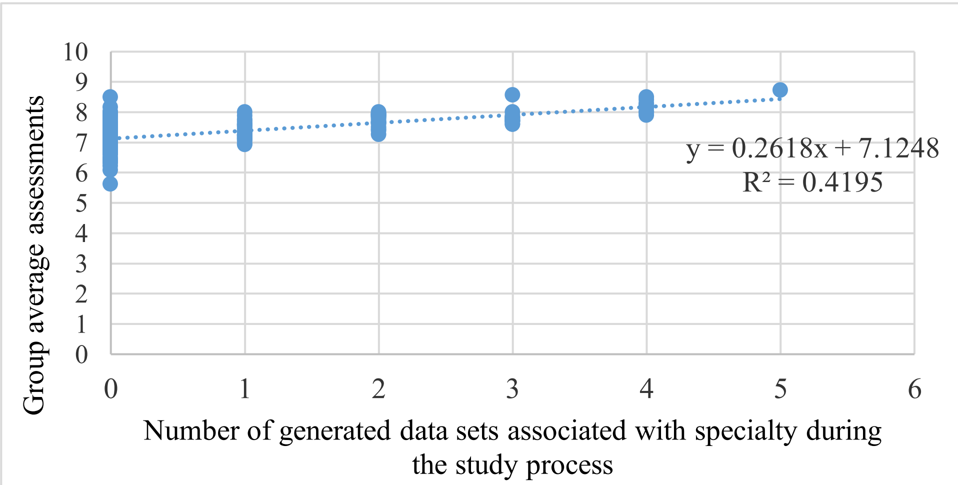


Figure 1. Linear regression of the group average assessments of higher school informatics and statistics courses depending on the number of generated data sets during the study process.

x – number of generated data sets associated with specialty during the study process, y – group average assessments of higher school informatics and statistics courses. The result shows that y is dependent on x (linear regression, t-test $p<0.001$).

The model was approbated for three student groups. Two student groups were given five data sets associated with specialty. In accordance with the model, the group average assessment was $0.2618 \cdot 5+7.1248=8.4$. The average grades of those student groups were 8.5 and 8.6, the relative error was 1 % and 2 %, respectively. The third student group was given three data sets. In accordance with the model, the group average assessment was $0.2618 \cdot 3+7.1248=7.9$. The average grade of that student group was 8.5 and the relative error was 7 %. Different parameters and assessment models can be used for students' knowledge and skills assessment with computer-based tests which are included in the test maker programs (Fuentes et al., 2014; Fagbola, Adigun, Oke, 2013). For example, the number of true answers, the number of false answers, test execution time etc. When assessing, the authors recommend to use the students' achievements and historical experience of the corresponding assessments and linear approximation.

The authors have surveyed the students' assessments of Latvian higher school informatics and statistics courses up to 2017 (Rasnacs, Vitins, 2018). The students' average assessment of informatics and statistics courses was 7.6. The authors also considered it important that the assessments of successful students were within the range from 5 to 10 scores. So, they accepted that the average assessment 7.6 is the optimal. The group average value was calculated for the differences of absolute value of the optimal assessment. For example, if the group average assessment is 7.8, then |7.8–7.6|=0.2. Whereas, if the group average assessment is 7.3, then |7.3–7.6|=0.3.

The authors were interested in the question – whether the mentioned absolute values are dependent on the number of generated data sets during the study process. By increasing the number of generated data sets during the study process, absolute values of deviations of the group average assessment decreases from the optimal 7.6 (linear regression, t-test $p=0.046$) (Figure 2). Coefficient of determination $R^2$ is close to 0, therefore prognoses cannot be made according to the equation (Figure 2).

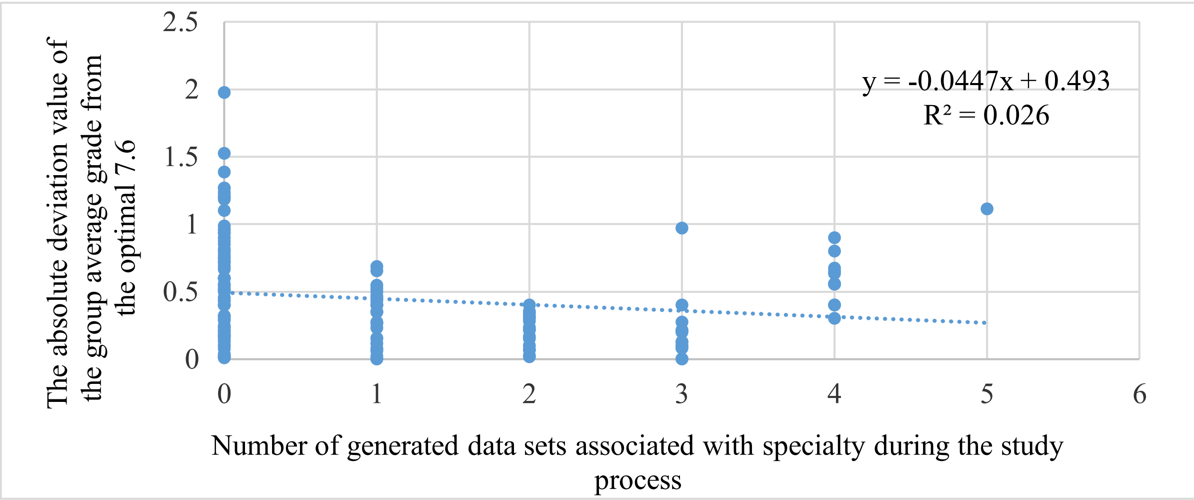


Figure 2. Linear regression of the absolute deviation value of the group average grade from the optimal 7.6 depending on the number of generated data sets during the study process.

**Conclusions**

Different computer-based tests are given to the students involved in the research. The students' results of the computer-based tests do not depend on the test structure, and they do not change during the course of time. The authors' hypothesis is proved. The more generated data sets associated with specialty are used during the study process and test, the higher are assessments of higher school informatics and statistics courses.

By using the mathematical model, it is possible to predict precisely the group assessment of higher school informatics and statistics courses.

By increasing the number of generated data sets during the study process, group average assessments of higher school informatics and statistics courses become closer to the optimum.

The authors recommend:

- to give generated data files for tests;
- to use the mathematical model for the data generation which immediately generates the data values corresponding to those given in the scientific publications.

In the test tasks the following steps are recommended:

- to substitute the missing symbols for the data, select queries and program codes (Ram Kedem, 2019);
- to calculate several statistics parameters which the student considers as correct;
- to give an analysis of the statements about the interpretation of the results;
- to use the students' historical experience of achievements for the assessment of test tasks.

**Acknowledgements**

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# Career Education as a Set of Planned Actions Integrated in the Study Process

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**Abstract:** The modern world is becoming more and more complex; everyday there appears and disappears a number of different professions, the employability possibilities change and the role of career education increases because it influences the person's ability to manage successfully the personal life, to learn continuously, to acquire new skills that are necessary in the personal life and professional development. Career development at present is considered a lifelong process not a single concrete episode of choosing the career because the person has to develop creativity and critical thinking, understanding of values and culture, humanism and citizenship, decision-making and problem- solving skills, entrepreneurship and communication skills along with the knowledge, skills needed in the profession and the professional competencies. The development of career management skills becomes more significant. The aim of the study is to explore the development of career management skills in the study process as the basis of career education which is implemented as a set of integrated actions. The study employs the analysis of pedagogical, psychological and career management theories and the results of the empirical research. Empirical research data have been obtained from surveying students and graduates about factors promoting the development of podologists' career management skills and the actions integrated in the study process at the University of Latvia P. Stradins Medical College. The research findings prove that career education is a set of planned actions, which is closely connected with the development of students' professional skills and the formation of sustainable awareness, which is integrated in the study process.

**Keywords:** career education, career management skills, the study process of podologists, university education.

## Introduction

The aim of nowadays education is to realize the link between education and the labour market, especially emphasizing the integrated learning strategy when improving the study process and diversifying the programmes (Cendon, 2018) are activated (Talbot, 2018; Okolie, Yasin, 2017). Thus, career education is integrated also in higher education and new forms for combining theory and practice are sought, paying attention to the development of career management skills that are necessary in personal life and lifelong professional development.

The Education Law of the Republic of Latvia states that career education is *measures integrated in the education process in order to ensure the acquisition and development of career management skills of educates, which include being aware of one's interests, abilities and opportunities for selecting the direction of further education and professional career"* (Education Law, 2014).

In Latvia, the guidelines on the support system of career development (ELGPN, 2010) underlines that it is possible to develop and promote the career management skills with the help of the support system of career development which is structured by three elements – information for the support of career development, career education and career counselling.

The European guidelines on education (CEDEFOP, 2009; OECD, 2014) emphasize that the acquisition of career management skills has to be integrated effectively in the */individual's/* education process and a link should be ensured between knowledge and those skills that are necessary for work and life actions in general, therefore it is important to improve the study process moving from the acquisition of professional skills to the formation of the individual's professional development as well as to improve the programme in accordance with the transformations of the education paradigm, the needs of the society and orientation to the development of the student's personality paying more attention to the perfection of skills and emphasizing the competences, which are required in the labour market and which need to be acquired during the tertiary studies (European Commission…, 2014).

The present study analyses career education as a set of planned actions integrated in the study process, which ensures the acquisition and development of podologists' career management skills. It is important to find out what set of integrated actions that promotes the acquisition of knowledge and skills, which are needed in further career development, including the acquisition of career management skills, in the frame of specialized programmes or programmes integrated in the study process considering the education standards and pedagogical traditions are needed.

Skills are formed in general; they do not need special courses (OECD, 2014), colleges can improve considerably the individual's readiness to learn in his life action changing the approach of teaching/learning aims to the competence and practice-based learning approach, using such methods and strategies /didactic tools/ in the study process that raise the student's self-esteem, facilitate the skill to analyse the personal life experience, to apply it in the acquisition of new knowledge and in development (Jackson, Willis, 2014). Researchers of human pedagogy (Barrett, 2010; Dauber, 2009; Heim, 1998) maintain that the outcome of the study process is the intellectual development of the personality (individual). The basic preconditions of the personality growth and development is active learning that provides a possibility to construct new knowledge according to each individual's previous experience (Stevenson, 2008; Wells, 2001), adjusting it to personal needs and the formation of new skills.

Actually, a curriculum is the planning of the teaching/learning process and the content, the aims of the curricula, in their turn, are closely connected with the societal values. The aim of the study programme "Podology" implemented at the University of Latvia P. Stradins Medical College is to prepare highly qualified, progressively educated, competent and competitive specialists in podology (Ivanova, Saulite, Andersone, 2014; Andersone, 2007).

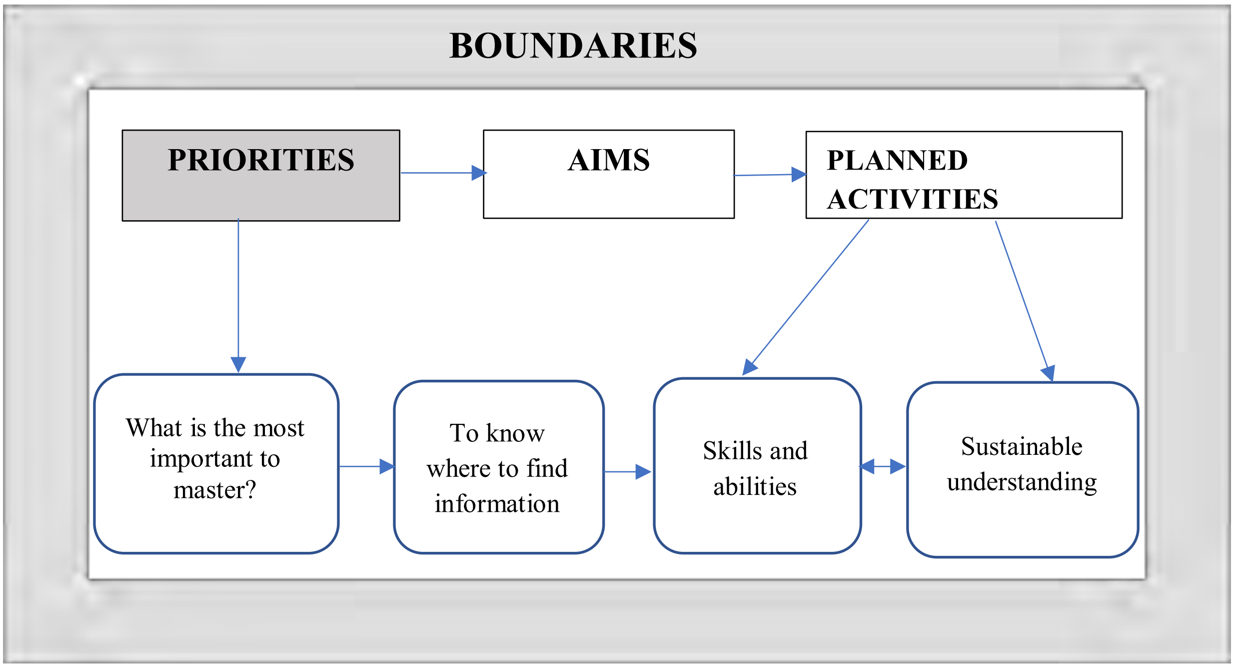


Figure 1. Priorities of the planned activities integrated in the study process in the development of career management skills.

The analysis of pedagogy theories and theoretical study of career education shows that the understanding of teaching/learning develops and changes along with the time. When the social economic conditions change, the approaches and methods in education, including medical education, change, too. Both the academic staff and students develop their awareness about effective learning skills, personalized learning, sustainable knowledge, which one should not only acquire but also be able to apply in life. A student-centred approach is still topical in the practice of tertiary study process; it develops along with the time and is substantiated in pedagogy theory (Huitt, 2011; Fabry, 2012). The courses acquired during the study process serve as a means for developing both students' professional and general skills as well as career management skills, forming the preconditions that activate each individual's personal constructive potential (*everything can never be taught!).* Thus, such teaching/learning methods, which promote independent, creative actions, e.g., solving of problem situations, group work, research, etc., can be integrated successfully in the study process (Anspoka, Kazaka, 2017). Emphasis should be put also on active learning process in which a student constructs the knowledge corresponding to his experience, adjusting it to personal needs and the formation of new skills using the possibilities offered by innovative technologies (Saulite, Koha, 2017). Organizing the study process directed to the development of career management skills, it is important to set the boundaries and to put forward the priorities of the study process (Figure 1).

The aim of the study is to explore the development of career management skills in the study process as the basis of career education which is implemented as a set of integrated actions.

## Methodology

The study employs the analysis of pedagogical, psychological and career management theories and the results of the empirical research. To obtain the quantitative data of the empirical study, a sample of randomly chosen research participants was formed: 50 current students and 50 graduates from the study programme "Podology" implemented at the University of Latvia P. Stradins Medical College.

The questionnaire included five closed-ended questions with a list of possible answers and a possibility to assess the importance of career management skills, individual skills, skills necessary in the development of podologists' career, conditions promoting their development, applied teaching/learning methods and factors defining the development of the career management skills in the study process on the 4-point scale where ***4** –especially significant, **3**- significant, **2**-of little significance and **1**-not significant*. Each question ends with the possibility to express freely one's opinion on receiving useful information, attitude and point-of-view about career education as a set of planned activities integrated in the study process which ensure the acquisition and development of career management skills of podologists.

Data were processed using IBM SPSS Statistics Version 22 programme; descriptive statistics and graphic methods, conclusive statistics methods (data validity testing (*Cronbach's alpha*), central tendency indicators - the Mean, variation indicators - standard deviation and pair correlation analysis applying *Spearman's* test) were used in the data analysis.

## Results and Discussion

Podologists' opinion on factors promoting the development of career management skills and integrated activities in the study process was explored in the frame of the empirical study. Cronbach's alfa ratio in the graduates' group ($\alpha$= 0.49) indicated that the data of this group had weak suitability while Cronbach's alfa ratio in the students' group ($\alpha$= 0.67) testified about average suitability of data for the analysis. Thus, the obtained findings about factors promoting the development of podologists' career management skills and integrated activities in the study process were analysed only in students' group and are reflected in Figure 2.

Analysing the assessment of factors promoting the development of podologists' career management skills and integrated activities in the study process in students' group it is obvious that students value the highest as the factor promoting the career management skills - the personal maturity (mean 3.52 points, standard deviation 0.54), the content of the study programme in general (mean 3.62 points, standard deviation 0.53) and qualification practice (mean 3.62 points, standard deviation 0.64) as an integrated activity in the study process. Students have given a comparatively unanimous assessment to the college teacher's personal example (mean 3.52 points, standard deviation 0.54) as the factor promoting the development of career management skills in the study process. Students' assessment, on the whole, coincides with D. Super's career development theory in which the key concept is *career maturity, vocational maturity;* it is explained as successful and harmonious career development all through one's life. Other theoreticians on career building (Super, 1963, Chen, 2015, Amundson, 2005) basing on their research also point to changes to which people are subjected in the course of reaching their maturity and are based on the internal need to improve mentally/intellectually as one of the intrinsic individual factors as well as the necessity to acquire and continually supplement one's knowledge and skills caused by external factors, e.g.. the study process and the work environment (qualification practice).

Students have given a relatively ambiguous assessment (mean 3.12 points, standard deviation 0.75) to such support activities of career development as career days, meetings with potential employers, events organized by professional associations in the college, etc. that take place parallel to the study process thus acknowledging that career education is a set of actions that need to be integrated in the study process.

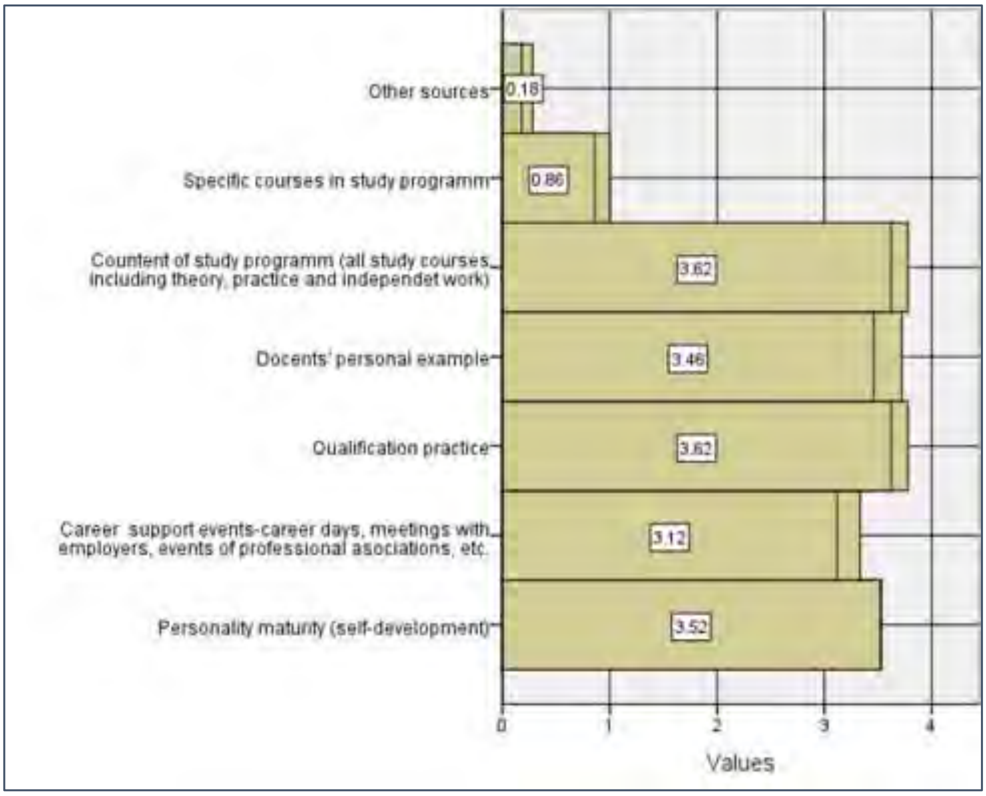


Figure 2. Assessment of factors promoting the development of podologists' career management skills and integrated activities in the study process in students' group.

According to ideas drawn from the theoretical research, the formation of career management skills is closely connected with sustainable knowledge which the person should learn and then be able to apply in practice because the podologists' professional education is not only getting ready for the professional performance but also serves as the basis for lifelong and life-broad learning process. The most important teaching/learning methods that have promoted the development of career management skills according to the graduates' opinion are practical classes (mean 3.88 points, standard deviation 0.33) and the solving of non-standard situations (mean 3.72 points, standard deviation 0.50). Students, in their turn, acknowledge the study practice (mean 3.92 points, standard deviation 0.48) and practical classes (mean 3.76 points, standard deviation 0.34) as the most important. The obtained results (see Figure 3) allow concluding that according to research participants' understanding the career management skills are mainly connected with the professional work and development, and the possibility to get closer to the work environment already during the study process when doing the study practice and participating in practical classes and solving different nonstandard clinical cases that create the sense of security and conviction to attain the immediate aims of learning – to obtain education and work.

Both graduates (mean 3.56 points) and students (mean 3.64 points) mark the analysis of situations (cases) as an important teaching/learning method that promotes the development of career management skills, which according to the pedagogical aspects of the development of career management skills and the specifics of the podologists' study process, the experience-based learning approach, help both to reach the aims of learning and to improve the career management skills.

The results of pair correlation analysis using the Spearman's test applied to teaching/learning methods that promote the development of podologists' career management skills as a set of activities integrated in the study process confirm a statistically significant link ($r_s=0.57$, $p<0.001$) between the analysis of situations and solving of non-standard situations. The results of the analysis concerning the teaching/learning methods that promote the development of podologists' career management skills need to be taken into consideration in the improvement of podologists' study process in order to ensure the integration of career education in the study process along with the aim and content of the study programme supplementing it with such teaching/learning methods and activities that would form the perspective of sustainable development in the acquisition of podologists' career management skills.

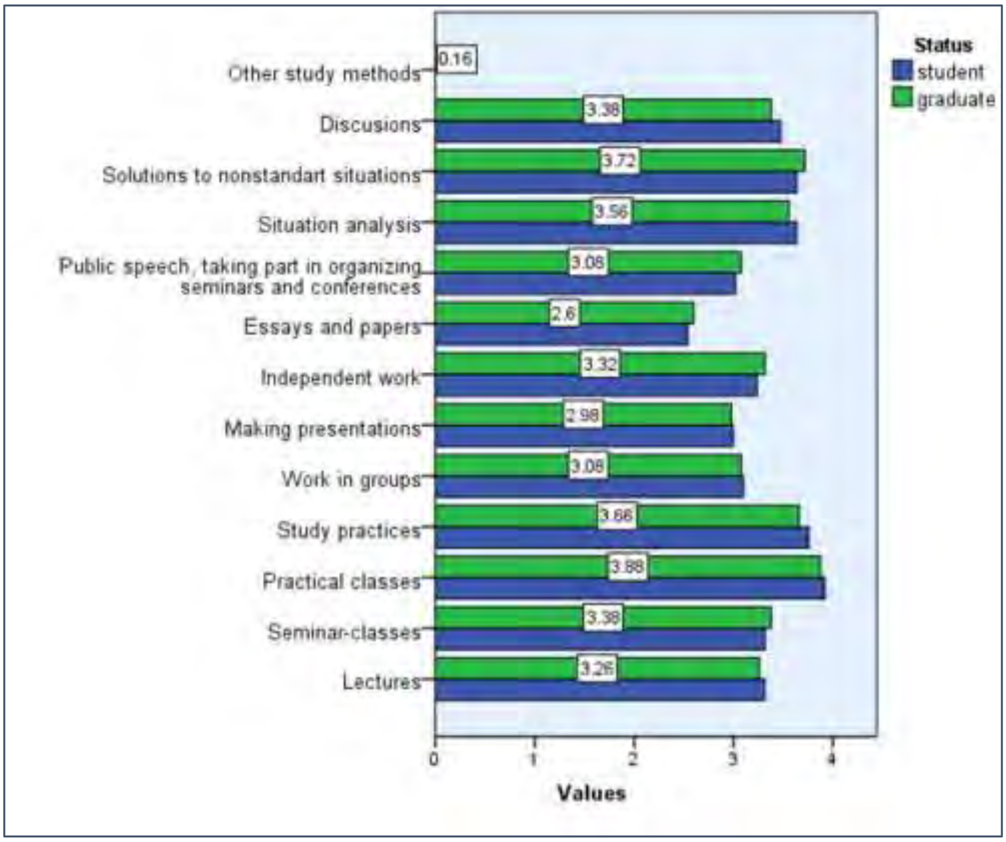


Figure 3. Teaching/Learning methods promoting the development of podologists' career management skills.

## Conclusions

1. The acquisition and development of podologists' career management skills in career education in the study process is promoted by the content of the study programme ensured by practical classes, study practices and situation tasks that are purposefully organized and integrated in the study process.
2. A set of activities purposefully integrated in the study process, directed towards the development of career management skills, give an opportunity to approach the work environment already during the study process both doing the study practice and participating in practical classes and solving different non-standard clinical cases that create the sense of security and conviction in newly-qualified podologists' both to attain the immediate aims of learning – to obtain education and work, and to improve the skills of learning in the life action.
3. The formation of podologists' career management skills are determined by the individual self-development factor – the interaction between the personality's maturity and the study process-that helps in attaining the aims of professional development, self-development, new challenges and education.
4. The integration of career education in the study process ensured by the student experience-based learning approach helps to reach the aims of learning and to improve the career management skills, forming a long-term development perspective.

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# Problems that Pedagogical Staff Face when Acquiring Qualifications

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**Abstract:** A quality education that responds flexibly to changes in the educational needs of pupils and students at all levels of education, as well as to the demands of future employers on the labour market, must become Czech Republic's priority. It plays an important role in tackling unemployment, as well as in the economic development and the increase in competitiveness of our country. The paper deals with problems in pedagogical staff training and education. The aim is to propose suitable measures leading to the elimination of current problems in training and education of teacher candidates at the Institute of Education and Communication, Czech University of Life Sciences Prague. The main method used is a data analysis based on a survey among students enrolled in the study programme "Pedagogy for Teachers in Vocational Subjects". The analytical outcomes indicate that high time requirements and low employers´ support are the main problems that teaching staff face. It indicates there will be necessary to focus on changing the approach of teaching staff employers who require enhancing teaching staff education, however they are not willing to offer a desirable support.

**Keywords:** education, lifelong learning, development of pedagogical staff, motivation and obstacles to study.

## Introduction

Teacher education is a responsible process that can be viewed from several perspectives. On the one hand, it is possible to mention the teacher's ability to communicate, to deliver the curriculum right, the ability to self-reflection; on the other hand, teacher education is also linked to the legislative requirements on the profession (Petty, 2014). The quality of teaching force is often perceived as a major factor in nation´s attempts to improve its overall educational performance (Akiba, Wiseman, 2013). The importance of teacher policy and enhancing teacher´s effectiveness has been also analysed by OECD, accenting the need of high-quality teaching (OECD, 2005). Similarly, the noticeable trend to extend pedagogical studies and raise the standards of teacher training in Europe is indicated by Z. Sedereviciute-Paciauskiene and R. Vainoryte (2015). All these questions are topical in the Czech Republic (CR) as well. The education system in the Czech Republic has its strengths, including, among other things, the tradition in adult education (from guilds and fellowships in the 19th century, interest and later professional organizations in the first half of the 20th century, the development of corporate education in the 1970s, to the present notion of lifelong learning in its various forms). However, education in the CR also has its weaknesses, including, among other things, political instability and unclear division of competences between the state and its territorial components, even though the plans for the development of adult education in the CR are outlined in several dozens of documents developed at national level. Secondary education plays a crucial role in the Czech education system, as it prepares young people for direct entry to the labour market and, in case of specializations that are concluded with a graduation exam, for further study at higher vocational schools or universities. In May 2017, the implementation of the individual project "Modernization of Vocational Education" began; the aim of the project is, among other things, to boost employment prospects of graduates of secondary vocational schools on the labour market. One area was also focused on linking the National Register of Qualifications with School Education Programmes with the aim to respond more flexibly to current needs of the labour market (MSMT, 2018).

The Education Policy Strategy of the CR up to 2020 (Education Strategy 2020), which replaced the National Programme for the Development of Education of 2001 (White Paper), set three key priorities. The first priority is the reduction of inequalities in the education sector. The second is the support of quality teacher education. The third priority is a responsible and effective management of the education system. In the context of the above changes, new requirements for pedagogical staff emerged and the existing requirements were extended and their competencies need to be developed–(Strategy for

Education…, 2018). The changes in education policy also emphasize the need to develop the management of educational institutions. Directors of schools must continuously expand their area of activities, as well as their management skills. In addition to being responsible for instruction, they also assume extensive competencies in other areas of activities of the school linked to management, personnel policy, administration, etc. Specific forms of training of school managers already exist today; however, the question remains whether they reflect the necessary changes in the required competencies.

In accordance with the above mentioned, the main aim of the paper is to identify motivation for study and the problems that adults face in connection with their studies at the Institute of Education and Communication (IEC) of the Czech University of Life Sciences Prague.

**Methodology**

The first part of the paper introduces theoretical approaches to management of human resources in the education sector. It also contains an analysis of the situation in Czech education system based on information obtained from the Organisation for Economic Co-operation and Development (OECD). The first method of research is the analysis of the available documents, especially those related to education. They include legislative documents, selected materials and surveys carried out by the OECD, the Ministry of Education, Youth and Sports (MEYS) and relevant bibliography. The second pillar of the research is a questionnaire survey among students of the 1st – 3rd year of part-time study of the Bachelor study programme Pedagogy for Teachers in Vocational Subjects (PTVS) at IEC in the years 2012–2013, 2015–2016 and 2018–2019. The results are categorized according to the 1st degree (enumeration of absolute frequencies) and the 2nd degree, where the relations between two variables are discovered. Using a contingency table, the relationship between the two variables is measured using the Chi-squared test, the Pearson's and Cramer's contingency coefficients, which determine the degree of dependence of the variables.

**Management of human resources in the education sector**

In the theory of management, human capital is considered to be part of the intellectual capital, which counterbalances the financial capital, and in addition to the human capital it also includes structural and customer capital ("relational capital") (Tureckiova, Veteska, 2008, 27). W. Smith and R. Tinning (Smith, Tinning, 2011, 238) also distinguish between cultural and symbolic capital. "Cultural capital is a specific competence that can be utilized when an individual's abilities and his/her performance are in harmony. The accumulation of the cultural capital is one of the means to increase performance. The ownership of the symbolic capital allows the holder to exercise all his competencies and use them also in the framework of social relationships. In the field of education, the acquired knowledge about schools, teaching and learning form the symbolic capital."

At school, effective leadership of people can be characterized by the existence of visions and long-term goals, a strategy of how to achieve them, a sufficient level of creativity, sensitivity towards both workers and pupils, a good division of labour, pro-active and professional management of change, but above all the ability to motivate and inspire co-workers to fulfil the vision and goals of the school. Effective leadership of the school depends primarily on the personality of the director and in their relationship with colleagues and pupils (Svetlik, 2009, 271). Leadership of people is an art or a process of influencing people so that they contribute willingly and enthusiastically to achieving of group goals (Weinhrich, Cannice, Koontz, 2009, 368). People are the most valuable capital of any school. Experience shows that a school can only be as good as the people who work in it (Svetlik, 2009, 288). A good and creative atmosphere among teacher staff is a very important element which directly affects also the atmosphere among pupils. M. Armstrong's definition: "People and their collective skills, abilities and experience, coupled with their ability to deploy these in the interests of the employing organization, are now recognized as making a significant to organizational success and as constituting a significant source of competitive advantage" (Armstrong, 2006, 14) is exceptionally true for education.

The style of leadership affects the strategy, the structure, the systems, the processes and the relationships within an organization and ultimately it creates an organizational culture that enhances the performance of the organization (Pillay, Pillay, 2012, 540). H.C. Ngambi adds that "One of the most important leadership skills that are important to enhance the morale in the workplace is good communication and the ability to cope with change" (Ngambi, 2011, 765). While the pedagogical literature is increasingly concerned with the motivation of pupils, very little theoretical study has been done into the motivation of pedagogical staff and in general only certain practical experience can be used, unfortunately rather negative one, such as teacher burn-out (Svetlik, 2009, 281).

Remuneration is a specific area of care for employees. Teachers' salaries or wages have been low in the Czech Republic for a long time now, which contributes to the low appeal of this profession. This is due to relatively low funding of education, in which salaries or wages are the main cost. The teachers' dissatisfaction with the remuneration is also documented in the research under the title "An Analysis of the Prerequisites and Educational Needs of Pedagogical Staff for Improvement of Their Work", which was carried out by the Ministry of Education, Youth and Sports in 2006. The research shows that teachers themselves say that the prestige of their profession would be enhanced if their remuneration increased (32 % of respondents), that the Ministry of Education, Youth and Sports should take care of the increase in prestige (25 %) and that the importance of the teaching profession should be promoted by the media (15 %). On the other hand, the same percentage of teachers involved in the research say that it is primarily the responsibility of teachers and the teachers' associations to increase the prestige of the teaching profession. The fewest teachers (10 %) are of the opinion that no special effort to raise the prestige is needed – every teacher has the prestige they deserve (MSMT, 2009, 50–51). The fact that teachers first mention the low remuneration is in line with the OECD survey (OECD, 2017), which states that in the OECD countries teachers earn on average 96 % of the salaries of employees with a similar education, while in the CR it is 63 %. The average salary of a teacher after 15 years of employment in the OECD countries is on average USD 34,534 per year, while in the CR it is USD 18,971 per year (OECD, 2017).

The quality of the pedagogical staff to a significant degree depends on their education; consequently, focus is put on education in all the countries of the European Union (EU). In 2010, the European Council adopted the new Europe 2020 strategy, which draws on the previous Lisbon strategy. Its key priorities include an emphasis on environmental issues, innovation and education. The so-called European Higher Education Area was introduced in 2010, in the framework of which member states decided to use common tools and implement reforms of higher education. The Eurydice Information Network was established to promote cooperation and mobility. Also, EU education programmes have a big impact on the professional development of teachers. In 2017, the Erasmus programme was ranked as one of the most successful programmes contributing to the professional development of teachers (European Commission, 2017, 5).

In the area of vocational training, the principles of European cooperation are defined by the Strategic Framework for European Cooperation in Education and Training, so called ET2020. In addition to a vision for the development of education in Europe by 2020, it outlines a total of four strategic goals that correspond to the complex focus on lifelong learning (either formal, non-formal or informal), namely: 1) to implement lifelong learning and mobility; (2) to improve the quality and efficiency of education and training; 3) to promote equity, social cohesion and active citizenship; 4) to improve creativity and innovation, including entrepreneurship, at all levels of education and training (European Commission, 2018).

## Education in the Czech Republic and its funding

The economy of every country in the world is a mixed economy – a combination of private enterprise working through the marketplace and government regulation, taxation and programmes (Samuelson, Nordhaus, 2010, 25). National economy can be classified according to the way of financing into profit and non-profit sector. Non-profit sector, also called public sector, is characterized by state and self-governing ownership; a private ownership is typical for the private sector. How much of a priority education is for the individual countries can be judged, among other things, by the amount of money they spend on education. According to the OECD annual survey that compares educational systems of the OECD countries through selected indicators, it is clear that the CR spent 3.99 % of GDP on education in 2014. In the OECD countries, however, it was 5.16 % of GDP (OECD, 2017). In terms of total public expenditure on education, in the OECD countries it is on average 11.3 % of public expenditure. The CR with 7.8 % is significantly below the OECD average (OECD, 2017).

### Lifelong learning in the Czech Republic

The general objective of the Czech Republic's Education Strategy is to improve the results and motivation of children, pupils and students at all levels of the education system. At the same time, it focuses on the development of the education system based on the concept of lifelong learning. Educational policy must therefore pay attention to all types of educational opportunities, i.e. not only to formal education, but also to non-formal education and the growing area of informal learning. One of the main implementation documents of the Czech Republic's Education Strategy is the Long-term Plan for Education and the Development of the Education System of the CR 2015–2020 (Long-term Plan). The Long-term Plan also includes a chapter on Education for Sustainable Development (ESD). Its objectives include creation of a functional environment for further education that will enable acquisition of knowledge and skills in the field of sustainable development and which will systematically offer up-to-date education programmes for educators, public administration, the business sector and non-profit non-governmental organizations focused on the practical application of sustainable development and that will ensure fair accessibility of ESD for the public in the CR (MSMT, 2014).

### Education of pedagogical staff in the Czech Republic

In addition to the above-mentioned national documents, education of pedagogical staff in the CR is addressed by a number of legal standards. They include:

- Act No. 561/2004 Coll. on Preschool, Elementary, Secondary, Higher Vocational and Other Education, whose amendment by Act No. 101/2017 Coll. brought about, among other things, a reform of the financing of regional schools and regulation of rights and obligations of pedagogical staff.
- Act No. 111/1998 Coll. on Higher Education Institutions, which includes a provision on lifelong learning programmes (Section 60).
- Act No. 179/2006 Coll. on Verification and Recognition of Further Education Results, which regulates the National Register of Qualifications.
- Act No. 262/1996 Coll., the Labour Code, which stipulates the obligations of employers to take care of the professional development of employees, deepening and enhancement of qualification (Sections 230 – 235), Act No. 435/2004 on Employment, which defines the measures for the development of human resources (§ 104 – 110) within the active employment policy.
- Act No. 563/2004 Coll. on Pedagogical Staff, as amended. The problem is that, along with this law, a career charter (system) should have been introduced that would define the right to financial remuneration for employees that would comply with the requirement to work on their professional and career growth. However, it was rejected by the Chamber of Deputies of the Czech Parliament in July 2017.

### Results and discussion

### Own research at the Institute of Education and Communication

The Czech University of Life Sciences (CULS) in Prague offers a bachelor programme PTVS. The PTVS programme is intended primarily for teachers of practical education at secondary vocational schools or vocational schools who need to obtain the appropriate education for the profession. In addition, it is also attended by people who are self-employed or by employees in other sectors who are considering a future career in the field of practical education.

### Questionnaire survey

The questionnaire survey was conducted in three waves, between 2012–2013 (in the tables as A), 2015-2016 (in the tables as B) and 2018–2019 (in the tables as C), so that students of the PTVS programme in all years of their study who were currently studying at IEC could participate in it at one time. In the 2012–2013 academic year, a total of 67 students, in 2015–2016 a total of 74 students and in 2018–2019 a total of 102 students in the 1st – 3rd year of the PTVS bachelor programme participated in the survey, i.e. 243 students in total. The questionnaire was anonymous and contained 10 questions; respondents could only choose one answer option. The data were arranged in tables of absolute frequency. Due to the low occurrence of frequencies of some of the variants of answers to question 3, the variables were re-categorized and merged into the answer "Self-employed and others"; for the last

3 questions there were no "No" and "Don't know" answers. Results of questionnaire survey among students of PTVS are shown in the tables below.

Table 1

**Identification data of the respondents**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sex** | **Female** | | | | | | **Male** | | | | | |
| | A | | B | | C | | A | | B | | C | |
| | 51 | | 60 | | 64 | | 16 | | 14 | | 38 | |
| | 175 | | | | | | 68 | | | | | |
| **Age** | **30 years and younger** | | | **31 – 40 years** | | | **41 – 50 years** | | | **51 years and older** | | |
| | A | B | C | A | B | C | A | B | C | A | B | C |
| | 22 | 15 | 33 | 19 | 17 | 22 | 15 | 25 | 29 | 11 | 17 | 18 |
| | 70 | | | 58 | | | 69 | | | 46 | | |
| **Position on the labour market** | **Employee in the education sector** | | | **Employee in another sector** | | | **Self-employed and others** | | | | | |
| | A | B | C | A | B | C | A | B | C | | | |
| | 47 | 38 | 40 | 18 | 24 | 47 | 2 | 12 | 15 | | | |
| | 125 | | | 89 | | | 29 | | | | | |

Table 1 shows that, under 30 years of age, followed by the age category 41–50 years, the remaining two categories are less represented, 125 students are employees in the education sector.

Table 2

**Reasons for starting a study and problems with it**

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Reason for studying at IEC** | **Employer's requirement to increase qualification** | | | **Own interest to increase qualification, need to educate oneself** | | | **Expected financial gain after completion of studies** | | | **Increase in employment prospects** | | | | |
| | A | B | C | A | B | C | A | B | C | A | B | C | | |
| | 17 | 18 | 24 | 36 | 44 | 61 | 1 | 4 | 5 | 13 | 8 | 12 | | |
| | 59 | | | 141 | | | 10 | | | 33 | | | | |
| **Biggest obstacle to studying at IEC** | **Time demands** | | | **Financial demands** | | | **No support from employer** | | | **Studies are too demanding** | | | **No problems** | | |
| | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C |
| | 40 | 36 | 55 | 2 | 4 | 3 | 17 | 18 | 24 | 0 | 4 | 6 | 8 | 12 | 14 |
| | 131 | | | 9 | | | 59 | | | 10 | | | 34 | | |
| **Are you satisfied with the form of study?** | **Fully satisfied** | | | **I'd appreciate more contact instruction** | | | **I'd appreciate less contact instruction** | | | | | | | |
| | A | B | C | A | B | C | A | B | C | | | | | |
| | 59 | 58 | 92 | 3 | 9 | 4 | 5 | 7 | 6 | | | | | |
| | 209 | | | 16 | | | 18 | | | | | | | |
| **What, apart from knowledge, does study at IEC provide to you?** | **Good feeling that I work on my development** | | | **Possibility to meet new people** | | | **Possibility to leave stereotype at work** | | | **Possibility to know new environment** | | | | |
| | A | B | C | A | B | C | A | B | C | A | B | C | | |
| | 45 | 42 | 81 | 16 | 20 | 11 | 3 | 5 | 8 | 3 | 7 | 2 | | |
| | 168 | | | 47 | | | 16 | | | 12 | | | | |

Table 2 clearly demonstrates that the most common reason for studying at IEC was own interest in improving qualifications and the need to educate oneself, followed by employers‘ requirement to increase employee‘s qualification, to a lesser degree also an increase in employment prospects; only 10 respondents expect a financial gain after completion of studies. Furthermore, it can be concluded that the majority of respondents stated that the biggest obstacle to their studies was time demands (131), followed by low support from the employer (59). Of the total number of respondents, 86 % students are satisfied with the form of study at IEC, the number of respondents who would appreciate less contact instruction is not significantly different from the number of respondents who would appreciate more contact instruction.

In addition to acquiring the necessary knowledge and competencies, the most common reasons for studying at IEC include the students‘ good feeling that they work on their development (168), the possibility to meet new people (47), to a lesser extent also the possibility to know new environment and to leave stereotype at work at least for a while.

Table 3

**Satisfaction with studies at IEC**

| | **Yes** | | | **Rather yes** | | | **Rather no** | | |
|---|---|---|---|---|---|---|---|---|---|
| **Study materials are appropriate** | A | B | C | A | B | C | A | B | C |
| | 36 | 35 | 37 | 27 | 30 | 51 | 4 | 9 | 14 |
| | 108 | | | 108 | | | 27 | | |

| | **Yes** | | | **Rather yes** | | | **Rather no** | | |
|---|---|---|---|---|---|---|---|---|---|
| **From the point of view of quality, the studies fulfilled your expectations** | A | B | C | A | B | C | A | B | C |
| | 43 | 43 | 40 | 20 | 18 | 51 | 4 | 13 | 11 |
| | 126 | | | 89 | | | 28 | | |

| | **Yes** | | | **Rather yes** | | | **Rather no** | | |
|---|---|---|---|---|---|---|---|---|---|
| **Based on previous experience, would you choose to study at IEC again?** | A | B | C | A | B | C | A | B | C |
| | 56 | 57 | 74 | 8 | 13 | 26 | 3 | 4 | 2 |
| | 187 | | | 47 | | | 9 | | |

Table 3 shows that the respondents are mostly satisfied with the study materials (*yes*, or *rather yes* – 216 respondents), yet it is necessary, even given the low number of 27 students who are rather dissatisfied, to think about how to improve the quality of the study materials or their accessibility. In terms of the quality of education, the studies fulfilled the expectations of the majority of respondents (yes, or rather yes – 215 respondents), almost all of them would again choose to study at IEC (*yes*, or *rather yes* – 234 respondents, which equals 99% of respondents).

In the next part, the dependence on whether or not a student is employed in the education sector or in another sector or self-employed in relation to the reason for studying and the biggest obstacle at IEC was assessed by a contingency table using the Chi-squared test, the Pearson’s and Cramer’s contingency coefficients. There was a total of 125 employees in the education sector and 118 respondents employed in other sectors or self-employed. The initial conditions were as follows:

- $H_0$: the variables are independent,
- $H_1$: the variables are dependent,
- Selected level of significance: $\alpha = 0.05$

Table 4 provides the findings as follows. The relationship between the position of the respondent on the labour market and the reason for studying at IEC is medium (the Pearson’s coefficient of contingency is 0.44 and the Cramer coefficient of contingency is 0.5). Therefore, we reject $H_0$ about the independence of the variables and accept the alternative hypothesis $H_1$ and conclude that a dependence exists between whether the respondent is an employee in the education sector and their reason for studying at IEC. Employees in the education sector, unlike other employees or self-employed persons, more often cited the employers’ requirement to start studying, but 56 of them also cited their own interest to increase their qualification and educate themselves.

Table 4

**Contingency table of absolute frequencies between the position on the labour market and the reason for studying at IEC**

| Position on the labour market | Reason for studying at IEC | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Employer's requirement | | | Own interest, need to educate oneself | | | Expected financial gain | | | Increase in employment prospects | | |
| Employee in the education sector | A | B | C | A | B | C | A | B | C | A | B | C |
| | 18 | 17 | 20 | 21 | 18 | 17 | 3 | 1 | 1 | 5 | 2 | 2 |
| | 55 | | | 56 | | | 5 | | | 9 | | |
| Employee in another sector or self-employed | A | B | C | A | B | C | A | B | C | A | B | C |
| | 0 | 0 | 4 | 16 | 22 | 42 | 0 | 0 | 4 | 4 | 14 | 12 |
| | 4 | | | 80 | | | 4 | | | 30 | | |

Table 5 reveals that time demands were mentioned 128 times (out of which 68 in case of employees in the education sector) as the biggest obstacle, followed by not having support from the employer (58 in total). In this case, the dependence between the position of the respondent on the labour market and the biggest obstacle to studying at IEC has not been proven (the Pearson's coefficient of contingency is 0.06, the Cramer's coefficient of contingency is 0.06). Therefore, we do not reject $H_0$ about the independence of the variables and we conclude that no dependence exists between whether the respondent is an employee in the education sector and obstacles to the studies.

Table 5

**Contingency table of absolute frequencies between the position on the labour market and the biggest obstacle to studying at IEC**

| | Biggest obstacle to studies at IEC | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Position on the labour market | Time demands | | | Financial demands | | | No support from employer | | | Studies are too demanding | | | No problems | | |
| Employee in the education sector | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C |
| | 22 | 24 | 22 | 4 | 1 | 1 | 10 | 8 | 11 | 5 | 0 | 3 | 6 | 5 | 3 |
| | 68 | | | 6 | | | 29 | | | 8 | | | 14 | | |
| Employee in another sector or self-employed | A | B | C | A | B | C | A | B | C | A | B | C | A | B | C |
| | 9 | 17 | 34 | 1 | 1 | 2 | 5 | 12 | 12 | 1 | 0 | 3 | 4 | 6 | 11 |
| | 60 | | | 4 | | | 29 | | | 4 | | | 21 | | |

However, it is still surprising that 29 employees in the education sector state that they have no support from the employer, although the previous table clearly shows that in many cases the employer is the one that requires their employees to participate in further education.

## Conclusions

The Czech Republic has limitations in the education of pedagogical staff, especially in the framework of employers' support in the care for employees. The role of the state will be to continuously increase the motivation of the two actors. The Education Policy Strategy of the Czech Republic up to 2020 has set as one of its strategic priorities the support of quality education and teachers. In 2017, however, the career charter for teachers was rejected in the legislative process; it aimed to support the lifelong professional development of teachers and link it to the remuneration system. The individual project "System for Supporting the Professional Development of Teachers and Directors" may provide a certain alternative solution. Its aim is to develop a new concept that systematically and comprehensively supports the professional growth of educators with an emphasis on quality.

In line with the facts presented, the researchers have focused on the motivation for studying and the problems that adults, the target group, face in connection with their studies at a particular educational institution. The following are the most interesting findings: Women were the dominant group among the target group of teacher candidates concerned. The most common reason for studying at IEC was own interest of the respondents in improving their qualification and the need to educate oneself, followed by employer's requirement to increase employee's qualification. It can be concluded that the majority of the respondents stated that the biggest obstacle during their studies was connected with time demands, followed by low support from the part of their employer. A positive fact, as for the quality of education, is that the majority of the teacher candidates are satisfied with the part-time form of study, they evaluate the study resources in a positive way, and overall, the studies fulfilled their expectations and almost all of the respondents would choose to study at the particular institution again.

To conclude, and hopefully to indicate the positive development on the political scene, in the course of 2017, a draft amendment to the Education Act was adopted which introduces a new system of financing of regional schools, which will replace financing through the "national norms" that are determined by the Ministry of Education, Youth and Sports as the amount of expenditure for education of one pupil or student. This change in financing was also recommended by the OECD. The main difference will be the consideration of the size and structure of the specializations and the financing of pedagogical work according to direct pedagogical activity. Only after the changes are implemented, i.e. after 1 January 2019, it will become evident how this change will affect the teacher assessment and the amount of funds provided to individual schools. Regional schools will continue to be financed from funds appointed for development programmes through the Operational Programme "Research, Development and Education" from the European Structural and Investment Funds, while individual system projects will also be supported. A more efficient use of the resources from the European Social Fund could again lead to the development of teacher competencies. In addition to the Structural Funds, teacher education can also be financed from the programme Horizon 2020.

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